Appendix D – Biological Resources Report

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5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

CDH Vidal LLC
860 Wyckoff Avenue, Suite 200
Mahwah, New Jersey 07430

Subject: Biological Resources Reconnaissance Assessment for the Vidal Solar Interconnection Project

Chambers Group, Inc. (Chambers Group) was retained by CDH Vidal LLC (CORE), a private solar development company and the project proponent to conduct a literature review and biological reconnaissance-level survey for the interconnect of a proposed photovoltaic (PV) to its electrical transmission system. The Vidal Solar Interconnection Project (hereinafter referred to as the Project) is located near Vidal in San Bernardino County, California on privately owned lands, Bureau of Indian Affairs (BIA)-managed lands, and lands administered by the Bureau of Land Management (BLM).The purpose of this survey was to document existing vegetation communities, conduct a jurisdictional waters assessment, identify special status species with a potential for occurrence, and map habitats that could support special status wildlife species as well as evaluate potential impacts of the Project to these resources.

Project Background

The PV solar plant is located approximately 2.5 miles southeast of Vidal, an unincorporated area of San Bernardino County that is located just east of U.S. Route 95, just north of the Riverside County line, and just west of the Colorado River (Attachment 1: Figure 1 – Project Location and Vicinity). The PV solar site encompasses approximately 1,090 acres within 25 privately owned parcels (in their entirety and portions of) that are in the process of lease acquisition by CORE. A biological reconnaissance survey, jurisdictional delineation, and focused surveys for special status plants, desert tortoise (*Gopherus agassizii*) and burrowing owl (*Athene cunicularia*) were conducted for the PV solar site. The results are found in the Biological Resources Report for the Vidal Energy Project (Chambers Group, December 2020).

CORE plans to install approximately 52 miles of new 48-strand overhead fiber optic grounding wire on the Headgate Rock-Blythe 161-kilovolt (kV) transmission line between the headgate Rock and Blyth station, looped through the Western Area Power Administration (WAPA) interconnection switchyard. This plan will require temporary access to 31 pull sites (a construction area used to stage equipment required for installing conductor) along the west end of the Colorado River Reservation, San Bernardino and Riverside counties, California. No Riverside Multiple Species Habitat Conservation Plan (MSHCP) Criteria Cells or Conservation Areas are located within the Project area.

The fiber optic grounding wire will be placed onto existing transmission line poles. All work and access (other than pull sites) are contained within the existing road prism and do not require an environmental assessment for sensitive resources.

Methods

The Survey Area encompasses the 31 temporary pull sites that are required for installing conductor on an existing transmission line.

Literature Review

Prior to performing the biological reconnaissance survey, Chambers Group staff conducted a literature review for soils, jurisdictional water features that contribute to hydrology, and special status species known to occur within the vicinity (approximately 5 miles) of the Survey Area.

Soils

Prior to performing the biological reconnaissance survey, soil maps for the Survey Area were referenced in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2022).

Preliminary Jurisdictional Delineation

A desktop assessment was conducted of available data prior to the biological reconnaissance survey in the field. Once completed, a preliminary delineation was performed for the Survey Area. A general assessment of waters potentially regulated by the U.S. Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) was conducted for the Survey Area.

Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Wildlife Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

Field verification of all USFWS National Wetland Inventory (NWI) drainages (USFWS 2022a) were conducted for the Survey Area. Active channels and drainages were mapped by identifying clear evidence of hydrology including sediment deposition, shelving, drift deposits, and destruction of vegetation. These characteristics were used to inventory the active channels and drainages during the surveys.

Special Status Habitats and Species

The most recent records of the USFWS sensitive species database (USFWS 2022b), California Natural Diversity Database (CNDDB) managed by CDFW (2022) and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2022) were reviewed for the following quadrangles containing and surrounding the Project: *Ripley, Mccoy Wash, Blythe NE, Big Maria Mountains SE, Big Maria Mountains NE, Vidal, Parker SW, Parker NW,* and *Parker,* California U.S. Geological Survey (USGS) 7.5-minute quadrangles. These databases contain records of reported occurrences of federally or State-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the vicinity of the Survey Area (Attachment 1: Figure 2 – CNDDB Occurrences Map and Figure 3 – USFWS Critical Habitat Map).

Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on foot within the Survey Area. During the survey, the biologists identified and mapped all vegetation communities found within the pull sites onto aerial photographs (Attachment 1: Figure 4 – Vegetation Communities Map). Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual*, *Vascular Plants of California, Second Edition* (Baldwin et al. 2012). Plant and wildlife species observed or detected within the Survey Area were recorded (Attachments 2 and 3, respectively). In addition, site photographs were taken depicting current site conditions (Attachment 4).

Results

Chambers Group biologists Paul Morrissey, Erik Olmos, Heather Franklin and Jessica Calvillo conducted the biological reconnaissance survey of the Survey Area to identify vegetation communities, identify the potential for occurrence of special status species, and/or habitats that could support special status wildlife species, and conduct a preliminary

jurisdictional waters assessment. The survey was conducted between 0600 and 1700 hours May 2 through May 5, 2022. Weather conditions during the survey included temperatures ranging from 65 to 98 degrees Fahrenheit, wind speeds between 0 and 8 miles per hour, with cloud cover ranging from 0 to 50 percent, and no precipitation.

Biological Site Conditions

The Survey Area is situated along an existing transmission line, primarily along the west side of the Colorado River. Pull sites 12-9 south to 25-4 are within San Bernardino County. Pull sites 25-4 (located in both San Bernardino and Riverside counties) south to pull site 64-4 are located in Riverside County. The Project lies between relatively flat alluvial floor of Vidal Valley, eastern Rice Valley, and the valley surrounded by Big Maria Mountains and McCoy Mountains, the eastern slopes of the Riverside Mountains and Big Maria Mountains, and the agricultural areas of north Blythe. Elevation ranges between 272 and 452 feet above mean sea level (amsl). Many alluvial braided channels and ephemeral drainages cross the Survey Area.

Soils

According to the results from the USDA NRCS Web Soil Survey (USDA 2022), the Survey Area is located in the Colorado Desert Area, CA803; Colorado River Indian Reservation, Parts of La Paz County, Arizona, and Riverside and San Bernardino counties, AZ Areas, 656; and Palo Verde Area, CA681 parts of the soil map. Six soil types are known to occur within and/or adjacent to the Project site. These soil types are described below.

- Carrizo extremely gravelly coarse sand, 0 to 3 percent slopes is a soil found on floodplains and is derived from stratified mixed igneous alluvium. A typical soil profile consists of extremely gravelly coarse sand to a depth of 5 inches, followed by very gravelly coarse sand to a depth of 60 inches. This excessively drained soil type is characterized by low runoff and a very low water storage profile.
- Gilman fine sandy loam, strongly saline, 0 to 3 percent slopes typically occurs on floodplains and is derived from stratified mixed alluvium. The typical profile for this soil is fine sandy loam from 0 to 10 inches and very fine sandy loam from 10 to 60 inches. It is well drained with a low runoff and a very low water storage profile.
- Gunsight very gravelly sandy loam, 15 to 60 percent slopes is typically found in fan terraces and is derived from calcareous stratified mixed alluvium. The profile for this soil is very gravelly sandy loam from 0 to 2 inches, very gravelly sandy clay loam from 2 to 12 inches, and extremely gravelly sandy loam from 12 to 60 inches. This is a somewhat excessively drained soil with a high runoff class and a low water storage profile.
- Badland occurs from 300 to 700 feet amsl and is derived from residuum weathered from sedimentary rock. The profile consists of unweathered bedrock from 0 to 37 inches. This soil has a very high runoff class and a moderately high water storage profile.
- Badland-Torriorthents-Torripsamments complex, 10 to 60 percent slopes is a soil complex composed of 35 percent Badland, 30 percent Torriorthents and similar soils, 20 percent Torripsamments and similar soils, and 15 percent of other minor components. Torriorthents are hillslopes formed from unconsolidated alluvium derived from claystone and/or unconsolidated sediment alluvium derived from sandstone and siltstone with 20 to 45 percent slopes. A typical soil profile consists of very gravelly sandy loam to a depth of 10 inches and extremely gravelly sandy loam below 10 inches. Torriorthents are characterized by high runoff and low water storage profile. Torripsamments are hillslopes formed from the same parent material as Torriorthents with 10 to 30 percent slopes. A typical soil profile consists of fine sand to a depth of 60 inches. Torripsamments are also characterized by high runoff and low water storage profile.

- Superstition gravelly loamy fine sand, 0 to 3 percent slopes comprises somewhat excessively drained soils found on terraces and is derived from alluvium and sandy eolian deposits. A typical soil profile consists of gravelly loamy fine sand to a depth of 1 inch followed by loamy fine sand to a depth of 60 inches. This soil type is characterized by very low runoff and a low water storage profile. Superstition Series soils are important for livestock grazing and irrigated cropland. Vegetation typical of this soil series includes creosote and bur-sage.

Hydrology

The Survey Area is located within the Vidal Wash (Hydrologic Unit Code (HUC 1503010402), the Upper Parker Valley-Colorado River (HUC 1503010403), the Lower Parker Valley-Colorado River (HUC 1503010404), the Palo Verde Valley (HUC 15030310408), and the McCoy Wash (HUC 1503010405; USDA 2022) watersheds in San Bernardino and Riverside counties, California (Attachment 1: Figure 5 – Watersheds Map). The Vidal Wash Watershed is bounded on the west by the Turtle Mountains, on the north by the Mopah Mountains, and on the south by the Riverside Mountains. The southeastern corner of the Vidal Wash Watershed joins the Colorado River southeast of Vidal (Google Earth 2022). The Upper Parker – Colorado River Watershed is bounded by the Whipple Mountains on the northeast, by the Buckskin Mountains on the East, and by Riverside Mountains on the southwest. Agricultural areas and the Colorado River cut through the southern portion of the Upper Parker – Colorado River Watershed trending northeast to southwest (Google Earth 2022). The Lower Parker Valley-Colorado River Watershed is Riverside Mountains and the Big Maria Mountains to the west and Parker Valley to the east. The Colorado River runs parallel through the middle of this watershed. The Palo Verde Valley Watershed is bounded by the northeast by the Big Maria Mountains and the Colorado River to the east. A small portion of the Project runs through the McCoy Wash Watershed, which is bounded by the Big Maria Mountains to the northeast and agricultural fields to the south.

Alluvial braided channels and ephemeral drainages are the major water source for all of these watersheds. Within the Vidal Wash and the Upper Parker Valley-Colorado River watersheds in San Bernardino County, hundreds of unnamed ephemeral drainages and braided channels receive runoff immediately after rain events from the Turtle Mountains to the west and Whipple Mountains to the north of the Project through Vidal Valley. The major wash system within Upper Parker Valley-Colorado River Watershed includes Ash Creek. The major wash system within the Vidal Wash Watershed includes Vidal Wash.

Within the Lower Parker Valley-Colorado River, Palo Verde Valley, and the McCoy Wash watersheds in Riverside County to the south, hundreds of unnamed ephemeral drainages receive runoff immediately after rain events from the Riverside Mountains from the west, Big Maria and Little Maria Mountains further south from the west, and finally the McCoy Mountains in the southern portion of the Project, west and northwest of the Blythe Airport. All runoff from these drainages ultimately terminates in the Colorado River. The Colorado River, a major river of North America originating from the Rocky Mountains of Colorado, generally flows west and south for 1,450 miles and terminates into the Gulf of California in northwestern Mexico.

FEMA Flood Hazard Zones

Federal Emergency Management Agency (FEMA) flood hazard zones (Area of Undetermined Flood Hazard) occur throughout the Survey Area. FEMA Special Floodway occurs within the Colorado River and cross at pull sites 14-3 and 14-6. One percent Annual Chance Flood Hazard and 0.2 percent Chance Flood Hazard occur primarily east of the Colorado River. FEMA Flood Hazard Zones are provided in Attachment 1: Figure 6.

Vegetation Communities and Other Areas

Fifteen vegetation communities or land types were found within the Survey Area during the biological reconnaissance survey. A total of 49.35 acres of vegetation were mapped within the Survey Area, comprised of a total of 37.23 native

vegetation and 12.13 acres non-native vegetation. Eight native vegetation communities were mapped including Allscale Scrub, Distrubed Allscale Scrub, Arrow Weed Thickets, Blue Palo Verde-Ironwood Woodland, Brittlebush Scrub, Creosote Scrub, Creosote Scrub – Brittlebush Scrub, Iodine Bush Scrub, Mesquite Thickets, and Quailbush Scrub. The majority of the Survey Area was comprised of Creosote Scrub. Four non-native communities were mapped including Agriculture/Ornamental, Bare Ground, Disturbed, and Tamarisk Thickets. In addition, Open Water was also mapped.

The vegetation communities and total acreage is found in Table 1 and are described below.

Table 1. Vegetation Communities Within Survey Area

Vegetation Communities	Acres
Native Communities	
Allscale Scrub	0.01
Arrow Weed Thickets	0.81
Blue Palo Verde - Ironwood Woodland	3.04
Brittlebush Scrub	0.86
Creosote Bush Scrub	29.19
Creosote Bush – Brittlebush Scrub	0.06
Disturbed Allscale Scrub	0.73
Iodine Bush Scrub	1.43
Mesquite Thickets	0.61
Open Water	0.18
Quailbush Scrub	0.31
Total for Native Communities	*37.23*
Non-native/Other Communities	
Agriculture/Ornamental	2.03
Bare Ground	5.63
Disturbed	2.98
Tamarisk Thickets	1.49
Total for Non-native/other Communities	*12.13*
Total for all Vegetation Communities	**49.35**

Allscale Scrub

Allscale Scrub is found in washes, playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes (Sawyer et al. 2009). Soils may be carbonate rich, alkaline, sandy, or sandy clay loams. Allscale (*Atriplex polycarpa*) is often dominant in the shrub canopy and can be associated with species such as white bur-sage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), four-wing saltbush (*Atriplex canescens*), red brome (*Bromus madritensis* subsp. *rubens*), and creosote bush (*Larrea tridentata*). Emergent trees may be present at low cover, including honey mesquite (*Prosopis glandulosa*). Shrubs are typically less than 3

meters tall with a canopy that is open to continuous. The herbaceous layer is variable, including seasonal annuals (Sawyer et al. 2009).

Areas with Allscale Scrub vegetation are present within the Survey Area at pull sites 16-7 and 59-2. Native plant species found on the Project site typical of this vegetation community included allscale.

Disturbed Allscale Scrub

A disturbed form of Allscale Scrub vegetation is found within the Survey Area. Disturbed vegetation communities have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). Areas with Disturbed Allscale Scrub vegetation are present within the Survey Area at pull site 59-2. Native plant species found on the Project site typical of this vegetation community included allscale, Jimsonweed (*Datura wrightii*), and bush seepweed (*Suaeda nigra*). Non-native species include Mediterranean tamarisk (*Tamarix ramosissima*) and Sahara mustard (*Brassica tournefortii*).

Arrow Weed Thickets

Arrow Weed Thickets are found around springs, seeps, irrigation ditches, canyon bottoms, stream borders, and seasonally flooded washes (Sawyer et al. 2009). Soils are alluvial- or aeolian-derived sands or clay loams that are usually alkaline or saline. Stands occur as dense, narrow thickets along permanent springs and slow-flowing streams or as part of vegetation mosaics that surround alkali springs and marshes. Arrow weed (*Pluchea sericea*) is dominant or co-dominant in the shrub canopy and can occur with species including iodine bush (*Allenrolfea occidentalis*), four-wing saltbush, quailbush (*Atriplex lentiformis*), mule fat (*Baccharis salicifolia*), and tamarisk (*Tamarix* spp.). Emergent trees may be present at low cover, including Fremont cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*) or honey mesquite. Shrubs are typically less than 5 meters tall with a canopy that is intermittent to continuous. The herbaceous layer is sparse with seasonal annuals (Sawyer et al. 2009).

Areas with Arrow Weed Thicket vegetation are present within the Survey Area along the Colorado River and agricultural runoff ditches at pull sites: 49-4, 49-6, 49-8. Native plant species found on the Project site typical of this vegetation community included: Arrow weed. Non-native species include annual beard grass (*Polypogon monspeliensis*).

Blue Palo Verde – Ironwood Woodland

Blue Palo Verde – Ironwood Woodland is found along desert arroyo margins, seasonal watercourses and washes, bottomlands, middle and upper bajadas and alluvial fans, and lower slopes. Soils are sandy, well- drained, and derived from alluvium or colluvium (Sawyer et al. 2009). Ironwood (*Olneya tesota*) and/or blue palo verde (*Parkinsonia florida*) are typically co-dominant, or either species is dominant, in the tree or tall shrub canopy often occurring with desert willow (*Chilopsis linearis*), ocotillo (*Fouquieria splendens*), honey mesquite, and smoke tree (*Psorothamnus spinosus*). Shrubs may include white bur-sage, cheesebush, sweetbush (*Bebbia juncea*), golden cholla (*Cylindropuntia echinocarpa*), brittle bush (*Encelia farinosa*), creosote bush, Anderson's wolfberry (*Lycium andersonii*), or cat claw acacia (*Senegalia greggii*). Trees are typically less than 14 meters tall with a canopy that is open to continuous. The shrub layer is intermittent or open with an herbaceous layer that is sparse with seasonal annuals (Sawyer et al. 2009).

Areas with Blue Palo Verde – Ironwood Woodland vegetation are present within the Survey Area at pull sites: 13-6, 25-1, 25-1, 25-4, 28-2, 29-3, 31-3, 36-3, 37-4, and 44-1. Native plant species found on the Project site typical of

this vegetation community included: ironwood, blue palo verde, cat claw acacia, creosote bush, honey mesquite, and Anderson's wolfberry.

Brittle Bush Scrub

Brittle Bush Scrub is found within alluvial fans, bajadas, colluvium, rocky hillsides, slopes of small washes and rills (Sawyer et al. 2009). Soils are typically well drained, rocky, and may be covered by desert pavement. Some brittle bush stands are long-lived on harsh rocky sites in the desert and inner coastal mountains, while undisturbed stands can give way to creosote bush types under less demanding conditions in the desert (Sawyer et al. 2009). Brittle bush is dominant or co-dominant in the shrub canopy and may often occur with white bur-sage, California sagebrush (*Artemisia californica*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), thick-leaved yerba santa (*Eriodictyon crassifolium*), California buckwheat (*Eriogonum fasciculatum*), California barrel cactus (*Ferocactus cylindraceus*), chaparral yucca (*Hesperoyucca whipplei*), wishbone bush (*Mirabilis laevis*) and/or white sage (*Salvia apiana*). Emergent trees or tall shrubs may be present at low cover, including ocotillo. Shrubs are typically less than 2 meters with a canopy that is open to intermittent. The herbaceous layer is open with seasonal annuals (Sawyer et al. 2009).

Areas with Brittle Bush Scrub vegetation are present within the Survey Area at pull site 50-2. Native plant species found on the Project site typical of this vegetation community included: brittle bush, beavertail cactus (*Opuntia basilaris*), golden cholla, California barrel cactus, and occasional creosote bush.

Creosote Bush – Brittle Bush Scrub

Creosote Bush – Brittle Bush Scrub is found within small washes, rills, alluvial fans, bajadas, and colluvium on upland slopes (Sawyer et al. 2009). Soils are typically well-drained, rocky, may have desert pavement surfaces, and are often derived from granitic or volcanic rock. Brittle bush and creosote bush are co-dominant in this community and equally conspicuous in the shrub canopy where they may occur with white bur-sage, desert holly (*Atriplex hymenelytra*), sweetbush, jumping cholla (*Cylindropuntia bigelovii*), desert trumpet (*Eriogonum inflatum*), California barrel cactus, white rhatany (*Krameria grayi*), beavertail cactus, and wire lettuce (*Stephanomeria pauciflora*). Emergent trees or tall shrubs may be present at low cover, including ocotillo. Shrubs are typically less than 3 meters tall with a canopy that is open to intermittent and two tiered. The herbaceous layer is open with seasonal annuals (Sawyer et al. 2009).

Areas with Creosote Bush – Brittle Bush Scrub vegetation are present within the Survey Area at pull site 50-2. Native plant species found on the Project site typical of this vegetation community included: creosote bush, brittle bush, beavertail cactus, and occasional California barrel cactus.

Creosote Bush Scrub

Creosote Bush Scrub can be found in alluvial fans, bajadas, upland slopes, and minor intermittent washes (Sawyer et al. 2009). Soils in this community are well-drained and sometimes include desert pavement. In sandy situations, it often co-occurs with perennial grasses, and along certain washes and wash terrace deposits with somewhat alkaline soils, it co-dominates with allscale. Plants also may form semi-riparian stands along low-gradient sandy or silty washes (Sawyer et al. 2009). Creosote bush is dominant or co-dominant in the shrub canopy and has been known to occur with goldenhead (*Acamptopappus sphaerocephalus*), white bur-sage, cheesebush, shadscale (*Atriplex confertifolia*), desert holly, allscale, brittle bush, desert tea (*Ephedra californica*), Nevada ephedra (*Ephedra nevadensis*), and Anderson's wolfberry. Emergent trees may be present at low cover, including honey

mesquite or Joshua tree (*Yucca brevifolia*). Shrubs are typically less than 3 meters tall with a canopy that is intermittent to open. The herbaceous layer is open to intermittent with seasonal annuals or perennial grasses (Sawyer et al. 2009).

Areas with Creosote Bush Scrub vegetation are present within the Survey Area at pull sites: 12-9, 13-6, 14-3, 22-4, 25-1, 25-4, 28-2, 29-3 to 44-1, 50-2 to 58-5, and 59-6. Native plant species found on the Project site typical of this vegetation community included: creosote bush, brittle bush, desert trumpet, big galleta (*Hilaria rigida*), pencil cholla (*Cylindropuntia ramosissima*), golden cholla, beavertail cactus, Yaqui mammillaria (*Mammillaria tetrancistra*), foxtail cactus (*Coryphantha alversonii*), rush milkweed (*Asclepias subulata*), cheesebush, and sweetbush. Non-native species present on site include Mediterranean grass and Sahara mustard.

Iodine Bush Scrub

Iodine Bush Scrub can be found on dry lakebed margins, hummocks, playas perched above current drainages, and seeps (Sawyer et al. 2009). Iodine Bush Scrub is dominated by iodine bush. Iodine bush is dominant or co-dominant in the shrub and herbaceous layers and may occur with four-wing saltbush, salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), kochia (*Kochia californica*), alkali sacaton (*Sporobolus airoides*) and bush seepweed. Shrubs in this community are typically less than 7 feet in height with an open to continuous canopy. The herbaceous layer is variable and may include salt grass and alkali sacaton (Sawyer et al. 2009).

Areas with Iodine Bush Scrub vegetation are present within the Survey Area at pull sites 14-6 and 49-4. Native plant species found on the Project site typical of this vegetation community include iodine bush and bush seepweed. Non-native species include Mediterranean tamarisk.

Mesquite Thickets

Mesquite Thickets are found on the fringes of playa lakes, river terraces, stream banks, springs, gullies, floodplains, the rarely flooded margins of arroyos and washes, and sand dunes (Sawyer et al. 2009). Soils in this community are slightly to moderately saline, with a wide range of soil textures. Honey mesquite and/or screwbean mesquite (*Prosopis pubescens*) may be dominant or co-dominant in the small tree canopy with Fremont cottonwood, sandbar willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*), and/or blue elderberry (*Sambucus mexicana*). Shrubs may include iodine bush, white bur-sage, four-wing saltbush, allscale, mule fat, sweetbush, arrow weed, sugarbush (*Rhus ovata*) or bush seepweed. Trees are typically less than 10 meters tall with a canopy that is open to continuous. The shrub and herbaceous layers are open to intermittent (Sawyer et al. 2009). Areas with Mesquite Thicket vegetation are present within the Survey Area at pull sites: 14-3 and 31-3. Native plant species found on the Project site typical of this vegetation community include honey mesquite and Anderson's wolfberry.

Quailbush Scrub

Quailbush Scrub is found on gentle to steep southeast- and southwest-facing slopes (Sawyer et al. 2009). Soils in this community are clays. Stands may be found in a variety of settings, from coastal shrublands to alkali sinks and alkali meadows, to desert washes and oases in southern California, and to saline, intermittently flooded wetlands in the Central Valley. This community especially occurs in disturbed areas, including roadsides and fluvial areas with alkaline soils (Sawyer et al. 2009). Quailbush is dominant in the shrub canopy and can occur with California sagebrush, four-wing saltbush, coyote brush (*Baccharis pilularis*), mule fat, salt grass, California bush sunflower (*Encelia californica*), laurel sumac (*Malosma laurina*), arrow weed, lemonadeberry (*Rhus integrifolia*), alkali

sacaton, and tamarisk species. Emergent trees may be present at low cover, including myoporum (*Myoporum laetum*) or honey mesquite. Shrubs are typically less than 5 meters with a canopy that is open to intermittent. The herbaceous layer is variable (Sawyer et al. 2009).

Areas with Quailbush Scrub vegetation are present within the Survey Area at pull site 49-6. Native plant species found on the Project site typical of this vegetation community included: quailbush, arrow weed, and bush seepweed.

Tamarisk Thickets

Tamarisk Thickets are found along arroyo margins, lake margins, ditches, washes, rivers, and other watercourses (Sawyer et al. 2009). Tamarisk species (*Tamarix* spp.) possess eco-physiological characteristics that make them formidable as invasive plants. They are long-lived shrubs or trees with extensive and deep root systems. They consume large quantities of water, possibly more than any other woody species in similar habitats, because they can obtain water at very low water potentials and have very high water-use efficiencies. They are highly tolerant of alkaline and saline habitats and can concentrate salts in their leaves (Sawyer et al. 2009). Mediterranean tamarisk or another *Tamarix* species would be dominant in the shrub canopy of this community. Emergent trees may be present at low cover, including Fremont cottonwood or willow (*Salix* spp.). Shrubs are typically less than 8 meters with a canopy that is continuous or open. The herbaceous layer is sparse (Sawyer et al. 2009).

Areas with Tamarisk Thicket vegetation are present within the Survey Area at pull sites: 16-7, 31-3, 49-4, and 49-8. Native plant species found on the Project site typical of this vegetation community include quailbush and four-wing saltbush. Non-native species include Mediterranean tamarisk.

Other Areas

Agriculture/Ornamental

Ornamental vegetation includes areas where the vegetation is dominated by non-native horticultural plants (Gray and Bramlet 1992). Typically, the species composition consists of introduced trees, shrubs, flowers and turf grass. Agriculture consists of annual crops, vineyards, orchards, dairies, and stockyards (Gray and Bramlet 1992). A large portion of the Survey Area is actively cultivated as alfalfa (*Medicago sativa*) crops.

Areas with Agriculture/Ornamental vegetation are present within the Survey Area in farmland and putting greens at pull sites: 49-6, 49-8, 59-2, and 59-6. Non-native plant species found on the Project site typical of this vegetation community included: alfalfa, Brazilian pepper (*Schinus terebinthifolius*), and Mediterranean tamarisk.

Bare Ground

Areas with Bare Ground contain no vegetation and include access roads.

Disturbed

Disturbed areas are those areas that are cleared or graded such as dirt roads with scattered vegetation or those areas that have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover).

Areas with Disturbed vegetation are present within the Survey Area at all pull sites with the exception of two: 25-1 and 25-4. Native plant species found on the Project site typical of this vegetation community include bush seepweed, though present in small quantities. Non-native species in Disturbed areas include Sahara mustard.

Open Water

Open Water often contains a number of phytoplankton species and filamentous blue-green and green algae. In shallow water, vascular species including horned pondweed (*Zannichellia palustris*), duckweed fern (*Azolla filiculoides*), and duckweed (*Lemna* sp.) may be found floating on the water surface (Gray and Bramlet 1992).

Areas with Open Water are present within the Survey Area at pull site 14-3 (Main Canal), but no vegetation is present at this location.

The vegetation acreages for each community within each pull site are found in Table 2 below.

Table 2. Vegetation Communities within Pull Sites

Vegetation Community	12-9	13-6	14-3	14-6	16-7	22-4	25-1	25-4	28-2	29-3	31-3	31-4	32-6	33-5	36-3
Agriculture/Ornamental															
Allscale Scrub					0.01										
Arrow Weed Thickets			0.09												
Bare Ground	0.03	0.10	0.53	0.10	0.18	0.05			0.07	0.14	0.09	0.07	0.14	0.14	0.05
Blue Palo Verde - Ironwood Woodland		0.58					0.25	0.05	0.19	0.73	0.29				0.19
Brittle Brush Scrub															
Creosote Bush - Brittle Bush Scrub															
Creosote Bush Scrub	0.66	0.69	0.26			1.32	5.44	5.69	1.11	0.49	0.63	1.29	1.23	1.23	1.13
Disturbed					0.58										
Disturbed Allscale Scrub															
Iodine Bush Scrub				1.28											
Mesquite Thickets			0.26				0.048				0.30				
Open Water			0.18												
Quail Bush Scrub															
Tamarisk Thickets					0.60						0.05				
Total	**0.69**	**1.37**	**1.31**	**1.38**	**1.37**	**1.37**	**5.74**	**5.74**	**1.37**	**1.37**	**1.37**	**1.36**	**1.36**	**1.37**	**1.37**

Vegetation Community	37-4	38-1	38-3	44-1	49-4	49-6	49-8	50-2	52-4	54-1	58-5	59-2	59-6	64-2	64-4	Total
Agriculture/Ornamental						0.25	0.67					0.55	0.56			2.03
Allscale Scrub																0.01
Arrow Weed Thickets					0.30	0.06	0.35									0.81
Bare Ground	0.05	0.08	0.56	0.04	0.26	0.74	0.16	0.30	0.03	0.66	0.22	0.06	0.32	0.26	0.17	5.63
Blue Palo Verde - Ironwood Woodland	0.51			0.25												3.04
Brittle Brush Scrub								0.86								0.86
Creosote Bush - Brittle Bush Scrub								0.06								0.06
Vegetation Community	**37-4**	**38-1**	**38-3**	**44-1**	**49-4**	**49-6**	**49-8**	**50-2**	**52-4**	**54-1**	**58-5**	**59-2**	**59-6**	**64-2**	**64-4**	**Total**
Creosote Bush Scrub	0.80	1.29	0.82	1.08				0.14	1.32	0.71	1.16		0.70			29.19
Disturbed													0.45	0.76	1.18	2.98

Disturbed Allscale Scrub												0.73				0.73
Iodine Bush Scrub					0.15											1.43
Mesquite Thickets																0.61
Open Water																0.18
Quailbush Scrub						0.31										0.31
Tamarisk Thickets					0.66		0.18									1.49
Total	**1.36**	**1.37**	**1.38**	**1.37**	**1.37**	**1.36**	**1.36**	**1.37**	**1.35**	**1.37**	**1.38**	**1.34**	**2.05**	**1.02**	**1.35**	**49.35**

General Plants

A total of 38 plant species were observed within the Survey Area during the biological reconnaissance survey (Attachment 2: Plant Species Observed). Plant species observed during the survey were representative of the existing Survey Area conditions. One special status plant species, Alverson's foxtail cactus (CRPR 4.3), was observed during the survey within pull sites 52-4 and 54-1.

A complete list of plant species observed or detected is provided in Attachment 2 – Species Observed/Detected List.

General Wildlife

A total of 28 wildlife species were observed within the Survey Area during the biological reconnaissance survey. Wildlife species observed or detected during the survey were characteristic of the existing Survey Area conditions. One California Species of Special Concern (SSC) species, vermilion flycatcher (*Pyrocepalus rubins*), was observed foraging near the Blythe Municipal Golf Course (near pull site 59-2). A CDFW Watch List (WL) species, brown-crested flycatcher (*Myiarchus tyrannulus*), was observed foraging in the Blue Polo Verde – Ironwood Woodland within the northern area of pull site 36-3. No state or federally listed species were observed.

A complete list of wildlife species observed or detected is provided in Attachment 3 – Wildlife Species Observed/Detected List.

Sensitive Species

Special Status Species

The following information is a list of abbreviations used to help determine special status biological resources potentially occurring in the Survey Area.

CNPS California Rare Plant Rank (CRPR)

1A	=	Plants presumed extinct in California.
1B	=	Plants rare and endangered in California and throughout their range.
2	=	Plants rare, threatened or endangered in California but more common elsewhere in their range.
3	=	Plants about which we need more information, a review list.
4	=	Plants of limited distribution; a watch list.

CRPR Extensions

0.1 = Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2 = Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3 = Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

FE = Federally listed; Endangered
FT = Federally listed; Threatened

State

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC = State Species of Special Concern
WL = CDFW Watch List
FP = CDFW Fully Protected

The following information was used to determine biological resources potentially occurring within the Survey Area. The criteria used to evaluate the potential for special status species to occur within the Survey Area are outlined in Table 3, below.

Table 3: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project site.
Low:	Historical records for this species do not exist within the vicinity (approximately 5 miles) of the Project site, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the vicinity of the Project site (approximately 5 miles) and marginal habitat exists on the Survey Area, or the habitat requirements or environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Project site.
High:	Both a historical record exists of the species within the Survey Area or its immediate vicinity (approximately 1 mile), and the habitat requirements and environmental conditions associated with the species occur within the Survey Area.
Present:	Species was detected within the Survey Area at the time of the survey.

*PFO: Potential for Occurrence

Special Status Plant Species

Database searches (CDFW 2022; CNPS 2022) resulted in a list of 12 special status plant species documented to historically occur within the vicinity of the Survey Area. One of the plants is State-listed as Endangered, but no others have federal status. Of the 12 plant species that resulted from the database search, it was determined that four are considered absent, two are considered to have a low potential to exist, and five are considered to have a moderate or higher potential to exist. One species, foxtail cactus with a CRPR of 4.3 is considered present. No other special status plant species were found during the biological reconnaissance survey.

The following four plant species are considered **Absent** from the Survey Area due to lack of suitable habitat within the Survey Area or the Survey Area is outside of the elevation requirements:

- California satintail (*Imperata brevifolia*) – CRPR 2B.1
- creamy blazing star (*Mentzelia tridentata*) – CRPR 1B.3
- dwarf germander (*Teucrium cubense* subsp. *depressum*) – CRPR 2B.2
- Hardwood's eriastrum (*Eriastrum harwoodii*) – CRPR 1B.2

The following two species has a Low potential to occur in the Survey Area, as the environmental conditions required by the species is of low quality. The following descriptions were sourced from CNPS Rare Plant Inventory (2022).

Emory's crucifixion-thorn (*Castela emoryi*) is a CRPR 2B.2 species. This species is a perennial deciduous shrub in the Simaroubaceae that occurs in Mojave Desert Scrub, Sonoran Desert Scrub, and playas. It can be found at elevations between 295 and 2,380 feet amsl. This species typically blooms between June and July but can be found in bloom as early as April depending on environmental conditions. Moderate quality Creosote Bush Scrub is present within the Survey Area, and this species has been recorded in one location within the northern terminus of the Project site near pull sites 12-9, 13-6, 14-3, and 14-6. However, the vegetation at these pull sites contain low quality Creosote Scrub habitat. Additionally, this occurrence was recorded in 1954 (CNDDB – on the west side of the Colorado River opposite Parker Arizona and needs fieldwork verification). This species was not observed during the survey effort; however, a focused special status plant survey was not conducted. Based on the poor quality of habitat in the area, the recorded date of this single location, and the amount of disturbance from development since 1954, it is unlikely this species is present in the area. Therefore, this species is considered to have a low potential to occur.

Sand evening-primrose (*Chylismia arenaria*) is a CRPR 2B.2 species. This species in an annual/perennial herb in the Onagraceae family that occurs in Sonoran Desert scrub. This species typically blooms between November and May. It can be found at elevations between 230 and 3,000 feet amsl. Moderate to high quality Creosote Bush Scrub is present within the Survey Area, and this species has been one location approximately 2.5 miles from the northern terminus of the Project site near pull sites 12-9, 13-6, 14-3, and 14-6. However, the vegetation at these pull sites contain low quality Creosote Scrub habitat. Additionally, this occurrence was recorded in 2003 (CNDDB – exact location unknown, needs fieldwork for verification). This species was not observed during the survey effort within the appropriate blooming period; however, a focused special status plant survey was not conducted. Based on the poor quality of habitat in the area, the recorded date of this single location and the amount of disturbance and development in this area, this species is considered to have a low potential to occur.

The following five plant species have a Moderate or higher potential to occur in the Survey Area, as the environmental conditions needed for the species exist. The following descriptions were sourced from the CNPS Rare Plant Inventory (CNPS 2022).

Angel trumpets (*Acleisanthes longiflora*) is a CRPR 2B.3 species. This species is a perennial herb in the Nyctaginaceae family that occurs in Sonoran Desert Scrub and Creosote Scrub. This species typically blooms in May. It can be found at elevations between 295 and 310 feet amsl. Moderate to high quality Creosote Bush Scrub is present within the Survey Area, and this species has been recorded (CNDDB in 2012) in one wash within the transmission line alignment near pole 51-1, approximately 1-mile south of the closest pull site 50-2. This species was not observed during the survey effort within the appropriate blooming period; however, a focused special status plant survey was not conducted.

Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*) is a CRPR 2B.2 species. This species is an annual herb in the Fabaceae family that occurs in desert dunes and Mojave Desert Scrub. This species typically blooms between January and May. It can be found at elevations between 0 to 2,330 feet amsl. Moderate to high quality Creosote Bush Scrub is present within the Survey Area, and this species has been recorded in many locations within 5 miles of the site, with two locations less than half a mile south of pull sites 64-2, and 64-4. However, the vegetation at these pull site locations do not contain suitable habitat for this species. Pull site 59-6 is the closest to this historic occurrence, approximately 5 miles to the north. Other locations are found north of the Blythe Airport, more than three miles west of the transmission alignment and more than 6 miles from the nearest pull site with suitable habitat. This species was not observed during the survey effort within the appropriate blooming period; however, a focused special status plant survey was not conducted.

Glandular ditaxis (*Ditaxis claryana*) is a CRPR 2B.2 species. This species is a perennial herb in the Euphorbiaceae family that occurs in sandy soils of Mojavean Desert Scrub, Sonoran Desert Scrub, and Creosote Bush Scrub. This species typically blooms from October to March. It can be found at elevations between 0 and 1,525 feet amsl. Moderate to high-quality Creosote Bush Scrub is present in the Survey Area. This species has been recorded within several locations within 3 miles of the site. The closest known location (CNDDB in 2013), approximately 500 feet south of pull site 29-3, near transmission pole 29-4. Other locations include west of the same area approximately 1.5 miles (CNDDB) and north of the alignment, approximately 3.3 miles away (CNDDB in 2003). This species was not observed during the survey effort; however, a focused special status plant survey was not conducted.

California ditaxis (*Ditaxis serrata* var. *californica*) is a CRPR 3.2 species. This species is a perennial herb in the Euphorbiaceae family that occurs in Sonoran Desert Scrub. This species typically blooms between March and December. It can be found at elevations between 100 and 3,280 feet amsl. Moderate to high quality Creosote Bush Scrub is present within the Survey Area. This species has been recorded in one location (CNDDB in 2013) approximately 500 feet south of pull site 29-3, near transmission pole 29-4. This species was not observed during the survey effort; however, a focused special status plant survey was not conducted.

Abrams' spurge (*Euphorbia abramsiana*) is a State endangered, CRPR 2B.2 species. This species is a prostrate annual herb in the Euphorbiaceae family that occurs in sandy flats of Mojavean Desert Scrub and Sonoran Desert Scrub. This species blooms from September to November. It can be found at elevations between -15 and 4,300 feet amsl. Moderate to high-quality Creosote Bush Scrub is present, and this species has been recorded within several locations (CNDDB in 2012) between 2 and 5 miles south and west of the Project site (south of the McCoy Mountains, and southwest of Blythe Airport). This species was not observed during the survey effort; however, a focused special status plant survey was not conducted.

One special status plant species is considered **Present** and the locations present within the Survey Area have been mapped (Attachment 1: Figure 10).

Alverson's foxtail cactus (*Coryphantha alversonii*), is a CRPR 4.3 species. This species is a perennial stem succulent is in the Cactaceae family that occurs in Mojavean Desert Scrub and Sonoran Desert Scrub usually on granitic substrate, but sometimes on rocky or sandy soils as well. It blooms between April and June, sometimes extending the blooming period into September or October. It occurs at elevations between 245 and 5,005 feet amsl (CNPS 2022). Alverson's foxtail cactus is not afforded special protection under CEQA as it is only on a Watch List with less than 20 percent of occurrences threatened in California (CDFW 2022), but individuals present within the Survey Area (Figure 10) should be avoided or translocated if possible. Alverson's foxtail cactus was observed during the survey effort at the following pull sites: one location within 52-4 (southern area) and many locations within 54-1.

Special Status Wildlife Species

Database searches (CDFW 2022; USFWS 2022b) resulted in a list of 22 federally and/or state listed endangered or threatened, State Species of Concern, or otherwise special status wildlife species documented to occur within the Survey Area. After a literature review and the assessment of the various habitat types within the Survey Area, it was determined that 11 special status wildlife species are considered absent, four have a low potential to occur, five have a moderate or higher potential to occur, and two species are considered present within the Survey Area.

The majority of pull sites are located in areas that do not contain riparian or wetland habitats associated with the Colorado River. Vegetation communities for all pull sites are found in Attachment 1: Figure 4 – Vegetation Communities. There are several pull sites that contain riparian habitats including pull sites 14-3, 31-3, 49-4, 49-6, and 49-8. These pull sites are described in the Delineation Results of this report. Impacts to riparian and/or wetland vegetation are not anticipated.

The following eleven wildlife species are considered **Absent** from the Survey Area due to the absence of suitable habitat required to support these species:

- cave myotis (*Myotis velifer*) – SSC
- elf owl (*Micrathene whitneyi*) – **SE**
- gilded flicker (*Colaptes chrysoides*) – **SE**
- mountain plover (*Charadrius montanus*) – SSC
- razorback (*Xyrauchen texanus*) – **FE**, **SE**
- Sonoran yellow warbler (*Setophaga petechia sonorana*) – SSC
- southwestern willow flycatcher (*Empidonax traillii extimus*) – **FE**, **SE**
- summer tanager (*Piranga rubra*) – SSC
- Yuma ridgeway's rail (*Rallus obsoletus yumanensis*) – **FE**, **ST**
- Arizona myotis (*Myotis occultus*) – SSC
- California leaf-nosed bat (*Macrotus californicus*) – SSC

The following four sensitive wildlife species have a Low potential for occurrence in the Survey Area due to low quality and disturbed suitable habitat.

The American badger (*Taxidea taxus*) is a California Species of Special Concern. This carnivorous species ranges over most of the western United States and upper midwestern United States south into central Mexico. In California, the badger may occupy a variety of habitats, especially grasslands, savannas, sandy soils, and deserts. It prefers friable soils for burrowing and relatively open, uncultivated ground. Prey items include pocket gophers and ground squirrels (Jameson and Peeters 1988). The American badger may weigh up to 11.4 kilograms or 25 pounds and is easily recognized by its overall silver-gray coloration, white stripe on top of its head, white cheeks, and black feet with noticeably long front claws. It is a heavy-bodied animal that is stout and flattened. The American badger is chiefly nocturnal, but it is often seen by day as well. It gives birth to one to four young from March to April (Jameson and Peeters 1988). Threats to this species include habitat loss due to agriculture, housing and other land conversions, and illegal hunting. Suitable habitat for this species is present throughout the Survey Area; however, this species was recorded in one location approximately 3 miles from the site in 1935 near Vidal. Considering the volume of development in the area since 1935 and no other recorded occurrences within 5 miles of the Survey Area, the potential for occurrence is Low.

The Colorado River cotton rat (*Sigmodon arizonae plenus*) is an SSC. This species is found in Arizona (La Paz County) and California (Imperial, Riverside, and San Bernardino Counties; Natureserve 2011). The Colorado River cotton rat is a subspecies of the Arizona Cotton Rat (*Sigmodon arizonae*) and occurs near rivers, streams, and other sources of fresh water in semidesert, open grassland, or swampy habitats, preferring area of dense grassy vegetation (Linzey, et al., 2012). This species has been recorded within one mile of the Survey Area; however, the Survey Area contains low quality habitat (dense grassy vegetation) for this species and lacks fresh water and/or moist environments required for this species. Therefore, this species has a low potential to occur at the following pull sites: 14-3, 49-4, and 49-8.

The desert tortoise (*Gopherus agassizii*) is a federally and state listed threatened species. The desert tortoise ranges from central Nevada and extreme southwestern Utah south through southeastern California and southwestern Arizona into northern Mexico (Berry et al. 2002). In California, the historic range of this species includes northeastern Los Angeles, eastern Kern, eastern San Diego, and southeastern Inyo counties as well as most of San Bernardino, Riverside, and Imperial counties. This species inhabits river washes, rocky hillsides, slopes, and flat deserts with sandy or gravelly soils. Soil conditions must be friable for burrow and nest construction. Creosote bush, white bursage, saltbush, Joshua tree, Mojave yucca, and cacti are often present in the habitat along with other shrubs, grasses, and wildflowers. This species has been recorded within 3.2 miles of the Project site, approximately 7 miles WSW of Blythe in the Palo Verde Mesa; however, the Survey Area contains lower quality creosote scrub, resulting in low quality habitat for this species. Therefore, this species has a low potential to occur at the following pull sites: 22-4, 25-1, 25-4, 28-2, 54-1, 58-5, and 59-6.

Townsend's big-eared bat (*Corynorhinus townsendii*) is a California Species of Concern. This species is found in all habitat types except alpine and subalpine, but it is rare in California and throughout most of its range. Roosts occur in caves, buildings, tunnels, mines, and other human-made structures (CDFW 1995). This species hibernates singly or in groups from October to April and undergoes short migrations to hibernation roosts. Females form maternity colonies, but males are solitary in the spring and summer. This species has high site fidelity, but it is extremely sensitive to disturbance of roosting sites. One visit to a roosting site can cause abandonment. This species has been recorded within one mile west of pull site 29-3, at Mountaineer Mine (CNDDB in 2003). However, no potential roosting sites occur within the Survey Area (man-made structures); therefore, this species has a Low potential to occur (foraging).

The following five wildlife species have a Moderate or higher potential to occur in the Survey Area, as the environmental conditions needed for the species exist.

The burrowing owl (*Athene cunicularia*) is a California Species of Special Concern. It is broadly distributed across the western United States, with populations in Florida and Central and South America. The burrowing owl breeds in open plains from western Canada and the western United States, Mexico through Central America and into South America to Argentina (Klute 2003). This species inhabits dry, open, native or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich 1988). It may occupy golf courses, cemeteries, road rights-of way, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). Burrowing owls typically use burrows made by mammals such as California ground squirrels (*Spermophilus beecheyi*), foxes, or badgers (Trulio 1997). When burrows are scarce, the burrowing owl may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). Burrowing owls often are found within, under, or in close proximity to man-made structures. Prey sources for this species include small rodents; arthropods such as spiders, crickets, centipedes, and grasshoppers; smaller birds; amphibians; reptiles; and carrion. Threats to the burrowing owl include loss of nesting burrows, habitat loss, and mortality from motor vehicles. This species has been documented within many locations (CNDDB in 2007) with 12 documented occurrences within 2 miles of the Project, especially within the southern agricultural areas from pull site 49-5 and south. Suitable nesting and foraging habitat exist within the majority of the pull sites; therefore, this species potential for occurrence is High.

The crissal thrasher (*Toxostoma crissale*) is a California Species of Concern. It is widely distributed from southeastern California and southwestern Utah to Central America, inhabiting desert washes and riparian thickets in the Colorado River and Rio Grande valleys and their tributaries in southwestern North America. To the south and southeast within its range it can be found on brushy plains, in foothill scrub, or in open piñon-oak-juniper woodlands where there is a shrubby understory. The crissal thrasher is mostly insectivorous but may eat seeds, fruits, and berries (e.g., juniper berries) outside the summer season. It is a relatively large, grayish-brown songbird with a long, graduated tail and a rusty colored crissal (the area surrounding the cloacal opening). It has a long, decurved bill. Loss of habitat to clearing for agriculture or urban and suburban development threatens some populations. Other possible factors affecting this species include grazing of arid lands and off-road vehicle use (Cody 1999). Suitable nesting and foraging habitat for this species is present throughout the desert washes that cross through the Survey Area; therefore, the potential for occurrence is Moderate.

Gila woodpecker (*Melanerpes uropygialis*) is a State-listed Endangered species. It is a permanent resident of the lower Colorado River and Imperial Valley of southeastern California, throughout central Arizona and southwestern New Mexico, and south into northeastern Mexico. Physical characteristics include a tan to brown head and underparts, yellow-tinged belly, and black and white bar patterns on the back. The Gila woodpecker inhabits dry subtropical forests, riparian woodlands, and deserts with large cacti or tree species suitable for nesting. Habitats include saguaro desert, desert washes, riparian woodlands, and residential areas, including orchards and vineyards (Bancroft 1929; Price et al. 1995). Near Brawley, California, it is found primarily in date palm groves and ranch yards (Garrett and Dunn 1981). It is omnivorous; and its diet may include insect larvae, insects, cactus fruits, and berries. The disappearance of this species from much of Imperial Valley during the latter half of the twentieth century may have been connected to the clearing of riparian woodlands and to nest-site competition with European starlings (*Sturnus vulgaris*; Edwards and Schnell 2000; Bancroft 1929; Price et al. 1995). This species has been observed in several locations within three miles of the Project; however, the most recent was in 1986 (CNDDB). Suitable habitat for this species is present throughout the desert

washes within the Survey Area, especially near pull sites 28-2, 29-3, 31-1, 36-3, 37-4, 44-1, 49-4, and 49-8. Therefore, the potential for occurrence is Moderate.

The pallid bat (*Antrozous pallidus*) is listed as a California Species of Concern. Its range extends from southern British Columbia along the Pacific coast south to central Mexico and east to central Kansas and Oklahoma. In California it is found throughout the state except for the high Sierra Nevada from Shasta to Kern Counties, and the northwest corner of the state from Del Norte and western Siskiyou Counties to northern Mendocino County. It occurs in a variety of habitats, including arid desert scrub, oak woodlands, juniper woodlands, grasslands, coniferous forests, and water-associated habitats (CDFW 1990). It may be more common throughout its range where rocky outcrops provide roost sites. This species is known to form day roosts of 12-100 individuals. Roosts may be natural or artificial, and often times, alternate night roosts are used as social centers. Unlike most other bat species, the pallid bat takes few insects on the wing. It forages by looking for prey on the ground and actually listening for the footsteps of ground-dwelling insects, scorpions, crickets, grasshoppers, spiders, centipedes and other prey. The pallid bat has been recorded within several locations, within two miles of the Survey Area (CNDDB 1992, 2015) west of pull site 29-3 in the Riverside Mountains. Therefore, the potential for occurrence is Moderate.

The western yellow bat (*Lasiurus xanthinus*) is a California species of special concern. It is found in localized populations throughout the desert regions of Los Angeles and San Bernardino Counties, and the southwestern United States to southern Mexico. It is an obligate foliage roosting species that prefers dead palm fronds to other types of tree substrates. It is possible that the western yellow bat may be finding roosts in fan palms planted for ornamental landscaping. The western yellow bat is primarily non-colonial, but small colonies have been documented in some areas. Unlike many other bats found in this region, it appears that this species is found throughout the year in southern California. It is most commonly associated with palm oases but can also occur in valley foothill riparian, desert riparian, and desert wash areas (CDFW 2008). This species has been recorded in two locations within three miles of the Project (CNDDB 1980, 2015) in the southern portion of the Survey Area (pull site 49-4 and south). Suitable habitat for this species occurs within the desert washes and the ornamental vegetation; therefore, this species has a Moderate potential to occur within the Survey Area.

The following two sensitive wildlife species were detected during survey efforts and are therefore considered Present in the Survey Area. For locations, see Attachment 1: Figure 10 – Sensitive Species Results Map.

The vermilion flycatcher (*Pyrocephalus rubinus*) is a California Species of Concern. It is a widespread tropical species whose range barely extends northward into the southwestern United States, where it breeds locally northward to southeastern California and southern Nevada. It may be found in wet oases in desert and semi-arid habitats and in diverse mixes of trees, brush, and grassy openings near open water. The male vermilion flycatcher has brilliant red underparts and a crown that contrast with the rest of its blackish coloration. Nests are open-cup and are usually 8-20 ft. above the ground in a horizontal fork of a large tree (Bent, 1942). Although the advent of various man-made habitat oases, such as parks, golf courses, and suburbs, in areas formerly supporting desert scrub have provided potential flycatcher nesting locations in the Mojave Desert of California, these areas also provide excellent foraging habitat for the brown-headed cowbird (*Molothrus ater*), a brood parasite known to use this flycatcher as a host (Hanna, 1936). This species was observed during the reconnaissance survey foraging in an ornamental tree near pull site 59-2 at the Blythe Golf Course and is considered present within the Survey Area.

The brown-crested flycatcher (*Myiarchus tyrannulus*; nesting) is a California Species of Concern and ranges from the southwestern U.S. to Argentina. In California, the brown-crested flycatcher of the northwestern-most subspecies (*M.t.*

magister) nests along the Colorado River and at a few scattered localities throughout the deserts. During migration, this species is rarely observed in California away from known breeding areas (Garrett and Dunn 1981). This species typically inhabits riparian woodlands, sycamore woodlands, and saguaro deserts. This species was observed foraging at pull site 36-3 within the Blue Palo Verde – Ironwood Woodland near the northern boundary during the reconnaissance survey and is considered present with the Survey Area.

United States Fish Wildlife Service Critical Habitat

Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated Critical Habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Designated Critical Habitat delineates all suitable habitat, occupied or not, that is essential to the survival and recovery of the species. According to the USFWS Critical Habitat WebGIS map, the Project site does not fall within any designated Critical Habitat (USFWSb 2022). Critical Habitat for the desert tortoise is present within 3 miles of the Project site to the northwest, and Critical Habitat for the razorback is present within 1 mile of the Project site within the Colorado River that flows adjacent to the site as depicted in (Attachment 1: Figure 3 – USFWS Critical Habitat Map).

Delineation Results

The Survey Area contains primarily alluvial fan systems consisting of braided channels, individual drainage channels, erosional channels, and man-made berms. Drainages found within the Survey Area are potentially subject to jurisdiction by the USACE, CDFW, and RWQCB. The active channels throughout the Survey Area consisted of alluvial sediment comprised of sand and gravel deposits. The active channels and drainages mapped exhibited clear evidence of hydrology including sediment deposition, shelving, drift deposits, and destruction of vegetation. These characteristics were used to inventory the active channels and drainages during the surveys.

The widths of the Ordinary High Water Mark (OHWM) and bank features were similar due to the erosion of banks in a vertical formation; therefore, the OHWM measurements were measured as the same width as the banks throughout the Survey Area.

The USFWS NWI and Jurisdictional Delineation Results are found in Figure 8. The Impacts to Jurisdictional Waters are found in Figure 9. Mapped vegetation communities are found in Figure 4.

The Colorado River is the main waterway adjacent to the Project and is a Traditional Navigable Waters (TNW). One Colorado River crossing is located between pull sites 14-3 and 14-6. The Colorado River is listed as the wetland type Lake and the banks of the Colorado River are listed as Freshwater Forested/Shrub Wetland by the USFWS NWI. Based on the results of the survey, the vegetation within pull site 14-3 includes Mesquite Thickets and Arrow Weed Thickets. The Main Canal is also located within the eastern pull site 14-3 and is unvegetated. No work is proposed within the Colorado River or Main Canal.

The majority of pull sites are located in areas that do not contain riparian or wetland habitats associated with the Colorado River. There are a few pull sites that contain riparian and/or wetland habitats including pull sites 14-3, 16-7, 31-3, 49-4, 49-6, and 49-8. These pull sites are described below:

- Pull site 14-3 is located on the east side of the Colorado River (transmission line crosses Colorado River from this location). The majority of pull site 14-3 contains bare ground and Creosote Scrub and only a portion of the site contains riparian habitat including Mesquite Thickets, Arrow Weed Thickets, and Open Water (largely unvegetated Main Canal). The pull site is located at the edge of the community of Parker, Arizona and is surrounded to the south and east by residential and commercial development and to the north and west by

the Colorado River. This area is highly disturbed and pull site operations can be contained within the Bare Ground and Creosote Scrub areas.

- Pull site 16-7 is located approximately 1,770 feet north of the Colorado River, north of the residential community along Rio Vista Drive. This pull site contains Tamarisk Thickets, Disturbed habitat, Bare Ground, and a small area of Allscale Scrub. A NWI Freshwater Forested/Shrub Wetland exists in the southern areas of the pull sites, and the delineation has extended the wetland area (Tamarisk Thickets) in two small areas. This area is highly disturbed, and residential development has altered the community, becoming more arid. This area receives flow from ephemeral washes and drainages from the north. Pull site operations can be contained within the Bare Ground and Disturbed habitat areas.
- Pull site 31-3 is located approximately 4,580 feet west of the Colorado River and west of Lost Lake Resort, west of Interstate 95. The majority of pull site 31-3 contains Creosote Scrub and sparse Blue Palo Verde – Ironwood Woodland with a small patch of Tamarisk thickets and sparse area of Mesquite Thickets that can be avoided.
- Pull site 49-4 is located approximately 4,200 feet west of the Colorado River, immediately east and adjacent to Interstate 95. Approximately 50 percent of this site contains Tamarisk Thickets and Arrow Weed Thickets; however, agriculture development in this area has separated the Colorado River from this riparian/wetland habitat. Water is currently received from ephemeral drainages from the west and vegetation in this area has become more arid and is not suitable for sensitive species that require wet/moist, riparian habitats. In addition, pull site operations can be contained within the access road and adjacent bare ground areas within the proposed pull sites. Therefore, impact to riparian habitat is not anticipated.
- Pull site 49-6 is located approximately 3,400 feet west of the Colorado River, immediately east and adjacent to Interstate 95. This area is highly disturbed. The majority of pull site 49-6 contains bare ground and agriculture. Small areas of scattered Quail Bush Scrub and Arrow Weed Thickets exist; however, agriculture development in this area has separated the Colorado River from riparian/wetland habitat associated with the banks of the Colorado River. Although Quailbush Scrub is not considered a wetland community, the NWI database identified the area at Pull Site 49-6 as a Freshwater Forested/Shrub Wetland. Field verification identified intermixed Arrow Weed Thickets; therefore, the general area was confirmed as a wetland community surrounded by human disturbance. Water is currently received from ephemeral drainages from the west and vegetation in this area has transitioned into an arid environment and is not suitable for sensitive species that require wet/moist, riparian habitats. Pull site operations can likely avoid these riparian habitats.
- Pull site 49-8 is located approximately 3,400 feet west of the Colorado River, immediately east and adjacent to Interstate 95. This area is highly disturbed. The majority of pull site 49-8 contains agriculture and bare ground. Two areas of scattered Tamarisk Thickets and Arrow Weed Thickets exist; however, agriculture development in this area has separated the Colorado River from this riparian/wetland habitat. Water is currently received from ephemeral drainages from the west and vegetation in this area has become more arid and is not suitable for sensitive species that require wet/moist, riparian habitats. In addition, pull site operations can be contained within the access road and adjacent bare ground areas within the proposed pull sites. Therefore, impact to riparian habitat is not anticipated.

The following pull sites contain ephemeral drainages and/or ephemeral braided channels:

- Pull site 13-6 has two small drainages located within Blue Palo Verde – Ironwood Woodland. No NWI drainage exists in this area; however, these drainages connect to a NWI Freshwater Forested/Shrub Wetland that exists to the southeast. These drainages can be avoided by keeping work activities within Bare Ground or open space areas within Creosote Scrub habitat. Impacts to the drainages are not anticipated.

- Pull site 22-4 has a NWI Riverine drainage along the eastern boundary of the site. No drainage was identified in this area during the survey effort.
- Pull site 25-1 (Staging Area) has a NWI Riverine drainage through the lower portion of the site. No drainage was identified in this NWI area during the survey effort. However, a drainage was identified along the northwestern portion of the site that connects to a large, NWI braided channel immediately north of the site. This area can be avoided during lay down operations. The staging area is comprised mainly of sparse Creosote Scrub, with small portions of Blue Palo Verde – Ironwood Woodland and Mesquite Thickets along the northern area that can be avoided.
- Pull site 25-4 (Staging Area) has a small ephemeral drainage that goes subsurface through the site (no longer exhibits surface flow characteristics). No NWI is present at this location (one NWI drainage is located to the north of the site). This area can be avoided during the pull site operations. The staging area is comprised mainly of sparse Creosote Scrub and one small patch of Blue Palo Verde – Ironwood Woodland that can be avoided.
- Pull sites 28-2 and 29-3 do not contain NWI drainages, or field mapped drainage. Several small erosional features (non-jurisdictional) were mapped through the pull sites. A man-made berm designed to direct flow away from the Interstate 95 and through a culvert was identified and can be avoided during pull site operations.
- Pull site 31-3 has several NWI drainages (braided channels) that contain Mesquite Thickets, Tamarisk Thickets, and Blue Palo Verde – Ironwood Woodland, surrounded by Creosote Scrub and Bare Ground. The drainages can be avoided during pull site operations.
- Pull sites 32-6, 38-1, 38-3, 50-2, 52-4, 54-1, and 58-5 do not have NWI drainages present. Field verification identified several erosional features within these pull sites, and no drainages present within the pull sites.
- Pull site 33-5 does not have a NWI drainage present. However, a small drainage within Creosote Scrub was identified within the southwestern corner of the southern pull site. Erosional features (non-jurisdictional) were also present. Pull site operations can be contained within the Bare Ground and within the Creosote Scrub habitats (sparse vegetation). The drainage can be avoided during pull site operations.
- Pull site 36-3 does not have a NWI drainage present; however, a braided channel within Blue Palo Verde – Ironwood Woodland was identified during field surveys. Several erosional features (non-jurisdictional) were also identified. The drainage can be avoided during pull site operations.
- Pull site 44-1 has a NWI drainage present. Field verification identified a large, braided wash system within Blue Palo Verde – Ironwood Woodland habitat. Pull site operations can be contained within the sparse areas of Creosote Scrub and Bare Ground areas. The drainage can be avoided during pull site operations.
- Pull site 64-2 contains NWI lake (open water) within portions of the pull site. The pull site is located within agricultural development. Field verification did not identify a ponded area, this area has been manipulated by the land owner and is no longer present (currently it is Disturbed habitat).
- Pull site 64-4 has a NWI drainage present; however, field verification did not identify a drainage. The pull sites are within agricultural development, this area has been manipulated and the drainage is no longer present (Disturbed habitat).
- No water features exist within the following pull sites: 12-9, 14-6, 22-4, 31-4, 37-4, 59-2, and 59-6.

Conclusions and Recommendations

This Project proposes to install approximately 52 miles of new 48-strand overhead fiber optic grounding wire on the existing Headgate Rock-Blythe 161-kilovolt (kV) transmission line and temporary access to 31 pull sites along the west end of the Colorado River Reservation, San Bernardino and Riverside counties. All work and access (other than pull sites) are contained within the existing road prism and do not require an environmental assessment for sensitive resources. No new poles or permanent structures are proposed. No ground disturbance other than the crushing of vegetation is proposed. Impacts associated with this Project are considered temporary. Work areas will be modified to avoid and/or minimize impacts to known sensitive resources; work areas are expected to be smaller than provided in this analysis.

Delineation

The Survey Area contains primarily alluvial fan systems consisting of braided channels, individual drainage channels, erosional channels, and man-made berms. Drainages found within the Survey Area are potentially subject to jurisdiction by the USACE, CDFW, and RWQCB. Due to topography of the drainages and the vertical erosion of the banks, bank to bank and OHWM measurements were recorded as the same widths. Impact calculations are based on larger temporary work areas (pull sites and staging areas) that will be refined through Project design finalization to minimize actual impacts. Although impacts to drainage features are not anticipated, impact calculations are based on the entire temporary work areas provided in this report. Currently proposed impacts to drainages and vegetation within the drainages are provided below.

Table 4. Drainage Temporary Impacts (acres) Within Pull Sites

Temporary Impact Type - Vegetation Community	13-6	14-3	16-7	25-1	25-4	31-3	33-5
Ephemeral Drainages							
Blue Palo Verde - Ironwood Woodland	0.07338					0.29442	
Creosote Bush Scrub	0.00001			0.01207	0.02621	0.00705	0.00261
Mesquite Thickets						0.05135	
Tamarisk Thickets						0.00533	
Open Water							
Open Water		0.17847					
Wetland Areas							
Arrow Weed Thickets		0.09306					
Iodine Bush Scrub							
Mesquite Thickets		0.25837					
Quail Bush Scrub							
Tamarisk Thickets			0.59656				
Total	**0.07**	**0.53**	**0.60**	**0.01**	**0.03**	**0.36**	**0.00**

Temporary Impact Type - Vegetation Community	36-3	44-1	49-4	49-6	49-8	Total
Ephemeral Drainages						
Blue Palo Verde - Ironwood Woodland	0.07413	0.18913				0.63
Creosote Bush Scrub	0.00063	0.00229				0.05
Mesquite Thickets						0.05
Tamarisk Thickets						0.01
Open Water						
Open Water						0.18
Wetland Areas						
Arrow Weed Thickets			0.30211	0.05876	0.35365	0.81
Iodine Bush Scrub			0.14733			0.15
Mesquite Thickets						0.26
Quailbush Scrub				0.30787		0.31
Tamarisk Thickets			0.66127		0.17591	1.43
Total	**0.07**	**0.19**	**1.11**	**0.37**	**0.53**	**3.87**

An estimated total of 3.87 acres of proposed temporary impacts to water features under USACE, RWQCB, and CDFW is proposed based on the current Project design.

Temporary impacts to ephemeral drainages and associated native vegetation include: 0.63 acre Blue Palo Verde – Ironwood Woodland, 0.05 acre Creosote Bush Scrub, and 0.05 acre Mesquite Thickets for a total of 0.73 acre of temporary impact. Temporary impacts to ephemeral drainage and associated non-native vegetation include 0.01 acre of Tamarisk Thickets.

Temporary impacts to wetlands and associated native vegetation include 0.81 acre Arrow Weed Thickets, 0.15 acre Iodine Bush Scrub, 0.26 acre Mesquite Thickets, 0.31 acre Quailbush Scrub for a total of 1.52 acres of temporary impact. Temporary impacts to wetlands and associated non-native vegetation include 1.43 acres of Tamarisk Thickets. A total of 0.18 acre of temporary impact is estimated for Open Water (Main Canal).

Although impacts to drainage features are not anticipated, temporary impact calculations are based on the entire temporary work areas provided in this report. If Project activities could potentially impact any of these features, applications for a USACE 404 permit, State 401 certification, and/or CDFW State Streambed Alteration Agreement may be required for Project authorization.

Several ephemeral drainages occur throughout the Survey Area and cross through the existing access roads throughout the transmission line corridor. Repairs to the existing access roads are anticipated to occur as a part of Project activities; however, all repairs will occur within the existing road prism, and no new permanent disturbance would result from this activity. Therefore, no impacts to jurisdictional features are anticipated to occur as a result of access road repair activities. If any required improvements associated with access road repair activities could potentially impact waters outside the existing access road prism, a Jurisdictional Delineation must be conducted along the access road to determine agency jurisdiction, and applications for a USACE 404 permit, State 401 certification, or CDFW State Streambed Alteration Agreement may be required for Project authorization.

Vegetation

Fifteen vegetation communities for a total of 49.35 acres were documented within the Survey Area. A total of 37.23 native vegetation including Allscale Scrub, Distrubed Allscale Scrub, Arrow Weed Thickets, Blue Palo Verde-Ironwood Woodland, Brittlebush Scrub, Creosote Scrub, Creosote Scrub – Brittlebush Scrub, Iodine Bush Scrub, Mesquite Thickets, and Quailbush Scrub, and 12.13 acres non-native or other vegetation including Agriculture/Ornamental, Bare Ground, Disturbed, and Tamarisk Thickets may be impacted.

Temporary impacts to native and non-native vegetation are anticipated. Impact calculations are based on larger temporary work areas (pull sites and staging areas) that will be refined through project design finalization to minimize actual impacts. Impacts to vegetation are based on the entire temporary work areas provided in this report; actual impacts are anticipated to be much less. Temporary impacts may include trimming or crushing of vegetation; however, no vegetation removal is proposed for this Project. Additional temporary impacts may include construction-related dust could reduce the rates of photosynthesis and hinder growth.

See avoidance and minimization measure to avoid or reduce impacts to native vegetation.

Special Status Plant Species

Following the literature review and after the assessment of the various habitat types in the Survey Area, it was determined that 12 special status plant species were documented to historically occur within the vicinity of the Survey Area. One of the plants is State-listed as Endangered, but no others have federal status. Of the 12 plant species that resulted from the database search, it was determined that four are considered absent, two are considered to have a low potential to exist, and five are considered to have a moderate or higher potential to exist. One species, foxtail cactus with a CRPR of 4.3 is considered present. No other special status plant species were found during the biological reconnaissance survey. The following species are considered to have a moderate or higher potential to occur within the Survey Area.

- Angel trumpets is a CRPR 2B.3 species that typically blooms in May. This species has been recorded in one wash within the transmission line alignment in 2012 (CNDDB) near pole 51-1, approximately 1-mile south of the closest pull site 50-2.
- Harwood's milk-vetch is a CRPR 2B.2 species that typically blooms between January and May. This species has been recorded in many locations within 5 miles of the site, with two locations (CNDDB) less than half a mile south of pull sites 64-2, and 64-4. However, the vegetation at these pull site locations do not contain suitable habitat for this species. Pull site 59-6 is the closest to this historic occurrence.
- Glandular ditaxis is a CRPR 2B.2 species typically blooms from October to March. This species has been recorded within several locations in 2013 (CNDDB) within 3 miles of the site. The closest known location is approximately 500 feet south of pull site 29-3, near transmission pole 29-4.
- California ditaxis is a CRPR 3.2 species typically blooms between March and December. This species has been recorded in one location in 2013 (CNDDB) approximately 500 feet south of pull site 29-3, near transmission pole 29-4.
- Abrams' spurge is a State endangered, CRPR 2B.2 species that typically blooms from September to November. This species was recorded in 2012(CNDDB) between 2 and 5 miles south and west of the Project site (south of the McCoy Mountains, and southwest of Blythe Airport).

One special status plant species is considered **Present** and the locations present within the Survey Area have been mapped (Attachment 1: Figure 10).

Alverson's foxtail cactus is a CRPR 4.3 species that typically blooms between April and June. Alverson's foxtail cactus is not afforded special protection under CEQA as it is only on a State Watch List species but individuals present within the Survey Area (Figure 10) should be avoided or translocated if possible. Alverson's foxtail cactus was observed during the survey effort at the following pull sites: one location within 52-4 (southern area) and many locations within 54-1.

See avoidance and minimization measures to avoid or reduce impacts to special status plant species.

Special Status Wildlife Species

Following the literature review and after the assessment of the various habitat types in the Survey Area, it was determined that 22 federally and/or state listed endangered or threatened, State Species of Concern, or otherwise special status wildlife species documented to occur within the Survey Area. After a literature review and the assessment of the various habitat types within the Survey Area, it was determined that 11 special status wildlife species are considered absent, four have a low potential to occur, five have a moderate or higher potential to occur, and two species are considered present within the Survey Area. One species is a State-listed Endangered species, but no other species with a potential to occur have federal status.

The following five wildlife species have a Moderate or higher potential to occur in the Survey Area:

The burrowing owl is a California Species of Special Concern. This species has been documented within many locations (CNDDB in 2007) with 12 documented occurrences within 2 miles of the Project, especially within the southern agricultural areas from pull site 49-5 and south. Suitable nesting and foraging habitat exist within the majority of the pull sites.

The crissal thrasher is a California Species of Concern. Suitable nesting and foraging habitat for this species is present throughout the desert washes that cross through the Survey Area.

Gila woodpecker is a State-listed Endangered species. Suitable habitat for this species is present throughout the desert washes within the Survey Area, especially near pull sites 28-2, 29-3, 31-1, 36-3, 37-4, 44-1, 49-4, and 49-8.

The pallid bat is listed as a California Species of Concern. The pallid bat has been recorded within several locations, within two miles of the Survey Area (CNDDB in 1992, 2015) west of pull site 29-3 in the Riverside Mountains.

The western yellow bat is a California species of special concern. This species has been recorded in two locations within three miles of the Project (CNDDB in 1980, 2015) in the southern portion of the Survey Area (pull site 49-4 and south). Suitable habitat for this species occurs within the desert washes and the ornamental vegetation.

The following two sensitive wildlife species were detected during survey efforts and are therefore considered Present in the Survey Area. For locations, see Attachment 1: Figure 10 – Sensitive Species Results Map.

The vermilion flycatcher is a California Species of Concern. This species was observed during the reconnaissance survey foraging in an ornamental tree near pull site 59-2 at the Blythe Golf Course and is considered present within the Survey Area.

The brown-crested flycatcher is a California Species of Concern. This species typically inhabits riparian woodlands, sycamore woodlands, and saguaro deserts. This species was observed foraging at pull site 36-3 within the Blue Palo

Verde – Ironwood Woodland near the northern boundary during the reconnaissance survey and is considered present with the Survey Area.

Avoidance and Minimization Measures

1. **Preconstruction Surveys**. Preconstruction surveys shall be conducted by biologists according to standardized methods. Surveys shall encompass all construction areas. Existing baseline vegetation data shall be used during post-construction restoration efforts, as needed. Preconstruction surveys shall take place for each discrete work area within 14 days of the start of construction activities, or if work has lapsed for longer than 14 days. The biologist shall conduct preconstruction clearance sweeps for special status plant and wildlife species with a moderate or higher potential for occurrence where suitable habitat is present.

   In addition to these preconstruction surveys, a biologist shall conduct protocol-level surveys for the following plant species during the appropriate blooming period when these species would be conspicuous: Angel trumpets (May), Hardwood's milk-vetch (January – May), Glandular ditaxis (October – March), California ditaxis (March – December), and Abram's spurge (September – November). Any special status species identified shall be flagged for avoidance. If surveys for these species are not feasible during the blooming period, a qualified botanist shall conduct a preconstruction search for remnants of these species and flag for avoidance. A botanist shall flag the documented locations of Alverson's foxtail cactus within pull sites 52-4 and 54-1 for avoidance.

   In addition, the biologists shall conduct preconstruction surveys for the following sensitive wildlife species: burrowing owl, crissal thrasher, Gila woodpecker, pallid bat, western yellow bat, vermilion flycatcher and brown-crested flycatcher in suitable habitat.

   Should biologists identify sensitive species at any time prior to or during construction, biologists shall flag an appropriate avoidance buffer that sufficiently protects the species from disturbance caused by construction activities, as determined by a qualified biologist. The location should be monitored regularly, and the buffer must remain in place until construction is complete, or the species has vacated the area. If a special status species is found at any time, WAPA shall be notified within 48 hours, and WAPA shall determine the need for additional consultation with the appropriate resource agency or agencies.

2. **Preconstruction Surveys for Burrowing Owls**. Prior to ground disturbance, an avian biologist shall conduct preconstruction take-avoidance surveys for burrowing owls within 150 meters of Project areas in suitable habitat no more than 14 days prior to ground-disturbing activities according to methods outlined in the CDFW's 2012 (or most recent) Staff Report on Burrowing Owl Mitigation (CDFG 2012). Surveys will provide data on whether burrowing owls occupy the area and, if so, whether the owls are actively nesting.

   a) **Burrowing Owl Impact Avoidance**. If pre-construction take-avoidance surveys detect the presence of any active burrowing owl burrows during breeding season, the burrows will be avoided, and construction activities within 150 meters will be enclosed by construction fencing. Buffer sizes are outlined in the CDFW's Staff Report on Burrowing Owl Mitigation. Active burrowing owl burrows should be monitored regularly according to methods outlined in the Nesting Bird Management Plan, and buffers should remain in place until the nest fledges or fails.
   b) **Eviction**. If, in consultation with the CDFW, it is determined that Project activities require removal of

occupied burrows, or burrows potentially occupied by burrowing owls, eviction and burrow closure may be required to ensure against "take" of owls or nests. However, if eviction is required, it will occur only after consulting with CDFW and CDFW approval of a Burrowing Owl Exclusion Plan. Monitoring will be conducted to ensure take is avoided during eviction procedures. Owls may not be evicted or captured without prior authorization from the CDFW.

Migratory Bird Treaty Act. To minimize potential impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA), construction activities should take place outside nesting season (February 1 to August 31), to the greatest extent practicable. If construction activities occur during nesting season, preconstruction nesting bird surveys shall be conducted for all construction areas including pull sites, staging areas, and transmission line work. The survey area shall include the construction area, plus an additional distance large enough to accommodate the protective buffer of MBTA-protected bird species likely to occur in proximity to the construction area. The surveys shall occur no more than seven days prior to initiation of construction activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the impact area shall be delineated. The avian biologist shall flag an appropriate avoidance buffer that sufficiently protects the species from disturbance caused by construction activities. To the maximum extent practicable, a minimum buffer zone around occupied nests should be determined by the avian biologist to avoid impacts to the active nest. Buffers shall not be based on generalized assumptions regarding all nesting birds but shall be specific to the site and species and account for specific stage of nesting cycle and construction work type. Appropriate and effective buffer distances shall be monitored. Buffer reductions for special status species and raptors shall be determined upon consultation with USFWS and CDFW. Buffer reductions for common species must be approved by the avian biologist and WAPA, USFWS and CDFW shall be notified. The location should be monitored regularly, and the buffer must remain in place until construction is complete, or the nest has fledged. If a special status species is found at any time, WAPA shall be notified within 48 hours, and WAPA shall determine the need for additional consultation with the appropriate resource agency or agencies. Once nesting has ceased, the buffer may be removed.

3. **Take Avoidance**. Should biologists identify nesting birds at any time prior to or during construction, biologists will implement a buffer around the nest that sufficiently protects the nesting pair from disturbance caused by construction activities, as determined by the avian biologist. The nest should be monitored regularly near active work areas, and the buffer must remain in place until construction is complete, or the nest is no longer active. If a special status species is found at any time, WAPA shall be notified within 48 hours, and WAPA shall determine the need for additional consultation with the appropriate resource agency or agencies.

4. **Biological Monitoring**. Biological monitors shall be present during construction activities in areas where sensitive resources identified by a biologist may be impacted by construction of the Project. Biological monitors shall be assigned to the Project in areas of sensitive biological resources. The monitors shall be responsible for ensuring that impacts on special status species, native vegetation, wildlife habitat, or aquatic resources shall be avoided to the fullest extent possible. Where appropriate, monitors shall flag the boundaries of areas where activities will need to be restricted in order to protect native plants and wildlife, special status species, and aquatic resources. Those restricted areas shall be monitored to ensure their protection during construction. The biological monitor shall halt work if it is determined that sensitive species or active nesting could be disturbed by construction activities. A Post-construction Report shall be provided to WAPA that includes a summary of Project activities, temporary impact limits of construction, a summary of monitoring activities, avoidance and minimization measures implemented, and non-compliance issues and

the actions to correct. The report shall be submitted to WAPA once the Project has been completed. WAPA shall submit to the appropriate resource agency or agencies.

5. **Limit Disturbance to Native Vegetation Communities and Trees**. Disturbance to native vegetation and trees shall be limited to the minimum practicable area required for construction of the Project. To the extent feasible, only crushing and/or trimming of vegetation shall only occur. Drive-and-crush methods shall be employed, with the exception of those areas where this method is not feasible for temporary staging areas for safety reasons and placement of temporary structures, such as construction trailers and water tanks.

6. **Restoration**. To restore temporarily disturbed areas, the crushed vegetation shall be clean cut to remove the damaged branches to prevent potential pest infestation/disease and increase plant recovery. Implementation of clean cutting the vegetation shall be under the supervision of a botanist. The cut vegetation from native plants shall be left to decompose on site. In addition, areas that were rutted and disturbed by tire marks shall be raked to discourage unauthorized off-road use.

7. **Habitat Restoration Plan**. If impacts to sensitive vegetation are not avoidable, prior to construction of the proposed Project and with the coordination and review of USFWS and CDFW, the applicant shall prepare a habitat restoration plan for temporary impacts to sensitive vegetation including Arrow Weed Thickets, Blue Palo Verde-Ironwood Woodland, Iodine Bush Scrub, and Mesquite Thickets. Details of the restoration plan shall be finalized pending consultation between the applicant, WAPA, USFWS, and CDFW. The restoration plan shall be prepared by a qualified botanist familiar with this vegetation association. The plan shall include the following elements: planting/reseeding species; monitoring plan and schedule, including duration and performance criteria; and any specific measures that shall be required to ensure success of the restoration effort. Suitable habitat shall be replaced at a 1:1 ratio, unless the applicant chooses to implement the restoration effort outside the project area, it must be no more than 100 miles away from the Project area.

8. **Invasive Plant Control Measures**. The applicant shall use standard BMPs to avoid the introduction and spread of controllable invasive plant species including but not limited to tamarisk, Sahara mustard, mustard species, non-native grasses, etc. during construction of the Project. Proper handling during construction shall include the following:
    a. All vehicles and equipment shall be cleaned prior to arrival at the work site.
    b. Crews, with construction inspector oversight, shall ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes before the vehicles and equipment are allowed use of access roads.
    c. Straw or hay bales used for sediment barrier installations or mulch distribution shall be obtained from state- cleared sources that are free of invasive weeds.

    The applicant shall develop an Invasive Plant Management Plan to outline the methods that shall be employed to prevent the spread of invasive plants on site. This plan shall be submitted to the CDFW and WAPA for review and comment no more than four months prior to the start of construction, with the intent to produce a final draft of the plan no later than two months prior to the start of construction.

Implementation of these avoidance and minimization measures shall reduce the potential for impacts to less than significant. Additional mitigation measures may be required by the agencies for Project authorization.

Please contact me at (949) 261-5414 ext. 7288 if you have any questions or concerns regarding this memo report.

Sincerely,

CHAMBERS GROUP, INC.

Paul Morrissey

Director of Biology, Vice President
pmorrissey@chambersgroupinc.com
(949) 261-5414 ext. 7288

Attachments

Attachment 1: Figure 1: Project Location and Vicinity
Figure 2: CNDDB Occurrences Map
Figure 3: USFWS Critical Habitat Map
Figure 4: Vegetation Communities Map
Figure 5: Watersheds Map
Figure 6: FEMA Flood Hazard Zones Map
Figure 7: NWI and NHD Mapped Jurisdictional Waters
Figure 8: Jurisdictional Delineation Results Map
Figure 9: Impacts to Jurisdictional Waters
Figure 10: Sensitive Species Observed

Attachment 2: Plant Species Observed

Attachment 3: Wildlife Species Observed/Detected

Attachment 4: Site Photographs

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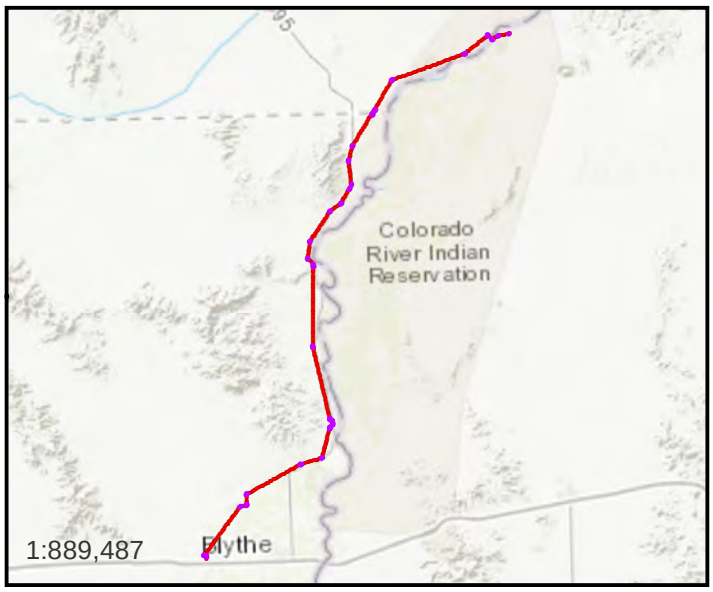
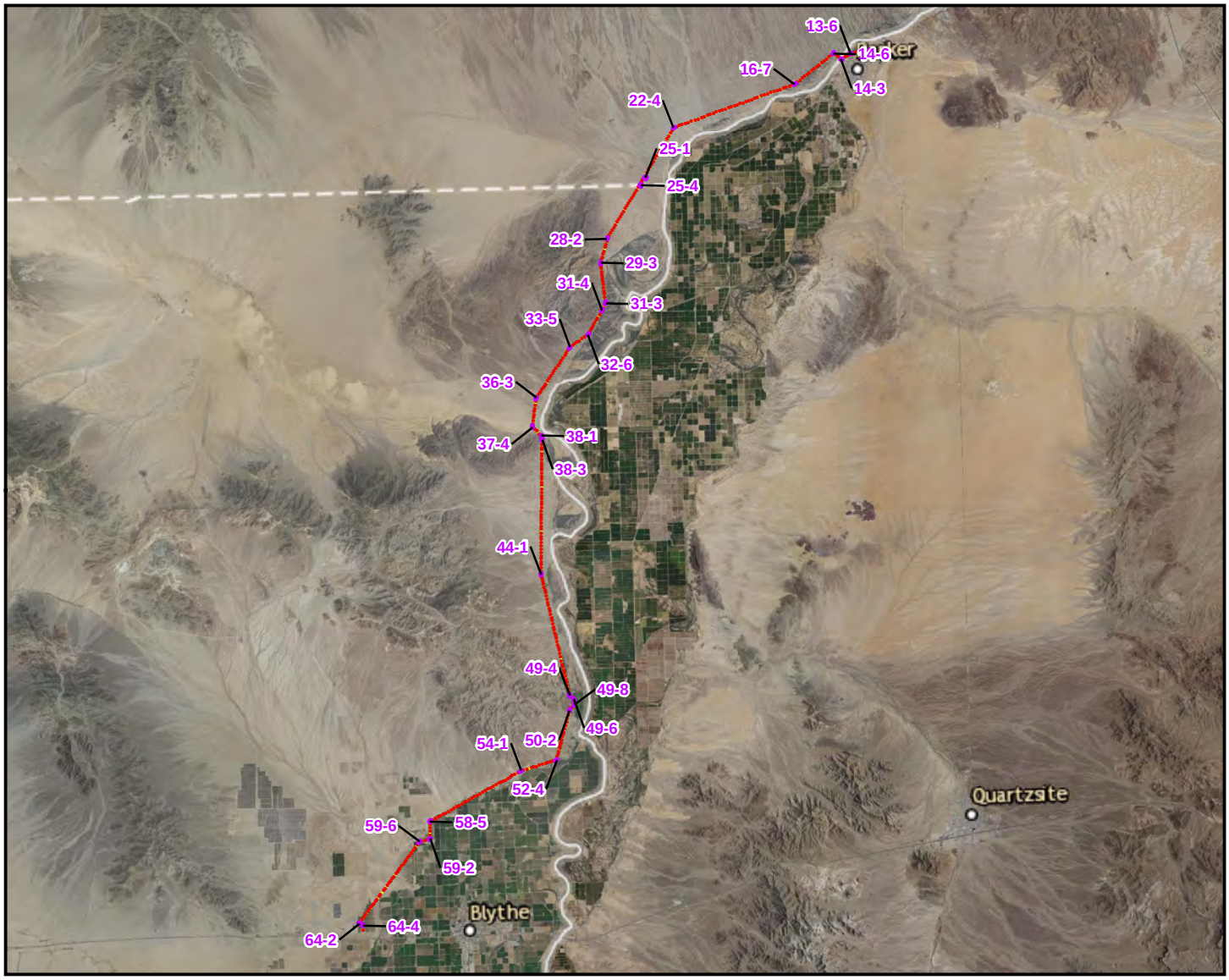
ATTACHMENT 1 – FIGURES





Structures

Transmission Line

Pull Sites

N

0 2 4 8

Miles

Figure 1
Vidal Energy
Project Location & Vicinity

Name: 21232 BIO Fig 1 Project Location and Vicinity.Mxd
Print Date: 7/4/2022, Author: pcarlos

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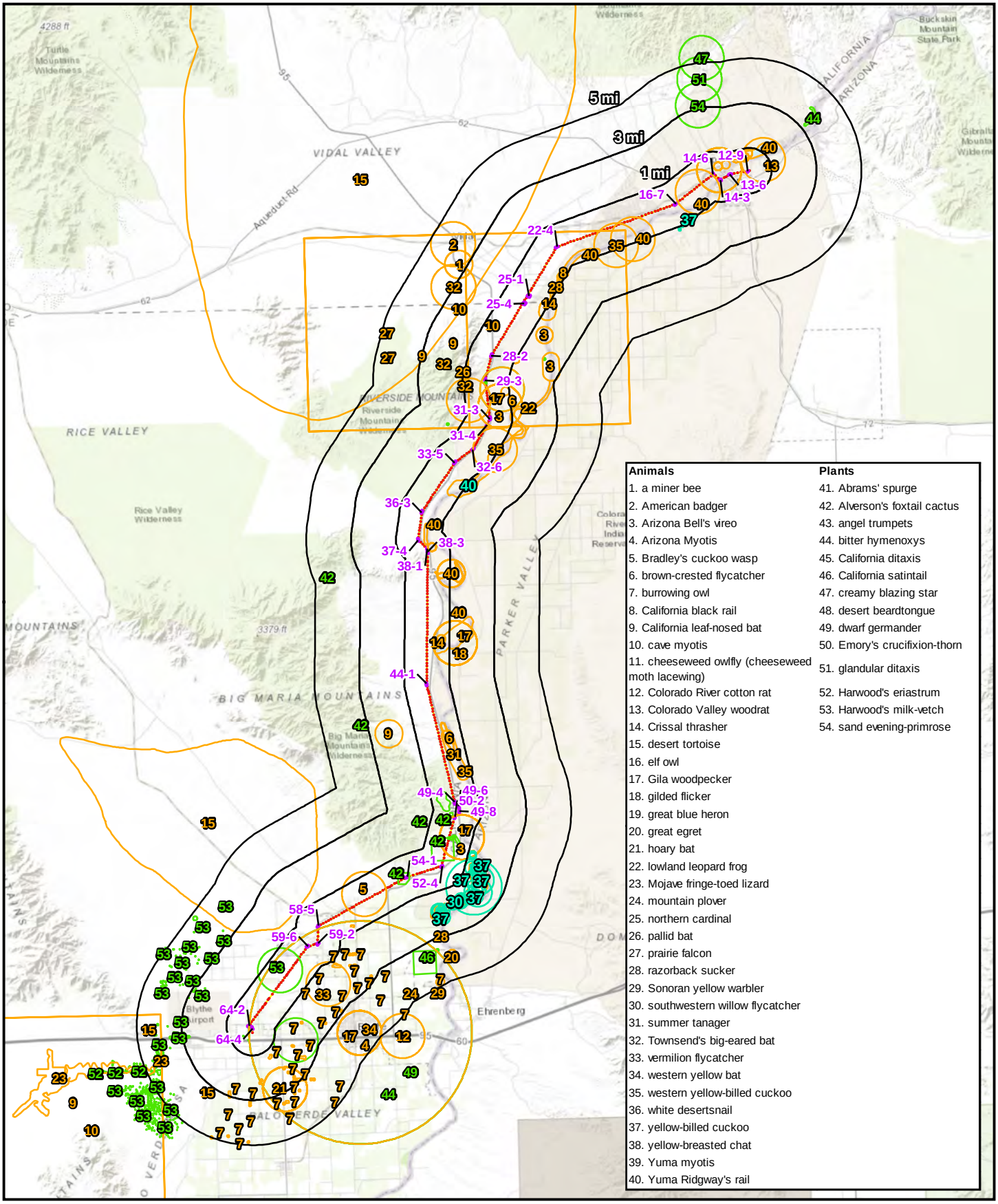

Figure 2
Vidal Energy FOC
Sensitive Species Occurrences
Within 5 Miles

Name: 21232 BIO Fig 2 Sensitive Species Occurrences Within 5 Miles.Mxd
Print Date: 7/6/2022, Author: pcarlos

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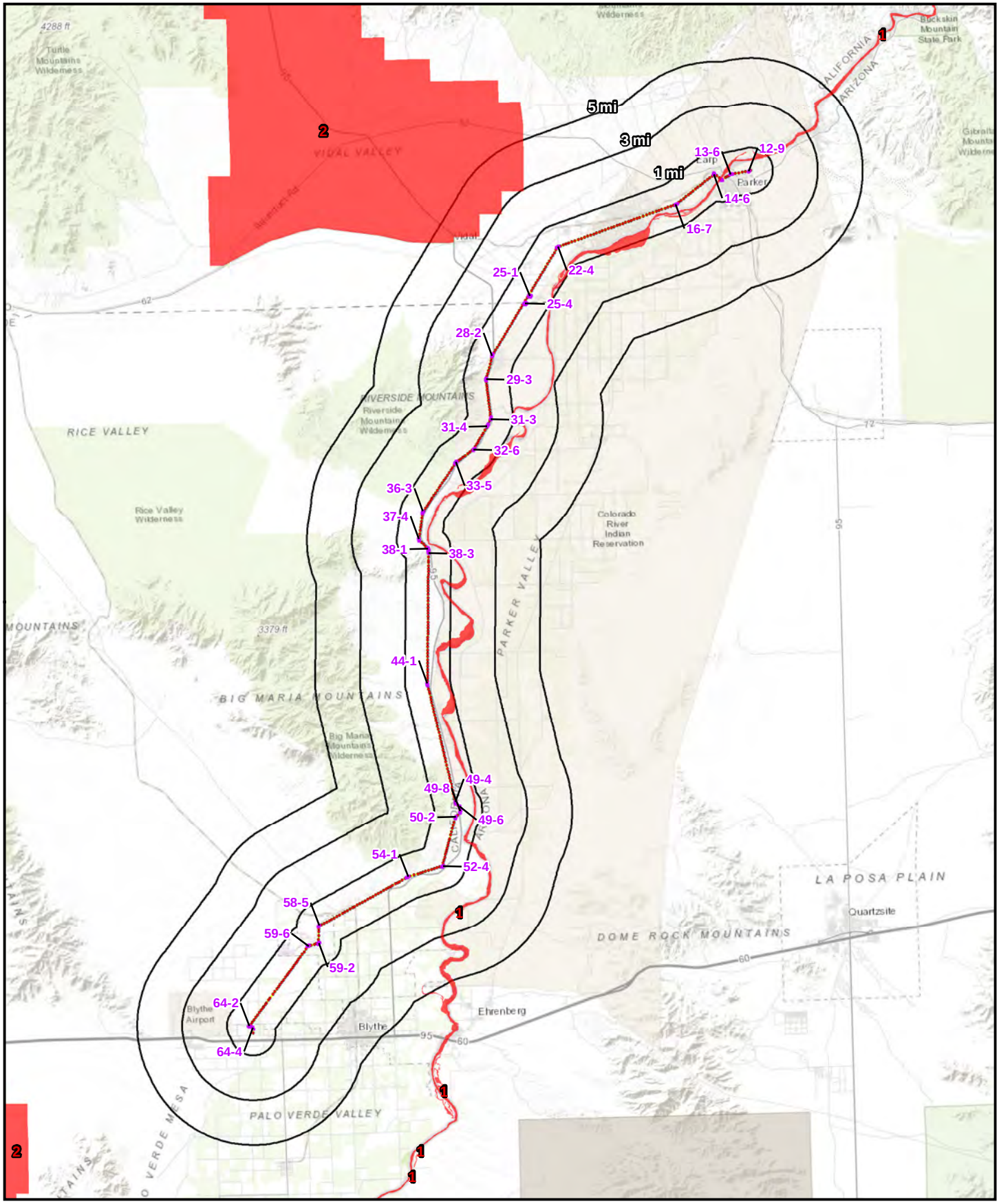

Structures
Transmission Line
Pull Sites
USFWS Critical Habitat

1. Razorback sucker
2. Desert tortoise

N

0 2 4 8

Miles

Figure 3
Vidal Energy FOC
USFWS Critical Habitat

Name: 21232 BIO Fig 3 USFWS Critical Habitat.Mxd
Print Date: 7/4/2022, Author: pcarlos

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 12-9

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
Print Date: 7/6/2022 6:23:40 PM Author: pcarlos

CHAMBERS GROUP

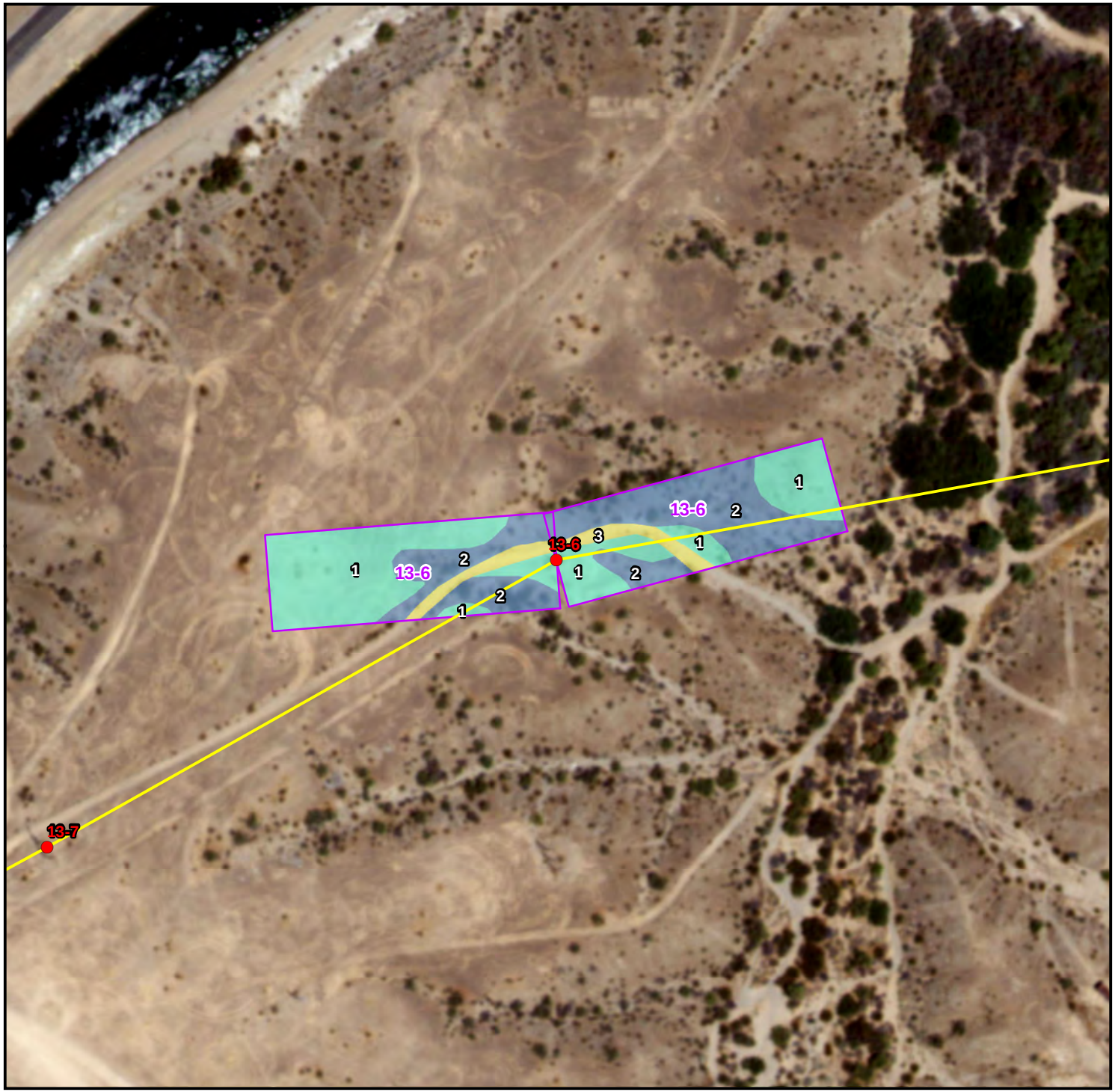

Figure 4
Vidal FOC
Vegetation Communities
Pull Site: 13-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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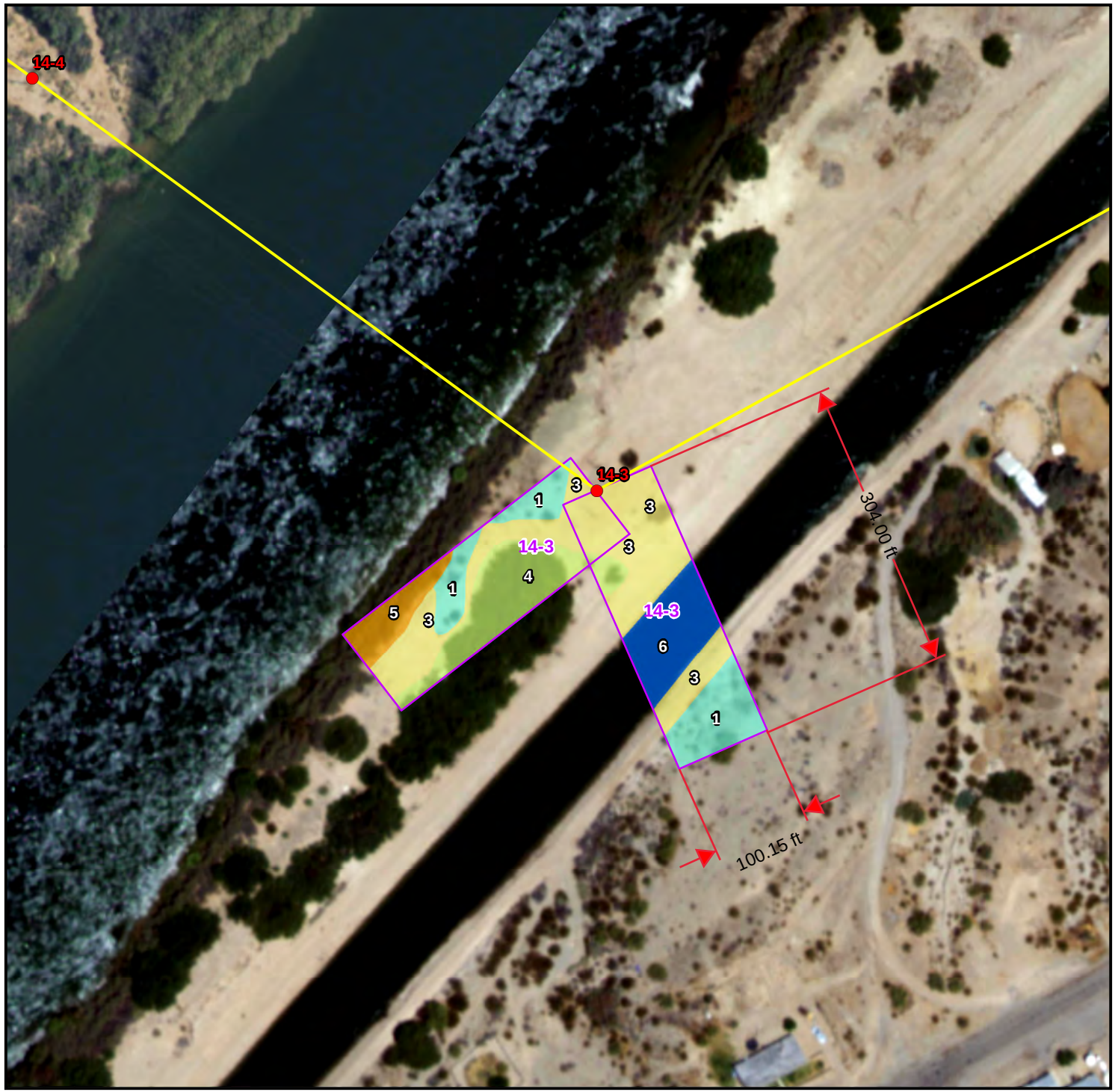

Figure 4
Vidal FOC
Vegetation Communities
Pull Site: 14-3

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground
- 4. Mesquite Thickets
- 5. Arrow Weed Thickets
- 6. Open Water

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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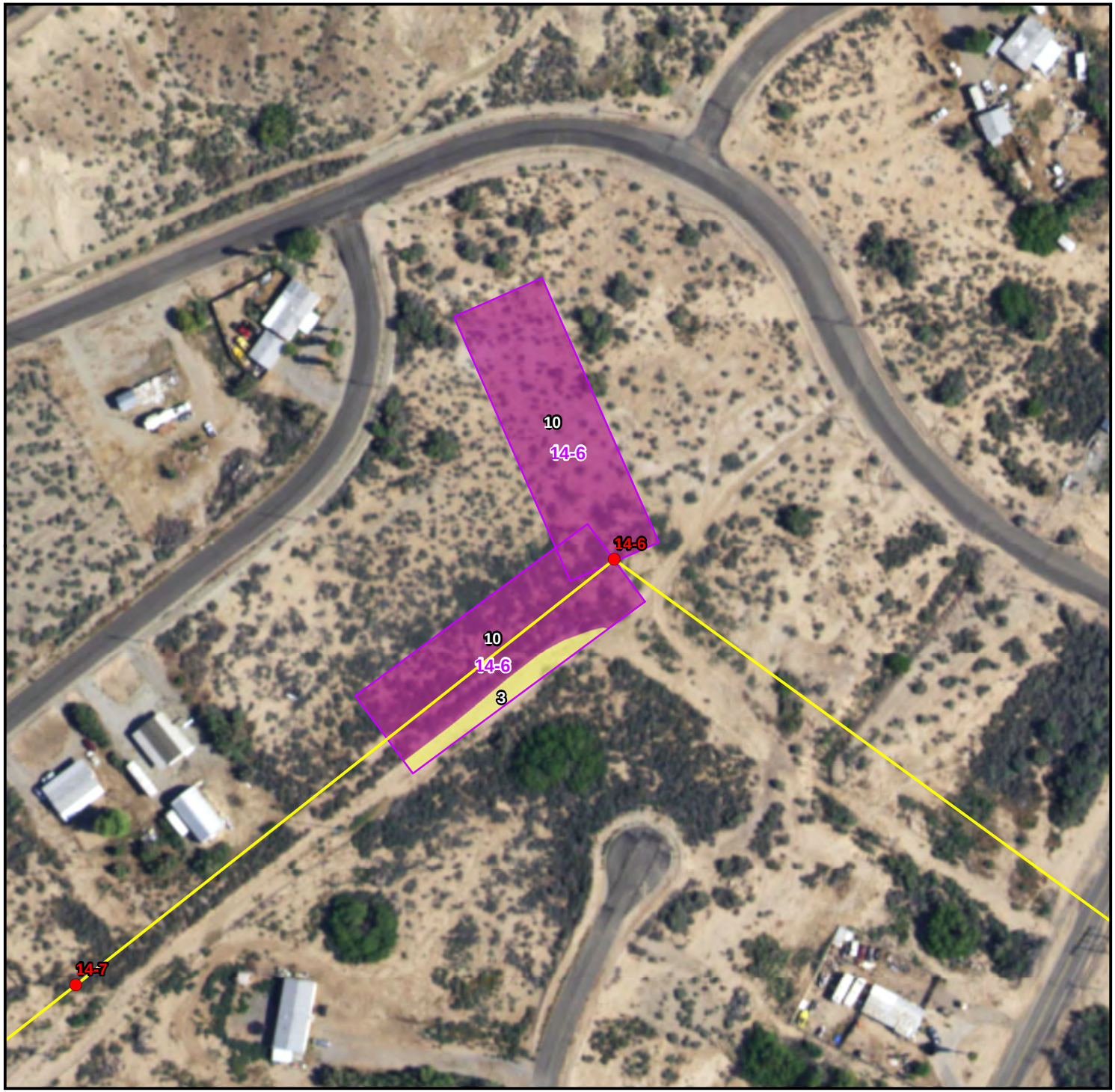

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 14-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 10. Iodine Bush Scrub

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 16-7

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 7. Tamarisk Thickets
- 8. Allscale Scrub
- 9. Disturbed

N

0 75 150 300

Feet

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Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 22-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 25-1

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 4. Mesquite Thickets

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 25-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland

N

0 75 150 300

Feet

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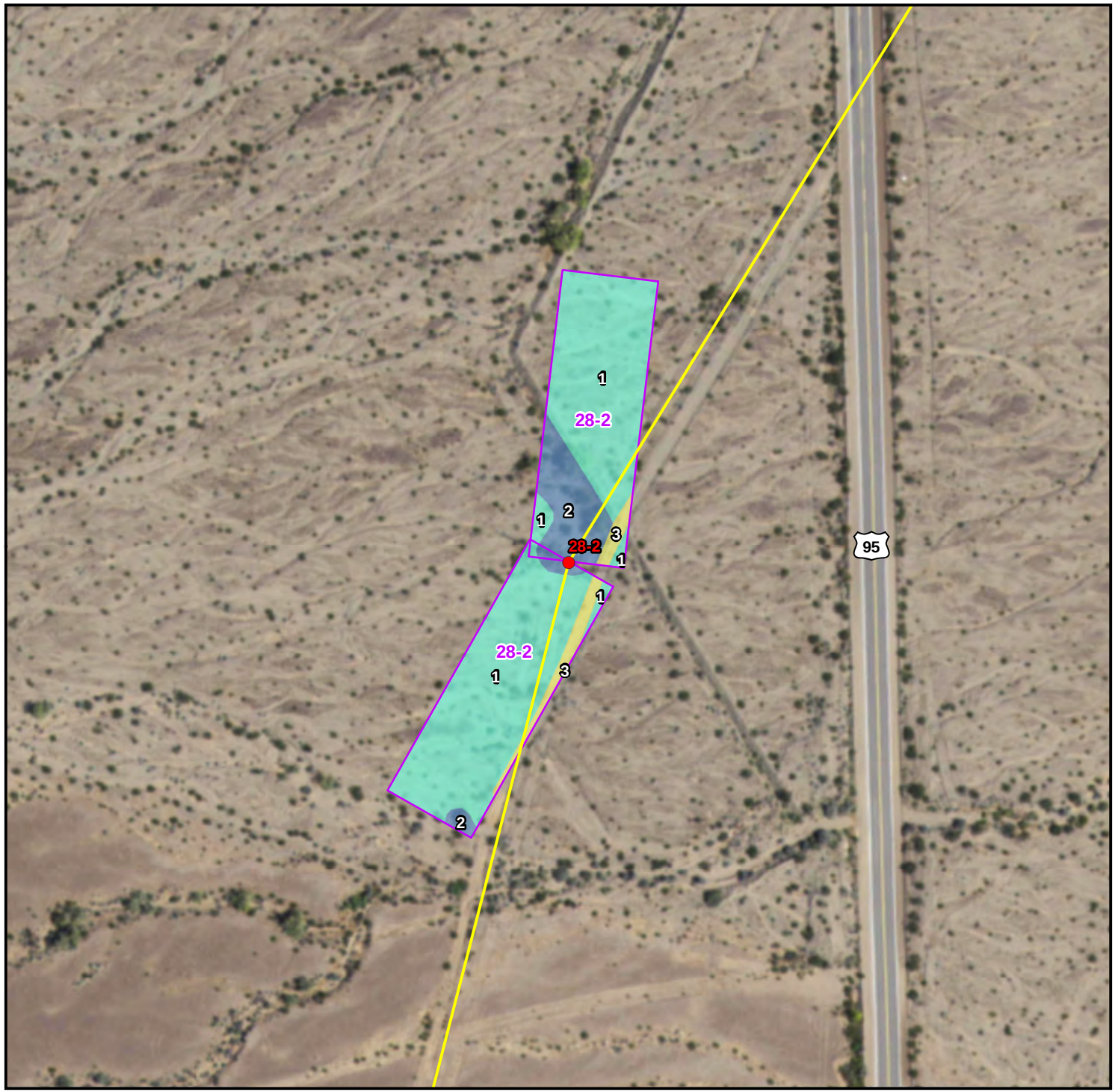

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 28-2

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 29-3

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

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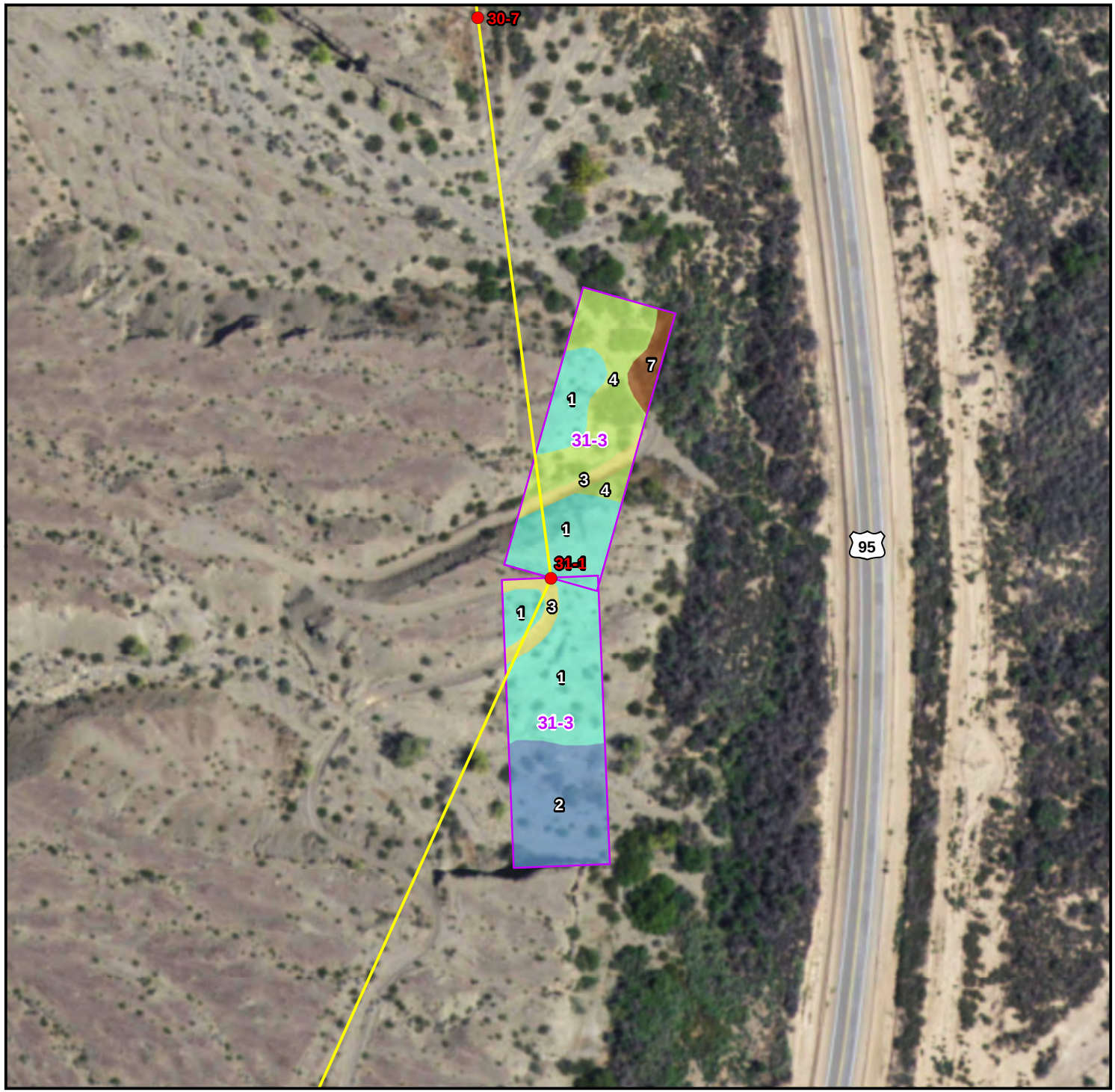

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 31-3

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground
- 4. Mesquite Thickets
- 7. Tamarisk Thickets

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 31-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 32-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 33-5

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 36-3

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 37-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

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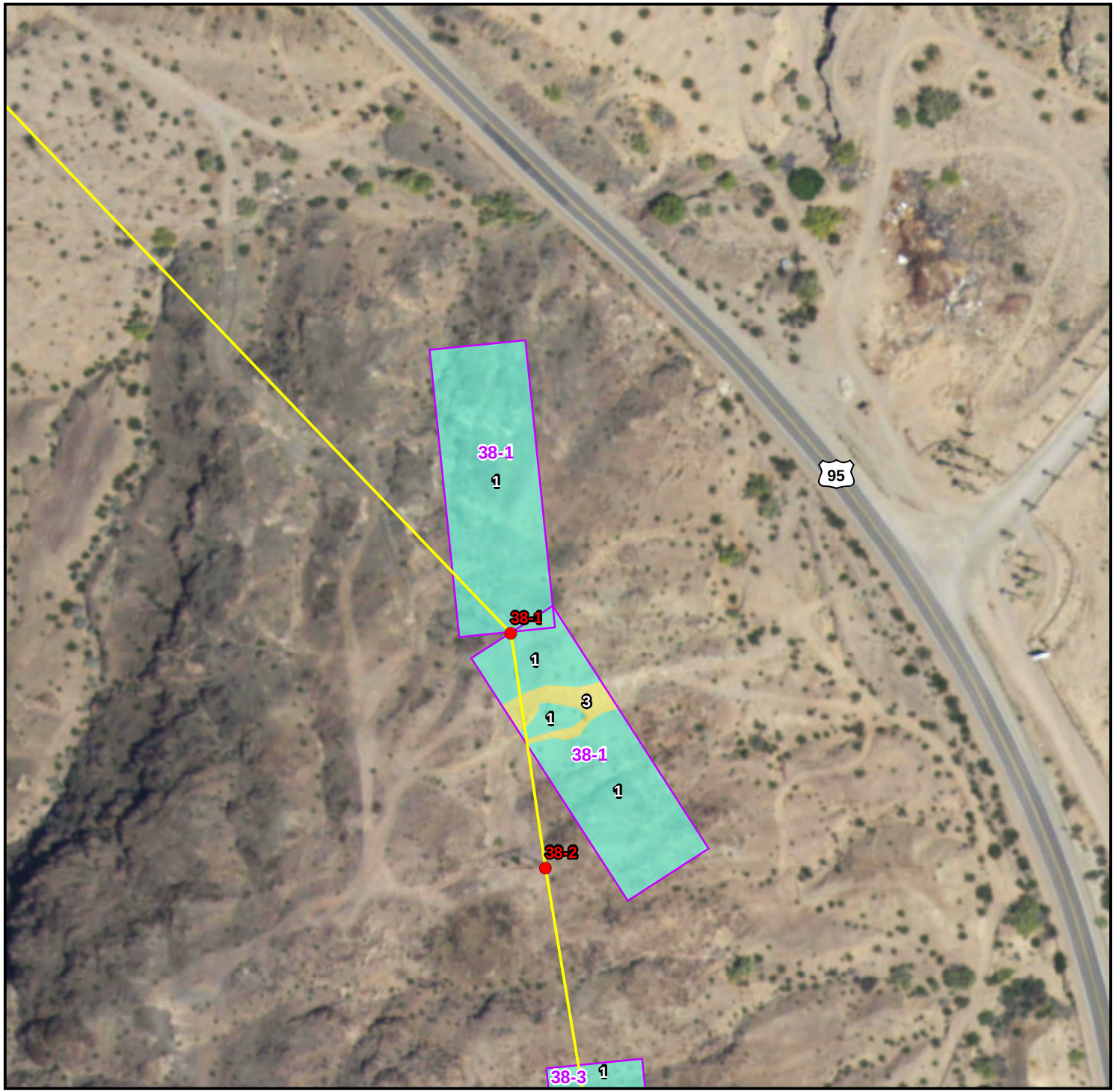

Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 38-1

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 38-3

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 44-1

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 2. Blue Palo Verde - Ironwood Woodland
- 3. Bare Ground

N

0 75 150 300

Feet

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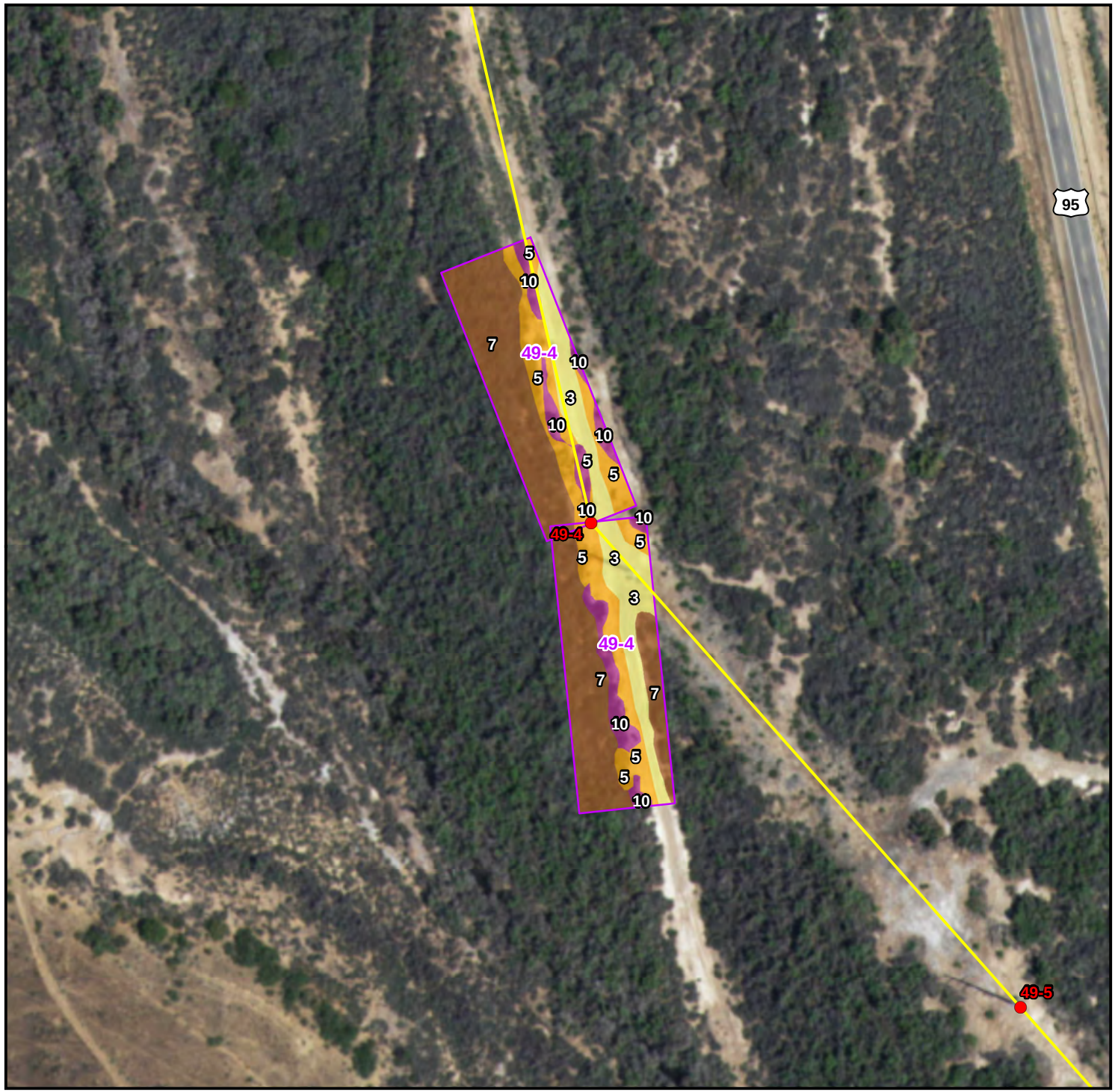

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 49-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 5. Arrow Weed
- 7. Tamarisk Thickets
- 10. Iodine Bush Scrub

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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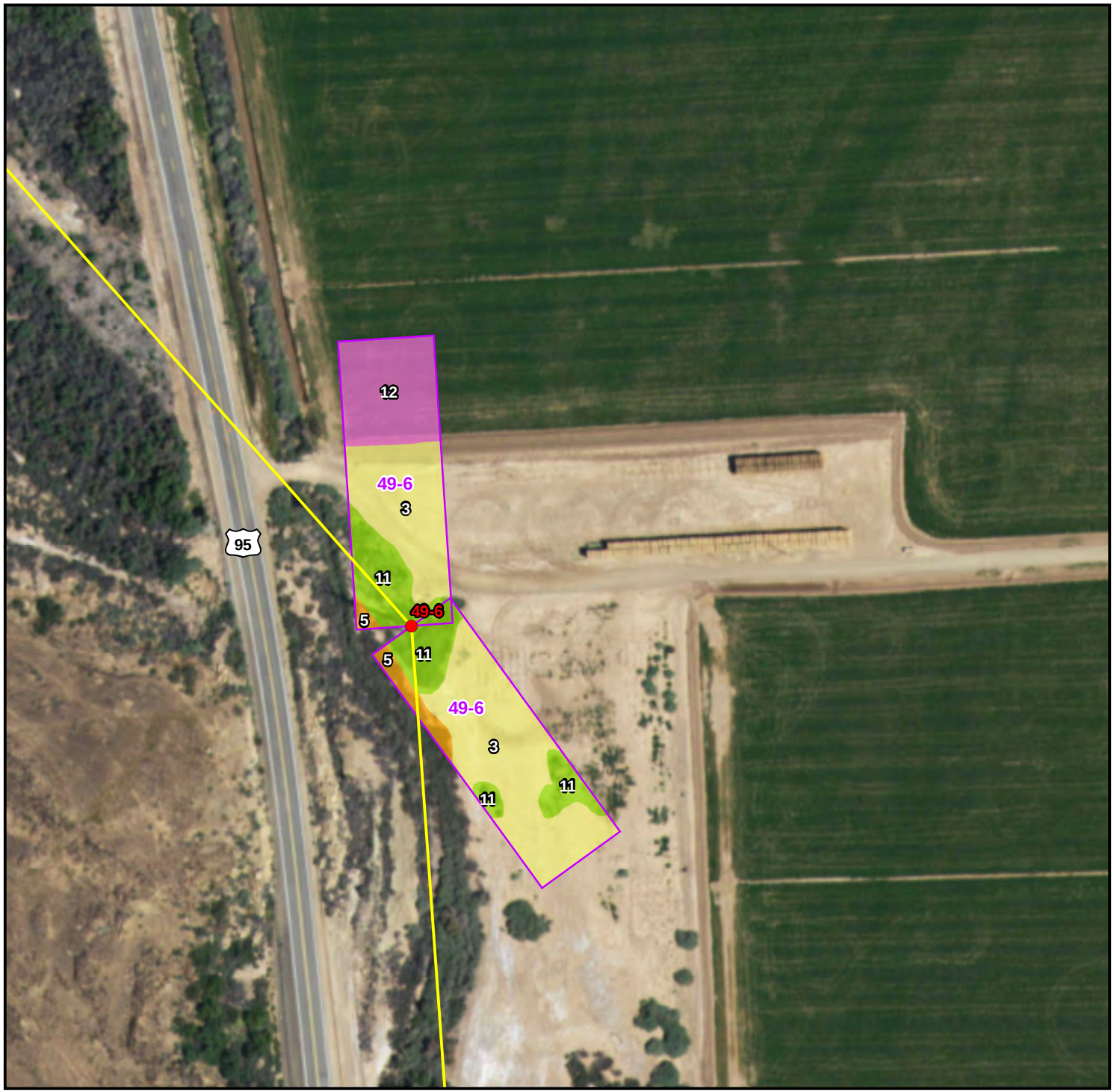

Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 49-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 5. Arrow Weed Thickets
- 11. Quail Bush Scrub
- 12. Agriculture/Ornamental

N

0 75 150 300

Feet

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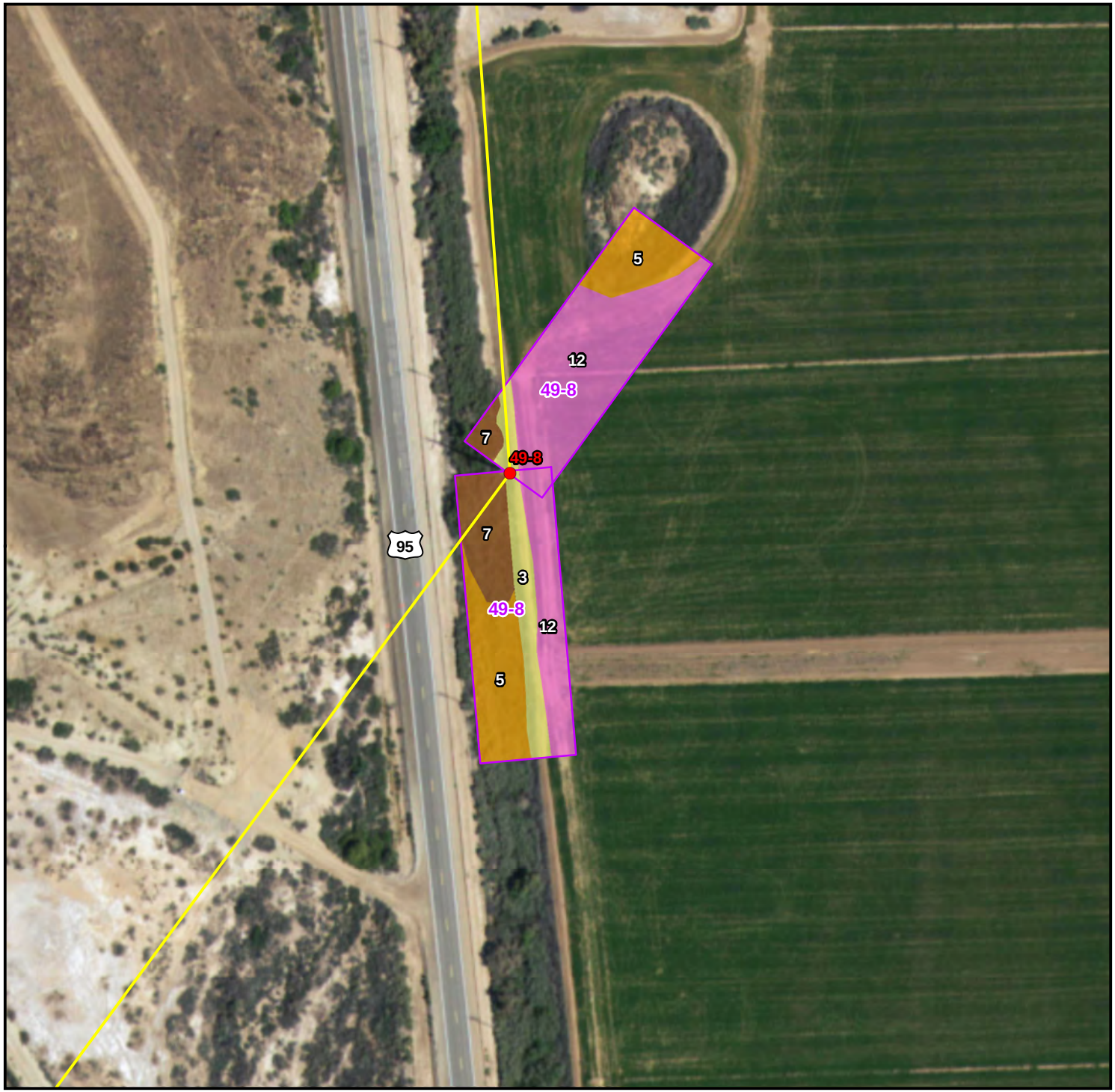

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 49-8

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 5. Arrow Weed Thickets
- 7. Tamarisk Thickets
- 12. Agriculture/Ornamental

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 50-2

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground
- 13. Brittle Brush Scrub
- 14. Creosote Bush - Brittle Bush Scrub

N

0 75 150 300

Feet

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Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 52-4

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

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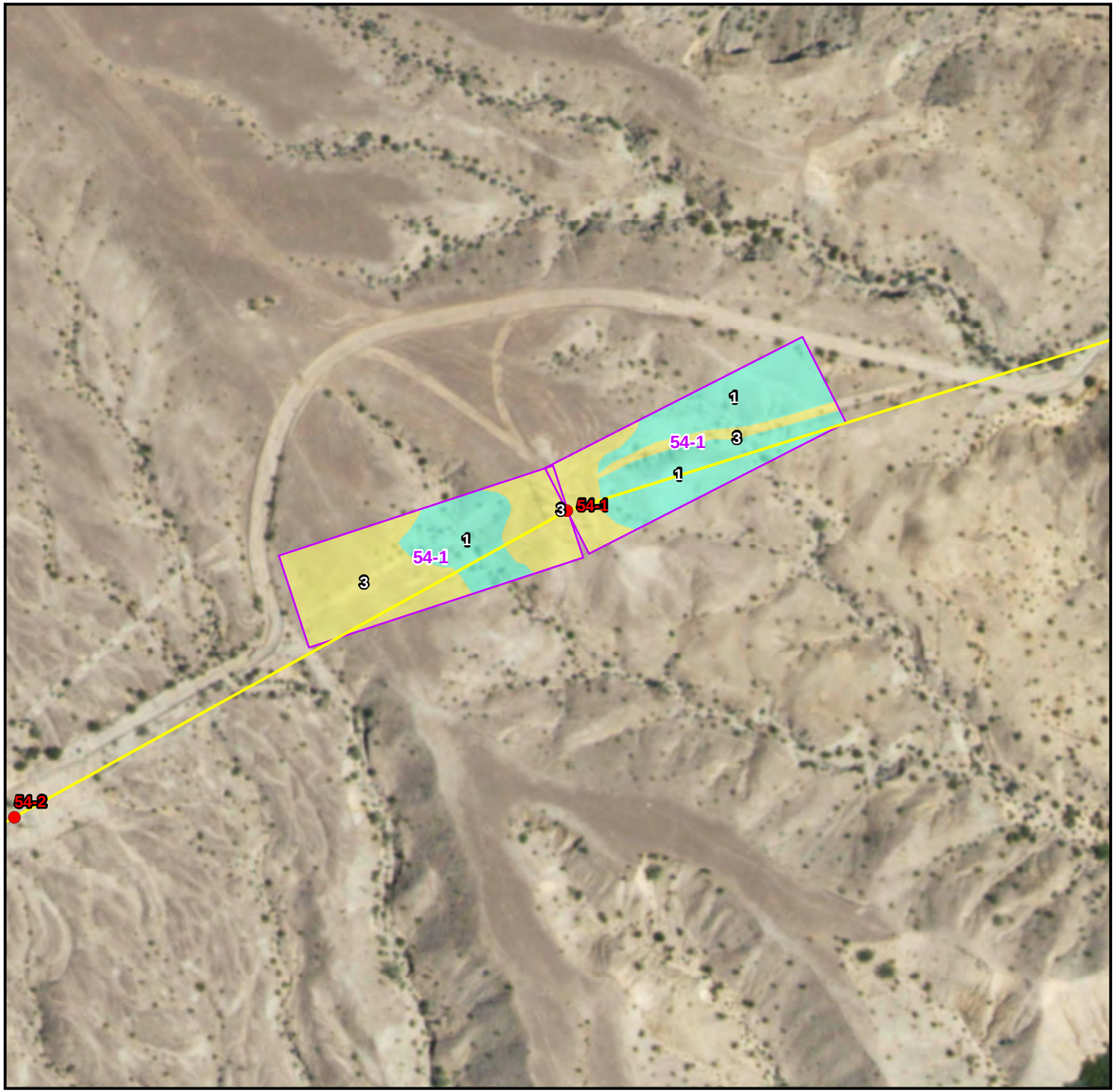

Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 54-1

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 58-5

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 59-2

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 8D. Disturbed Allscale Scrub
- 12. Agriculture/Ornamental

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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Figure 4

Vidal FOC
Vegetation Communities
Pull Site: 59-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 1. Creosote Bush Scrub
- 3. Bare Ground
- 12. Agriculture/Ornamental

N

0 75 150 300

Feet

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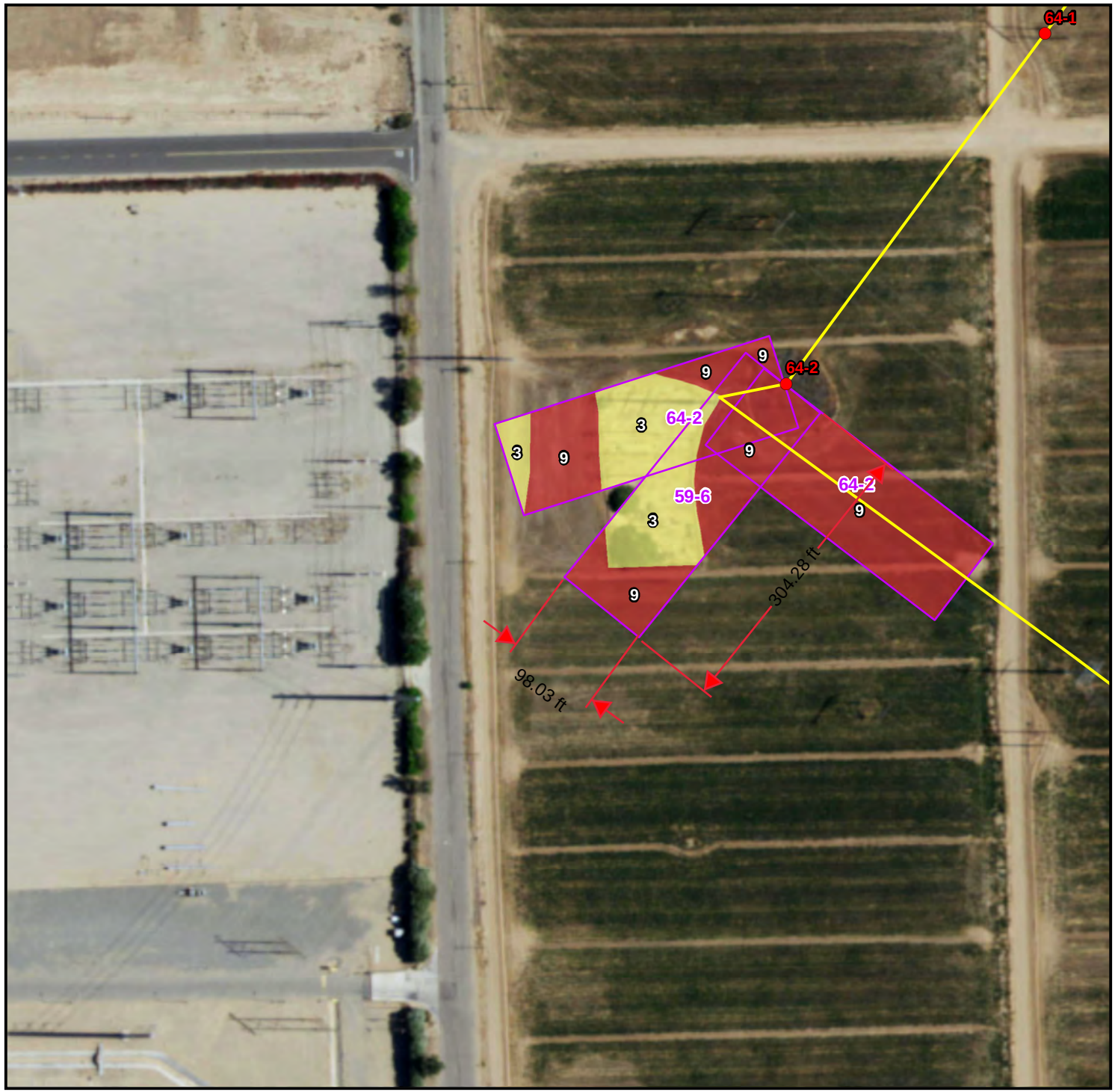

Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 64-2, 59-6

- Structures
- Transmission Line
- Pull Sites

Vegetation Community Surveys

- 3. Bare Ground
- 9. Disturbed

N

0 75 150 300

Feet

Name: 21232 BIO Fig 4 Vegetation Communities.Mxd
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Figure 4

Vidal FOC

Vegetation Communities

Pull Site: 64-4

Transmission Line

Pull Sites

Vegetation Community Surveys

3. Bare Ground

9. Disturbed

N

0 75 150 300

Feet

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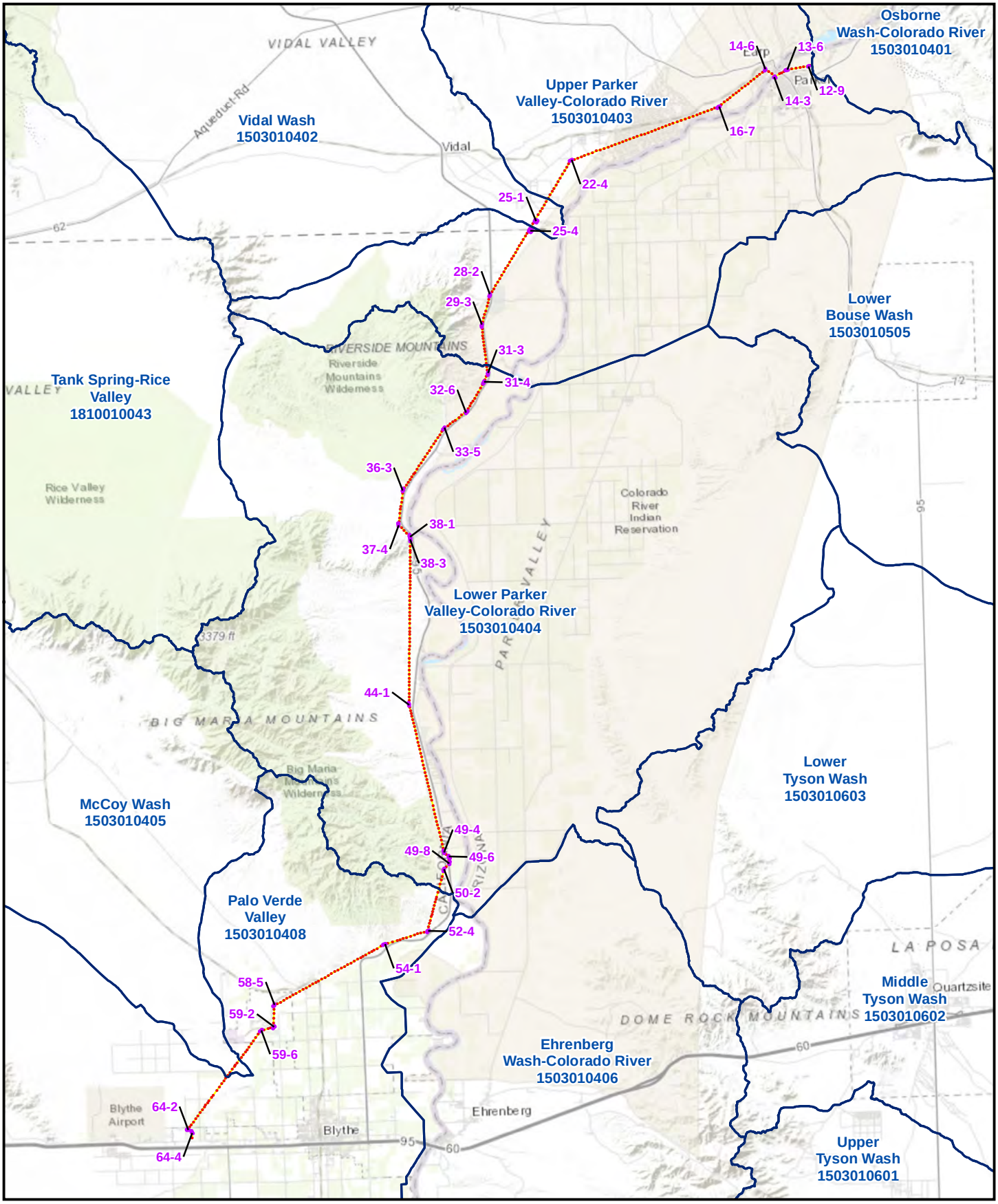

Figure 5
Vidal Energy FOC
Watersheds

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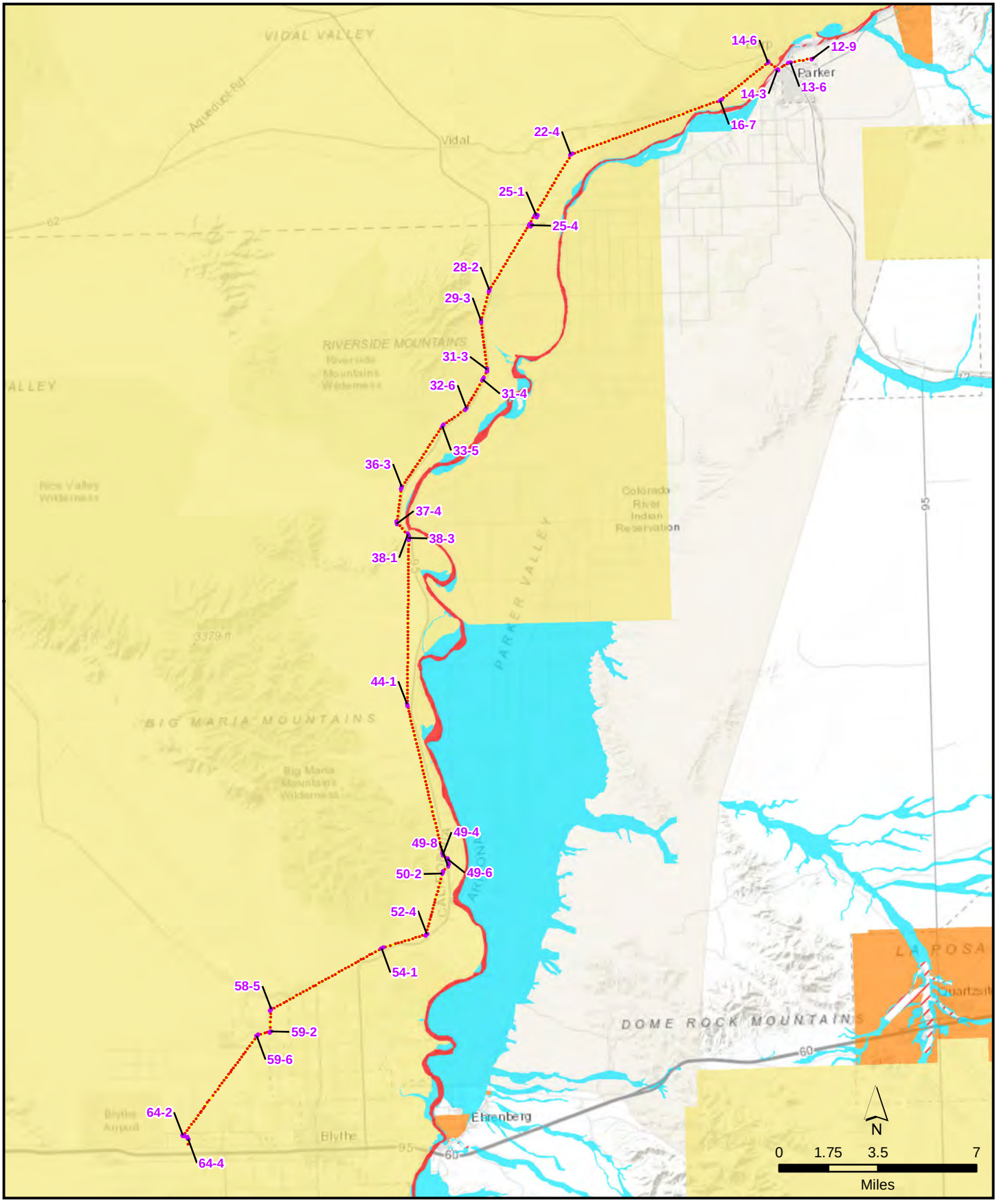

Structures — Transmission Line — Pull Sites

FEMA Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard

Figure 6
Vidal Energy FOC
FEMA Flood Hazard Zones

Name: 21232 BIO Fig 6 FEMA Flood Hazard Zones.Mxd
Print Date: 7/5/2022, Author: pcarlos

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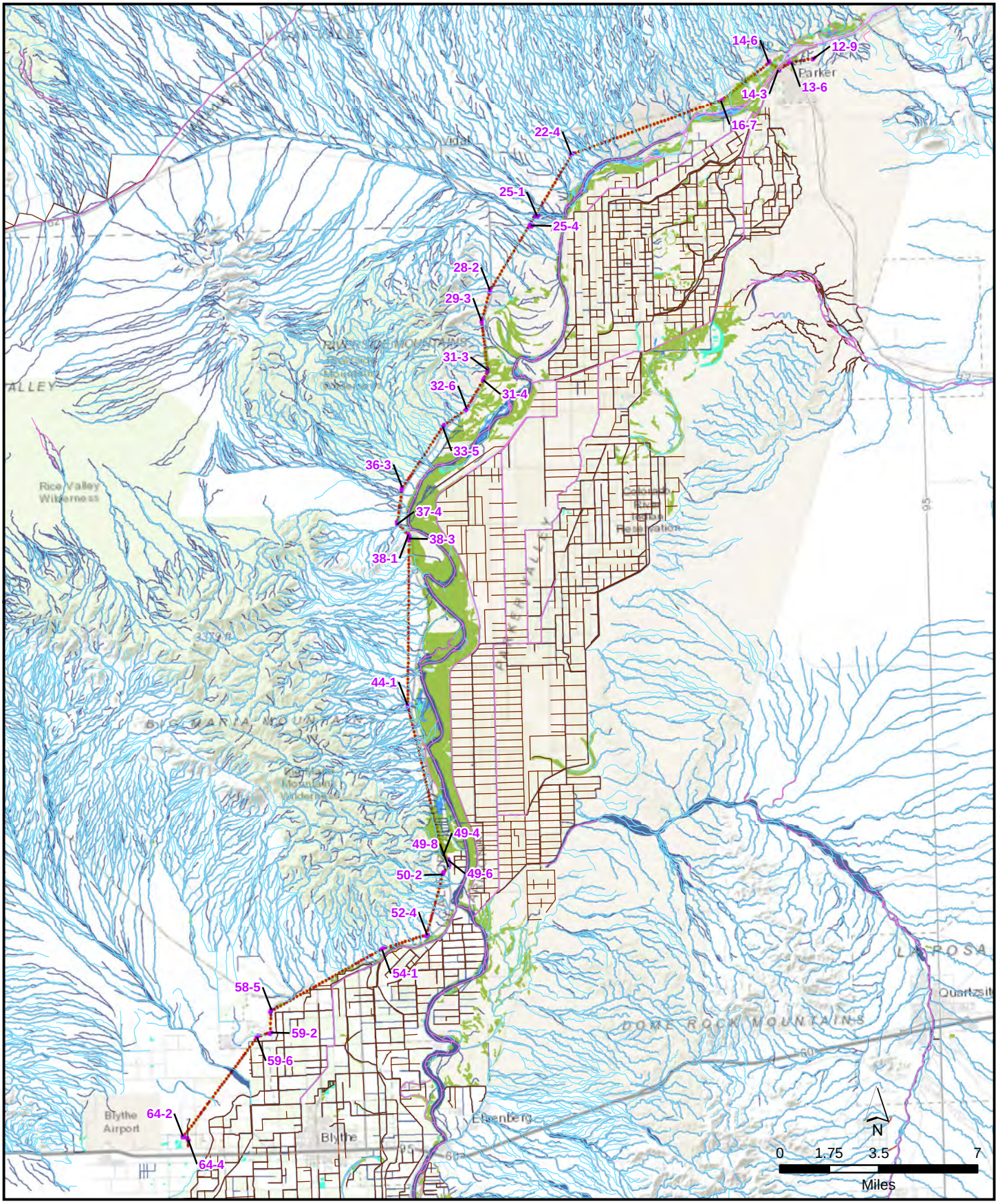

Structures Transmission Line Pull Sites

NHD

Artificial Path Connector Stream/River

Canal/Ditch Pipeline

NWI

Freshwater Emergent Wetland Freshwater Pond Riverine

Freshwater Forested/Shrub Wetland Lake

Figure 7
Vidal Energy FOC
Jurisdictional Waters NWI and NHD

Name: 21232 BIO Fig 7 Jurisdictional Waters NWI and NHD.Mxd
Print Date: 7/5/2022, Author: pcarlos

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Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 12-9

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
Print Date: 7/7/2022 10:35:15 AM Author: pcarlos

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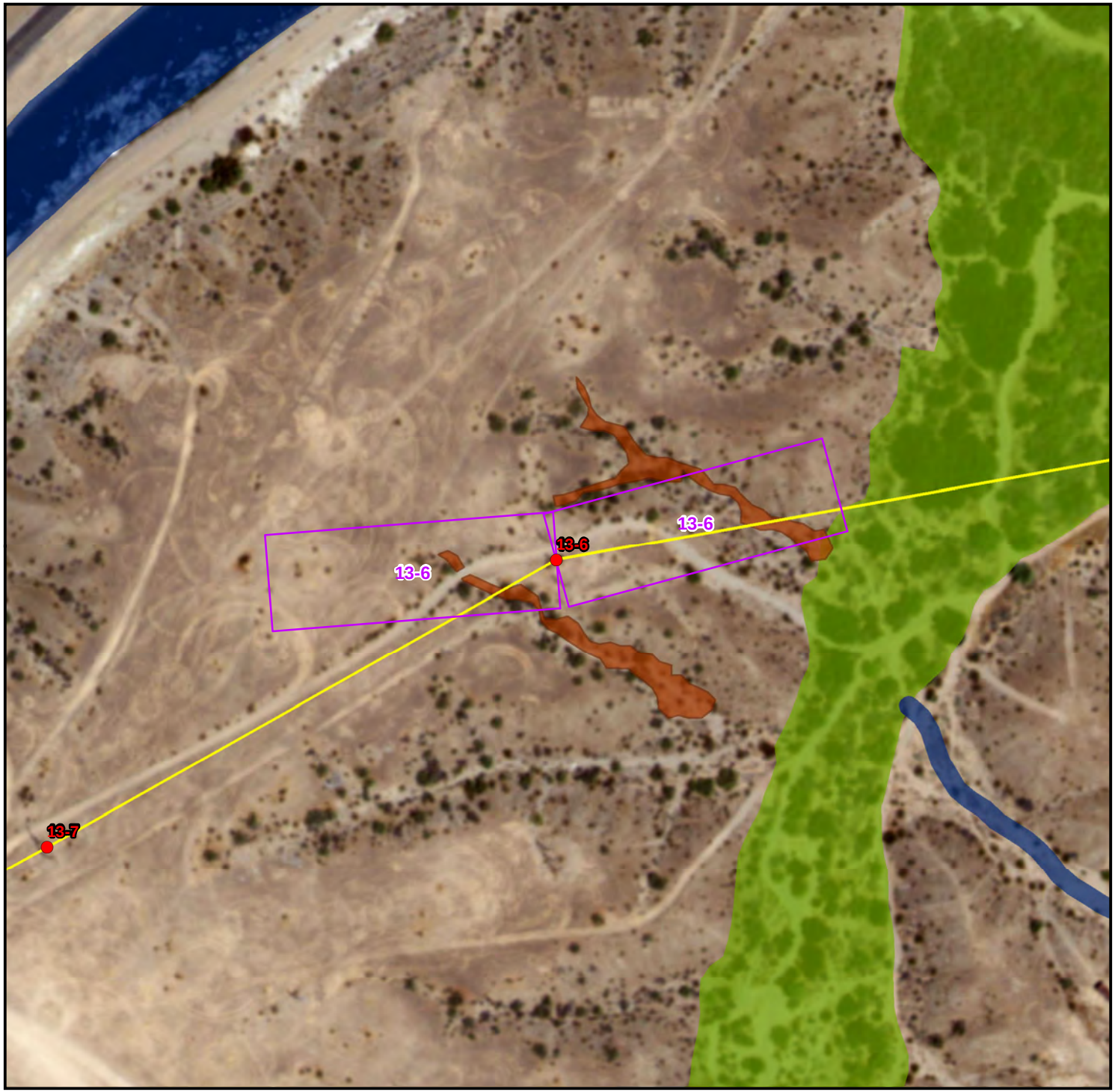

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 13-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 14-3

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 14-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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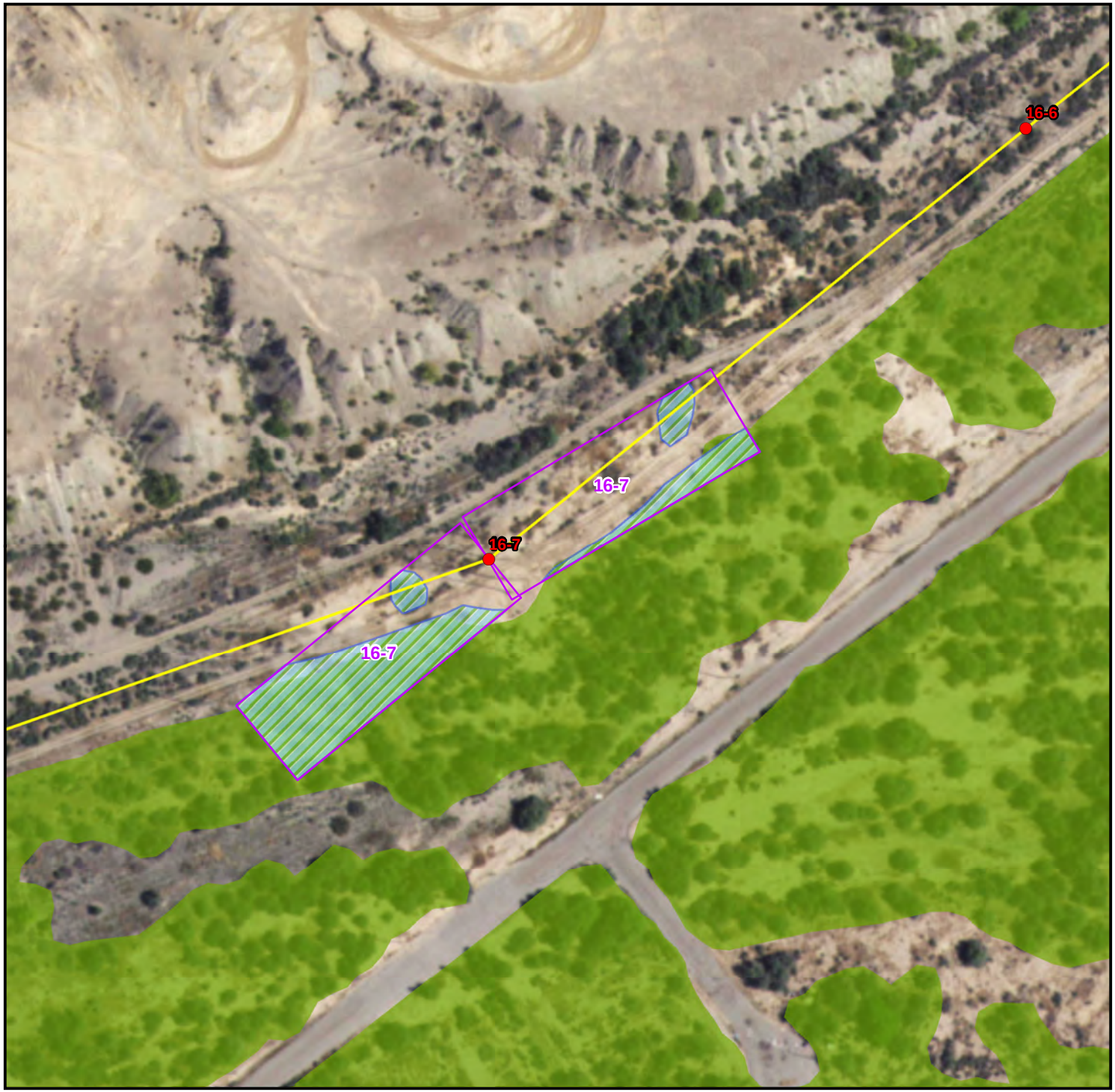

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 16-7

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 22-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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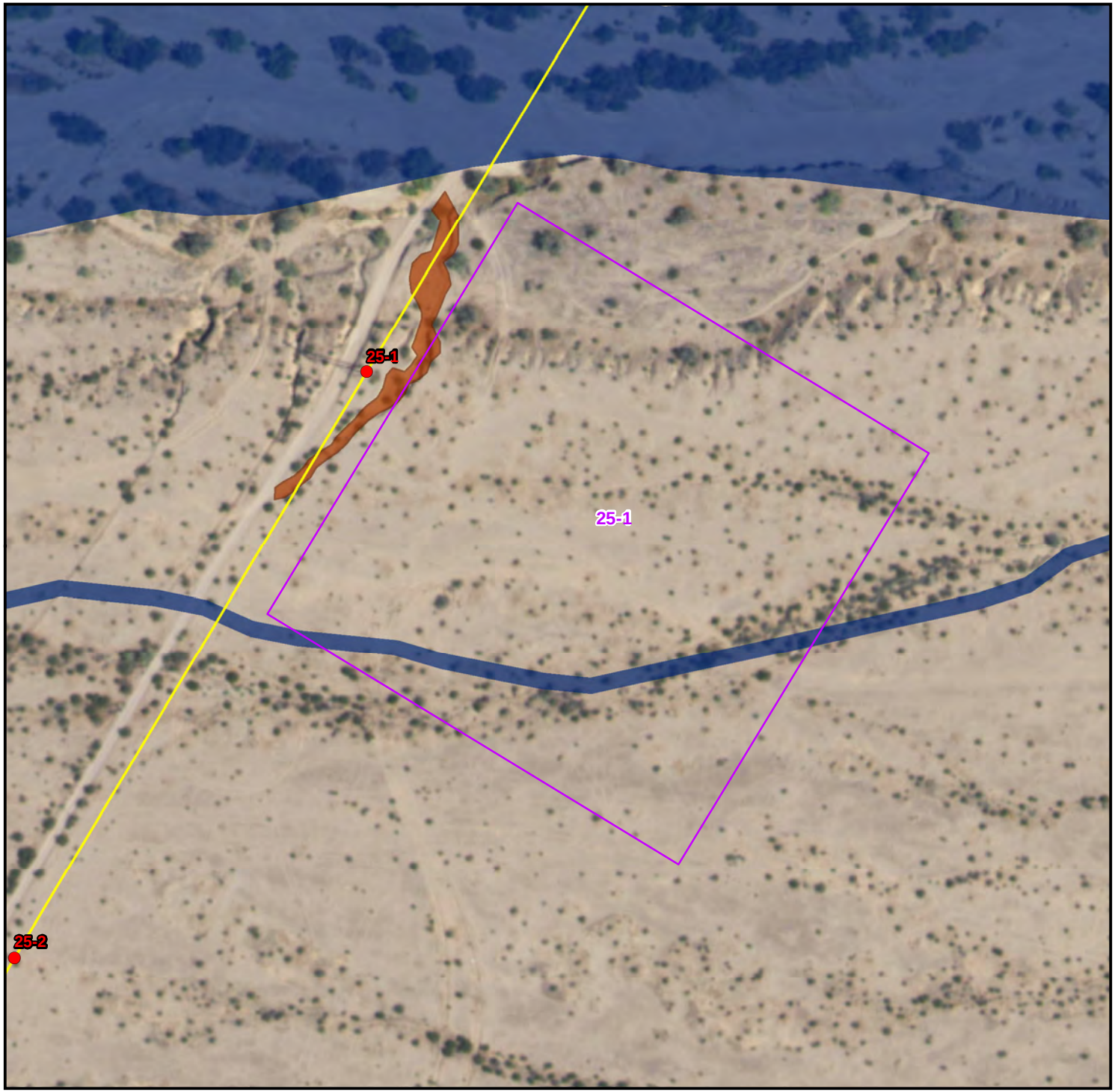

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 25-1

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 25-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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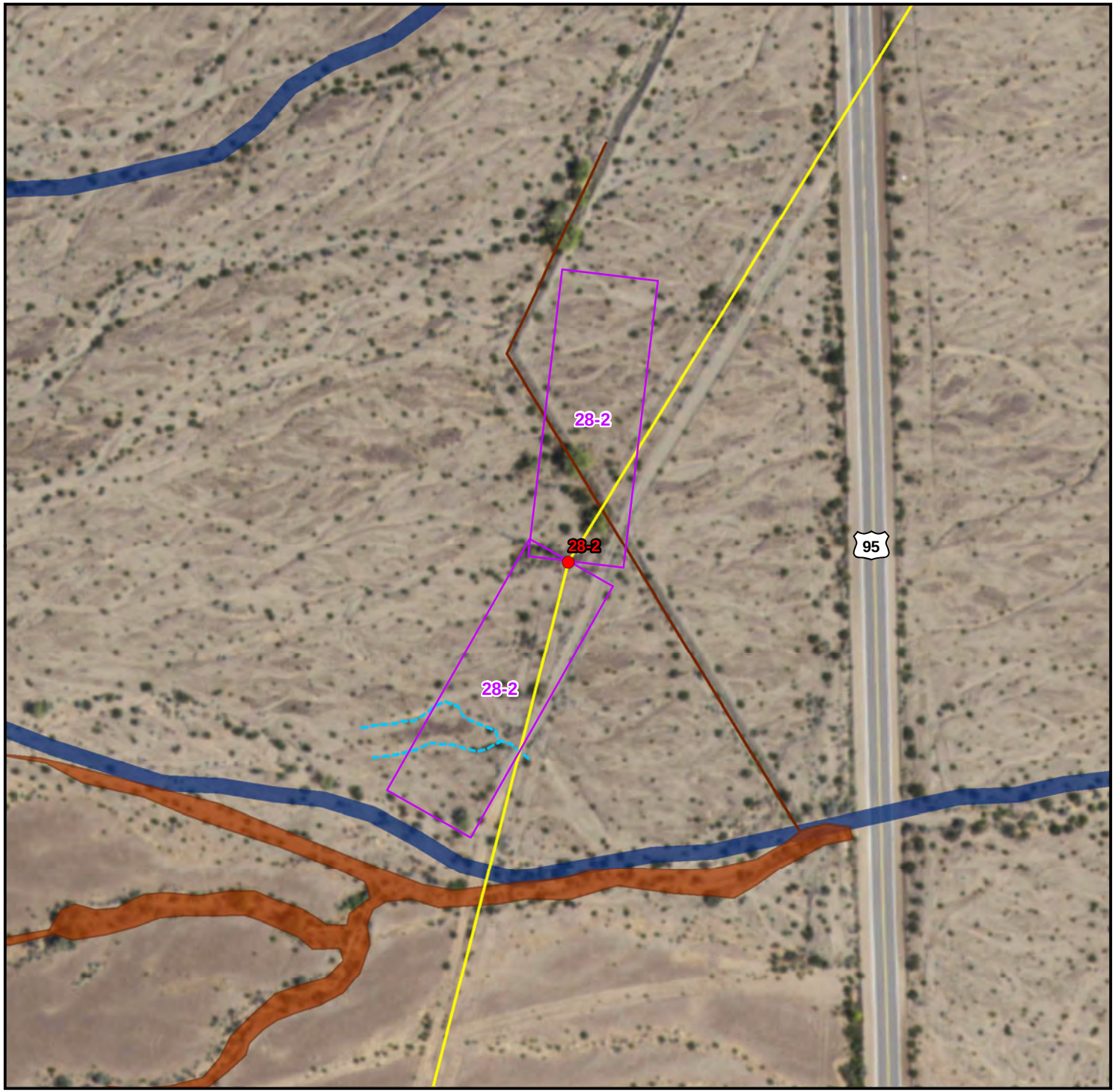

Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 28-2

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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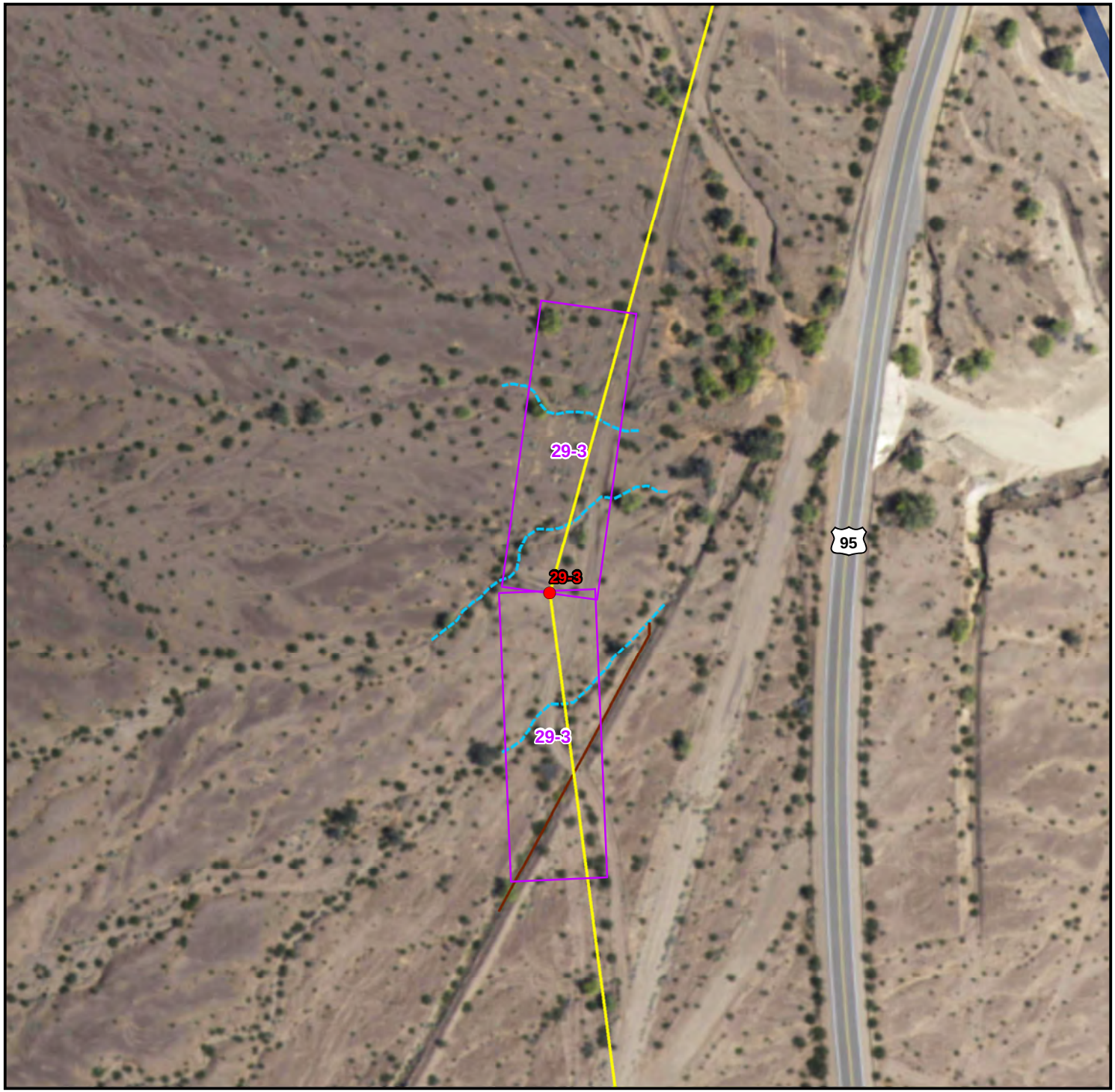

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 29-3

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 31-3

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 31-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 32-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 33-5

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 36-3

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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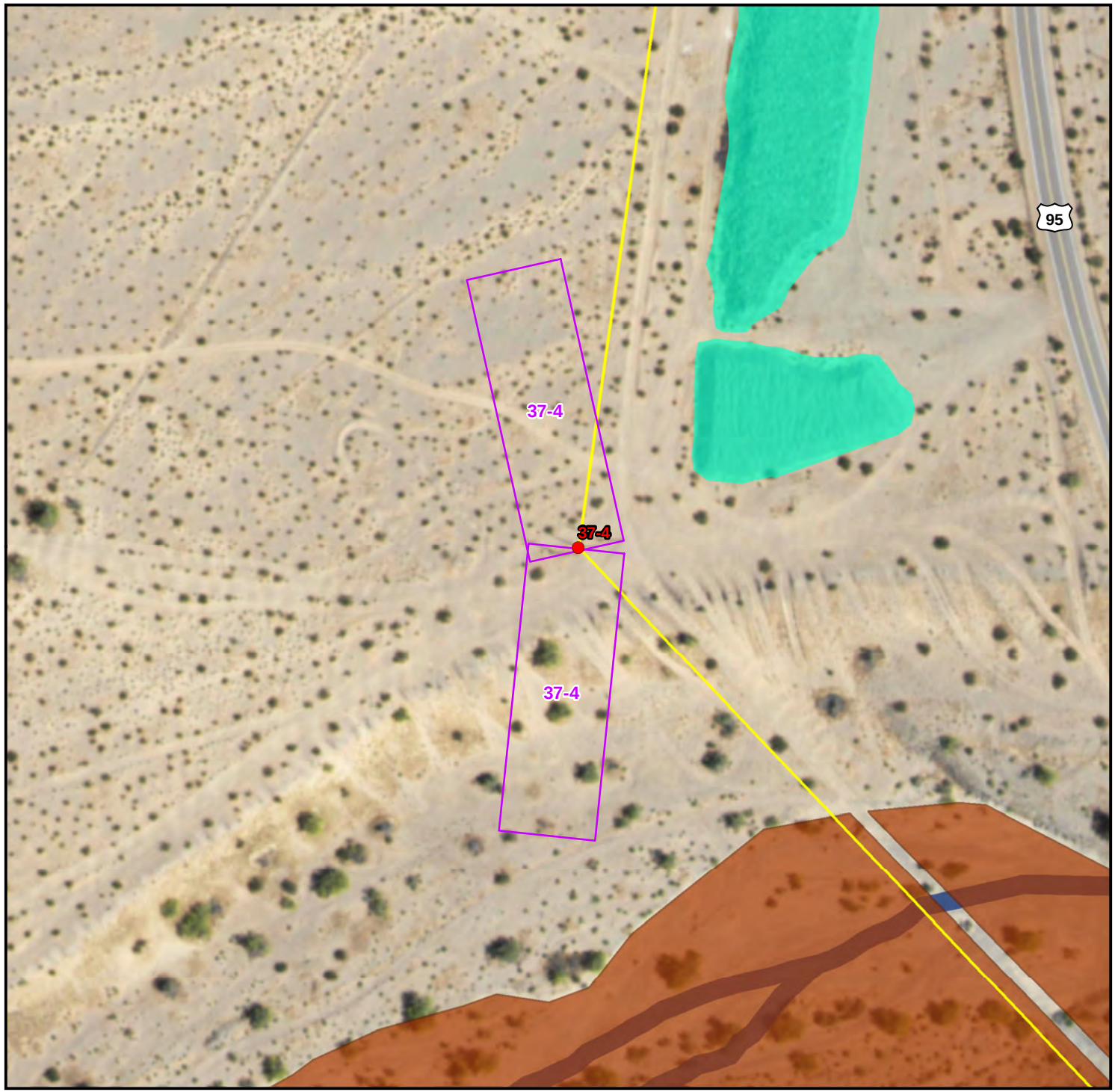

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 37-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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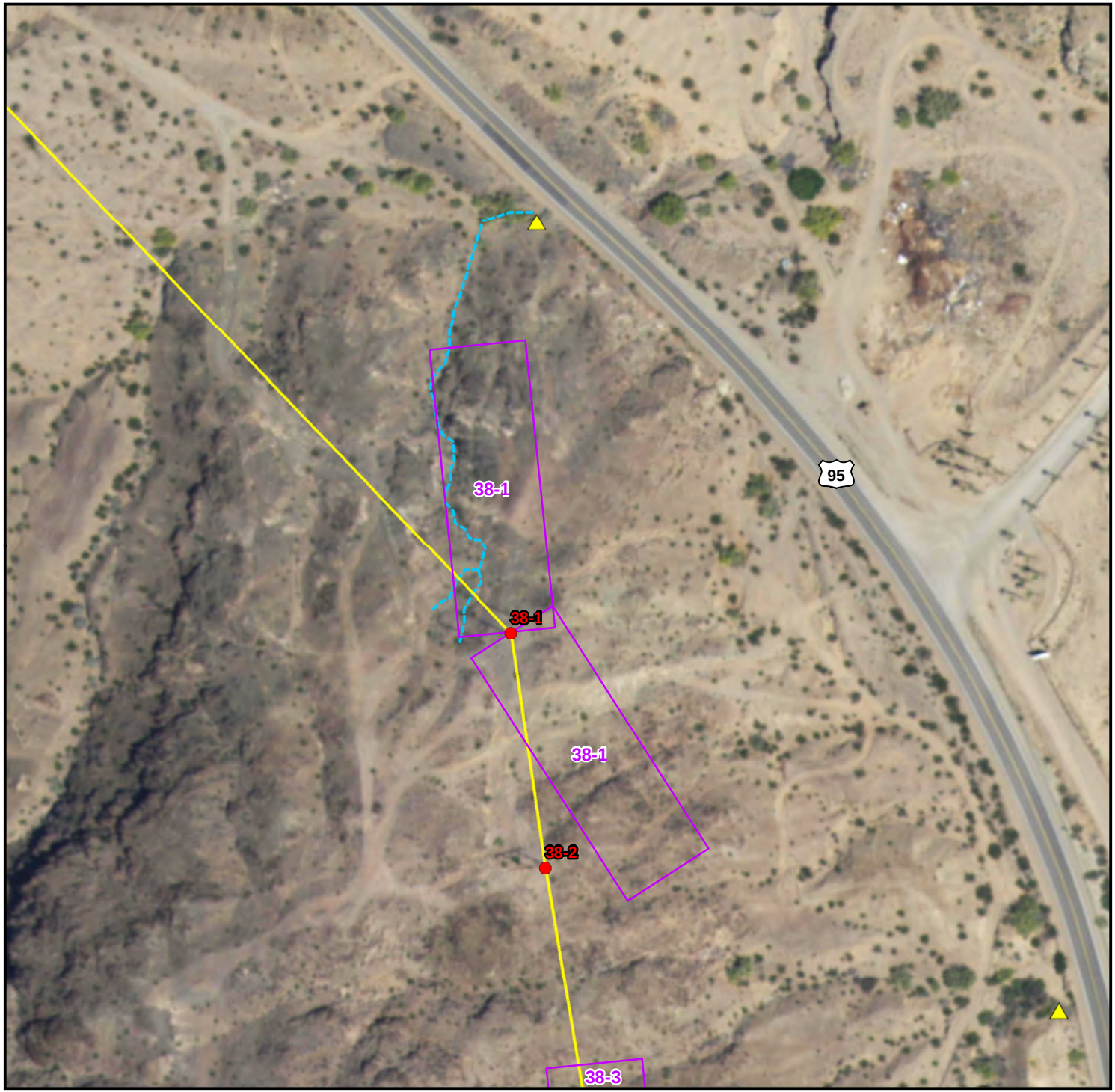

Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 38-1

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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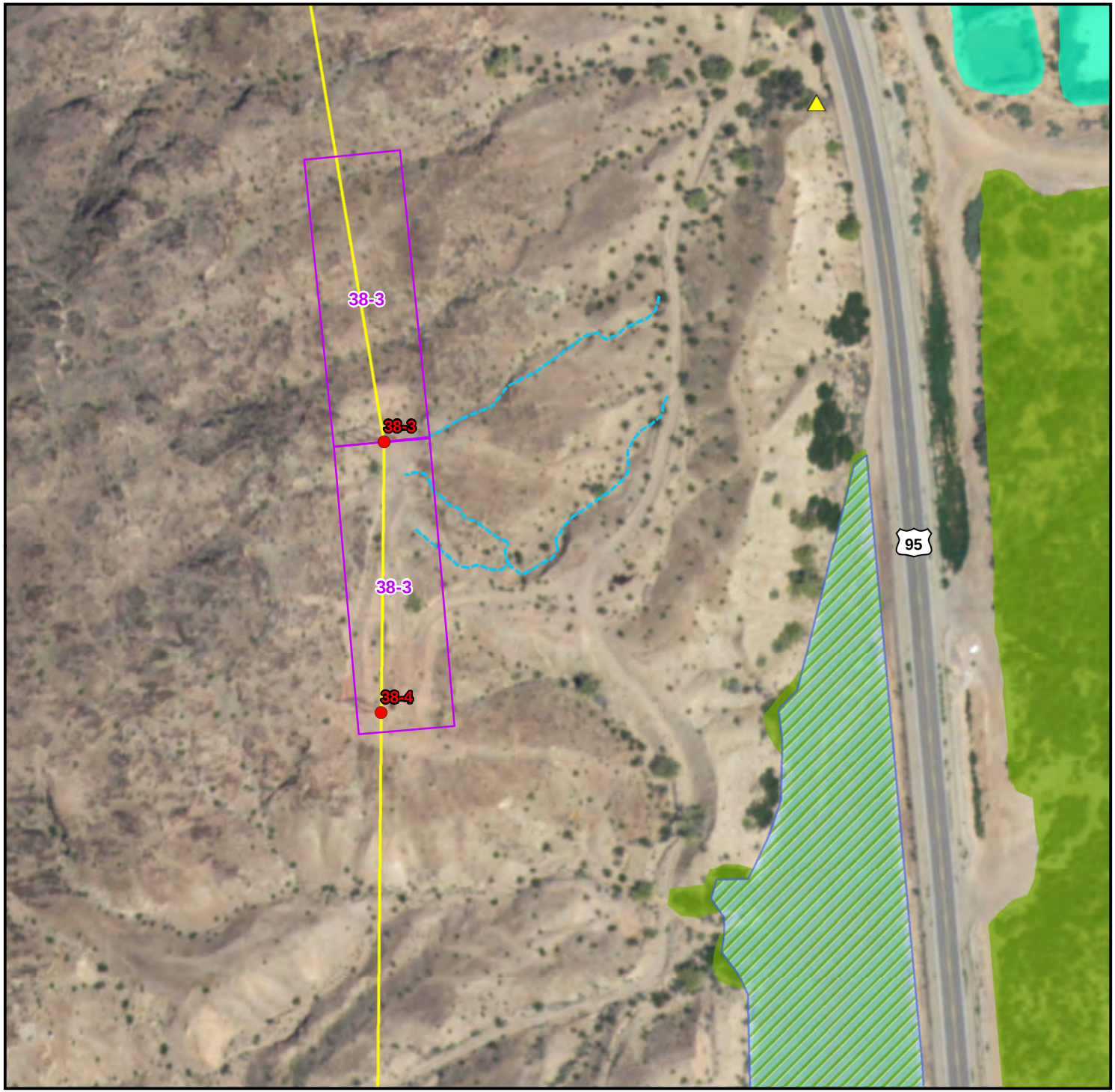

Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 38-3

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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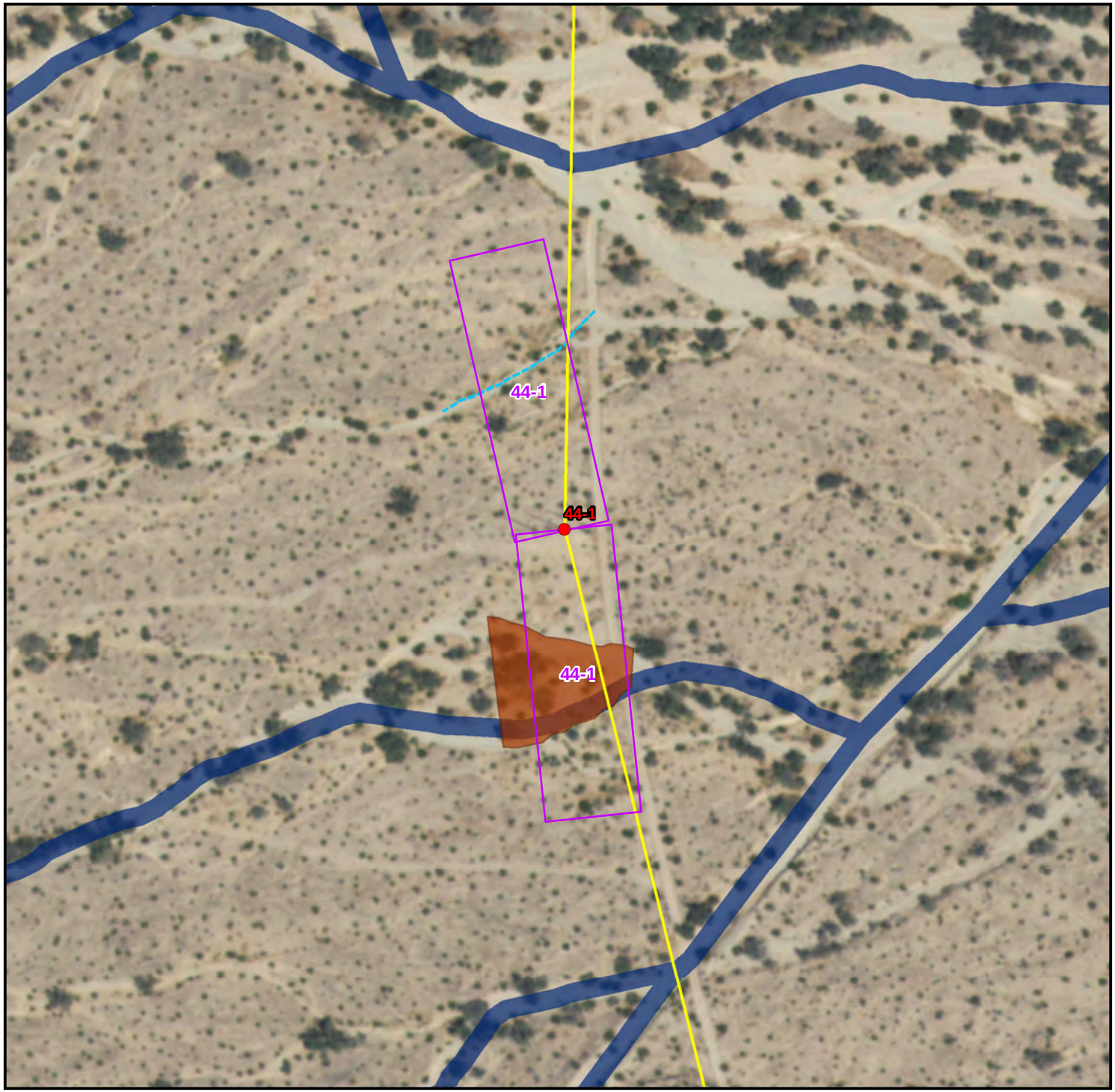

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 44-1

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 49-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 49-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 49-8

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 50-2

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 52-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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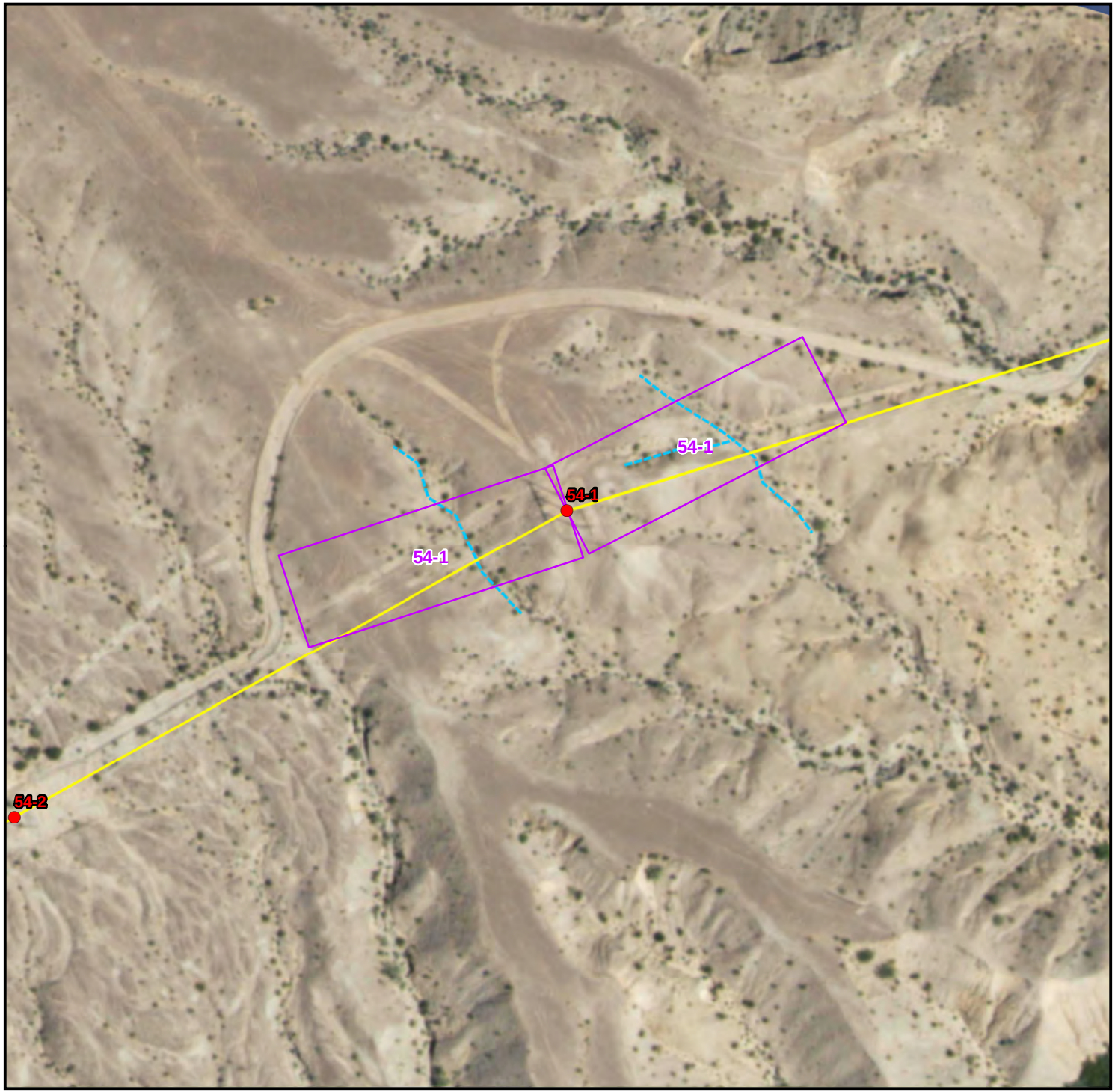

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 54-1

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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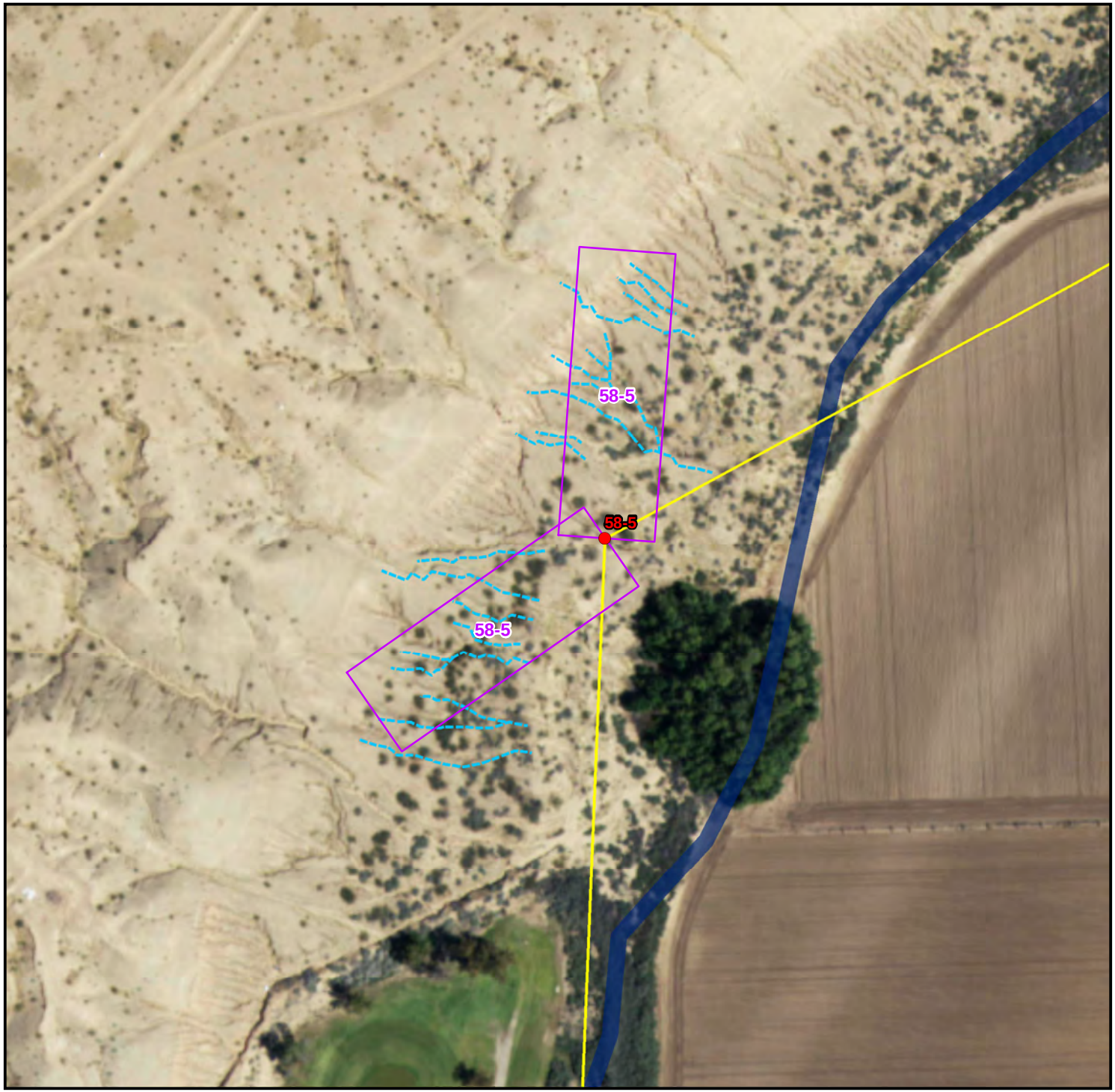

Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 58-5

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 59-2

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC
Jurisdictional Delineation Results
Pull Site: 59-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 64-2, 59-6

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 8

Vidal FOC

Jurisdictional Delineation Results

Pull Site: 64-4

- Structures
- Pull Sites
- Transmission Line

NWI

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Jurisdictional Delineation Results

- Bank to Bank
- Wetland Results

Non-Jurisdictional Features

- Erosional Feature
- Man-made Berm
- Culvert
- No Water Feature

N

0 75 150 300

Feet

Name: 21232 BIO Fig 8 Jurisdictional Delineation Results.Mxd
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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 13-6

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.07 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
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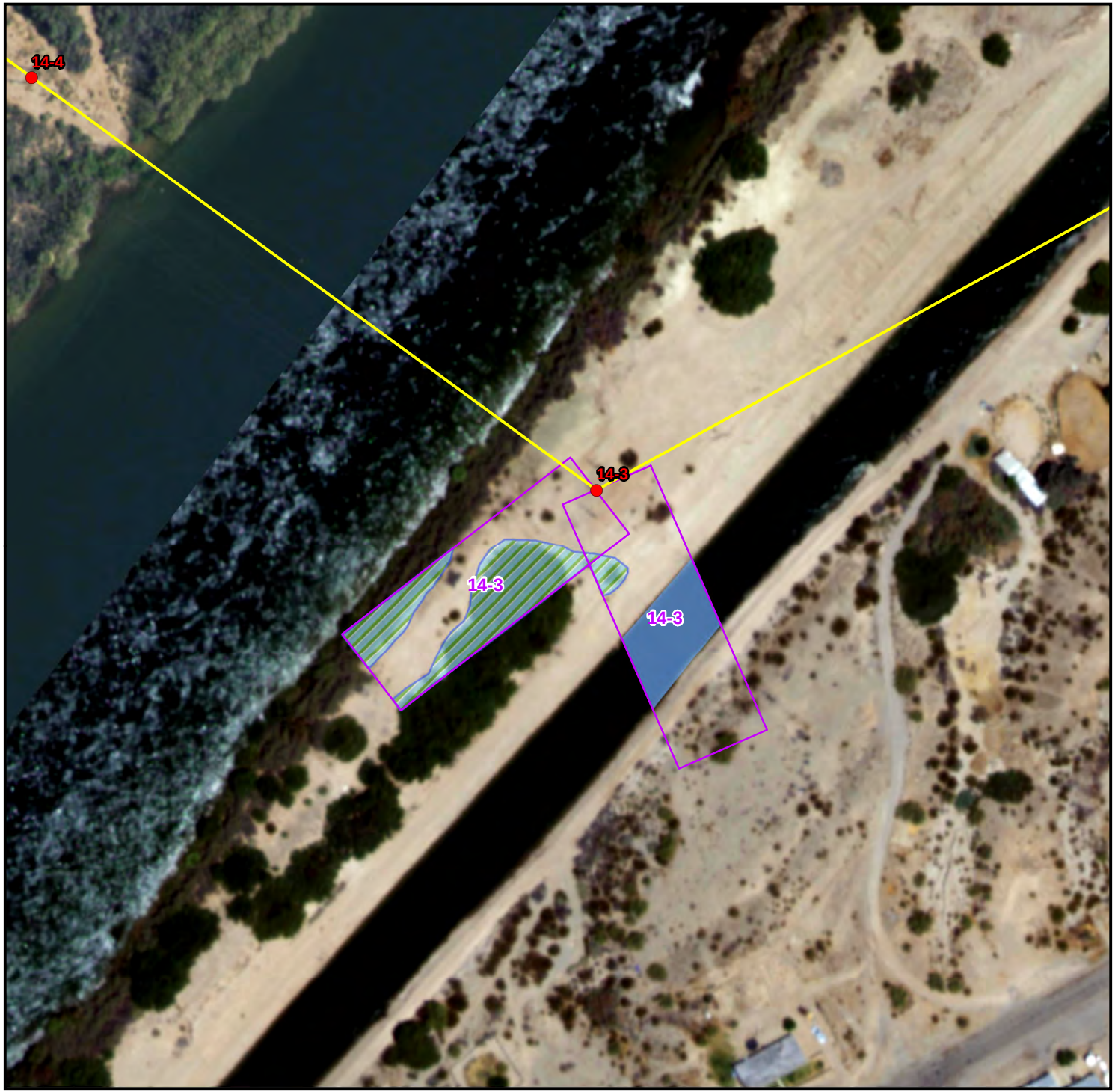

Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 14-3

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Open Water - 0.18 ac
- Wetland Results - 0.37 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 16-7

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Wetland Results - 0.60 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
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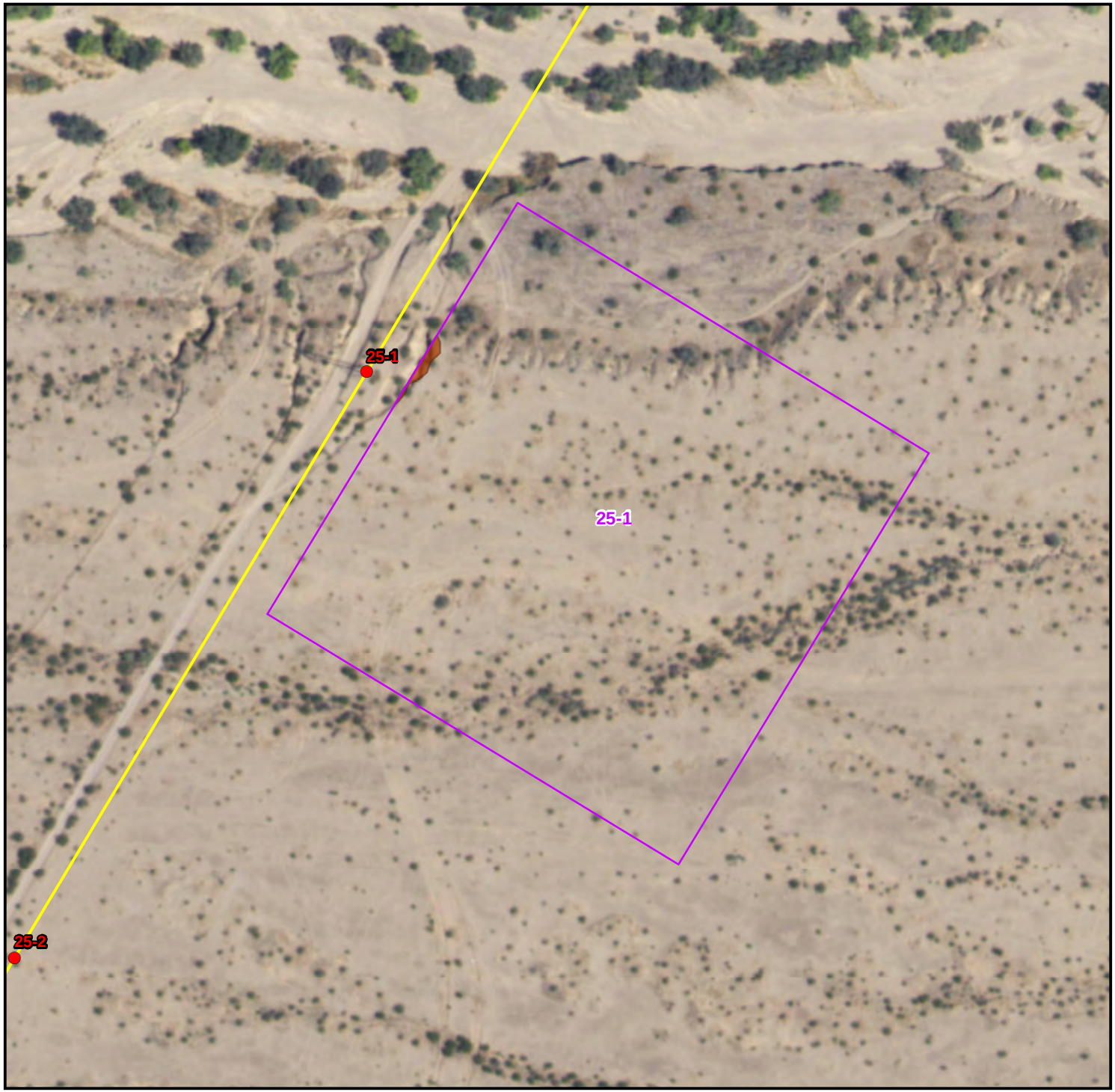

Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 25-1

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.01 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
Print Date: 7/7/2022 10:34:38 AM Author: pcarlos

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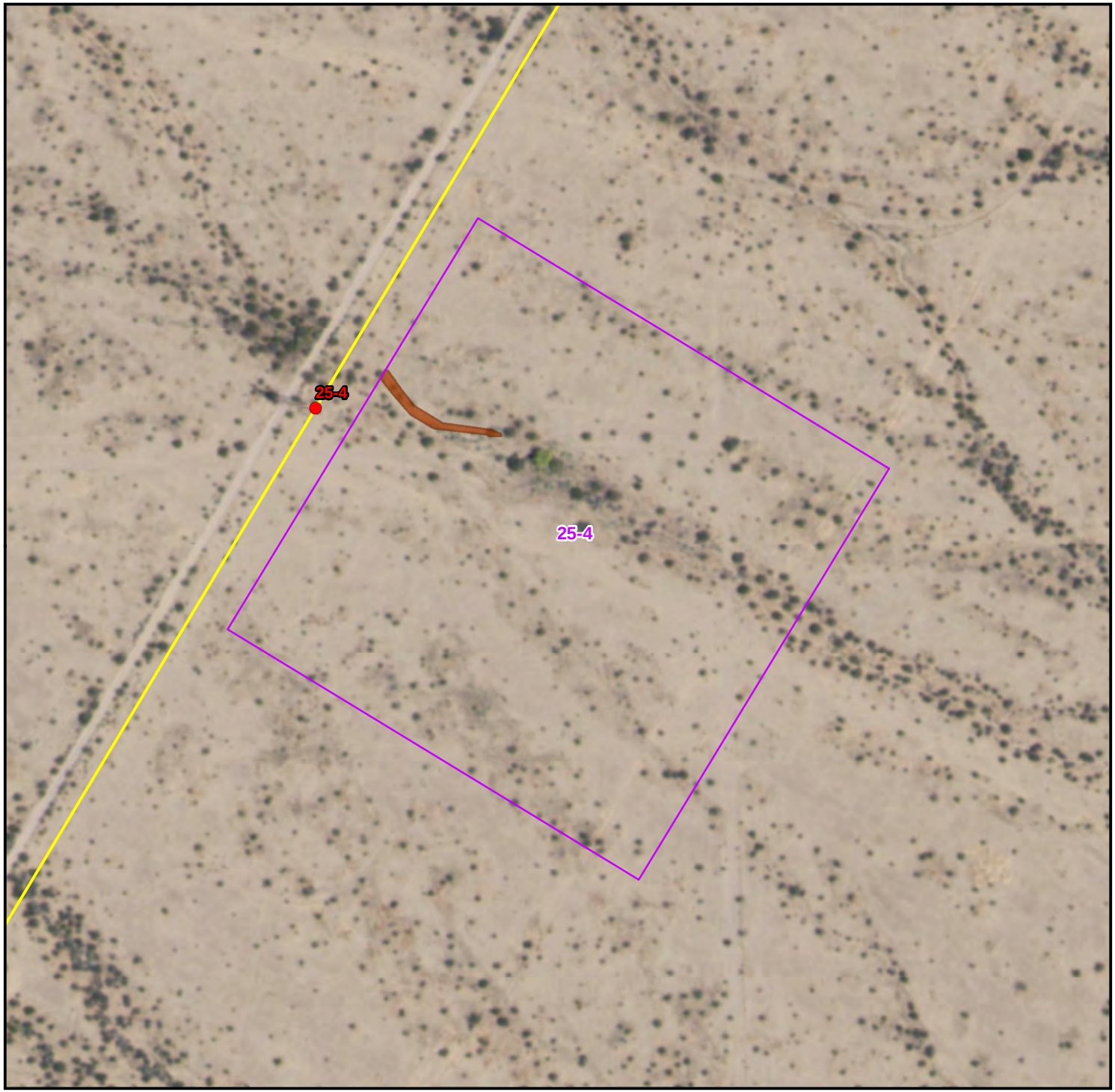

Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 25-4

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.03 ac

N

0 75 150 300

Feet

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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 31-3

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.36

N

0 75 150 300

Feet

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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 33-5

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.003 ac

N

0 75 150 300

Feet

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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 36-3

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.07 ac

N

0 75 150 300

Feet

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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 44-1

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Bank to Bank - 0.19 ac

N

0 75 150 300

Feet

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Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 49-4

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Wetland Results - 1.11 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
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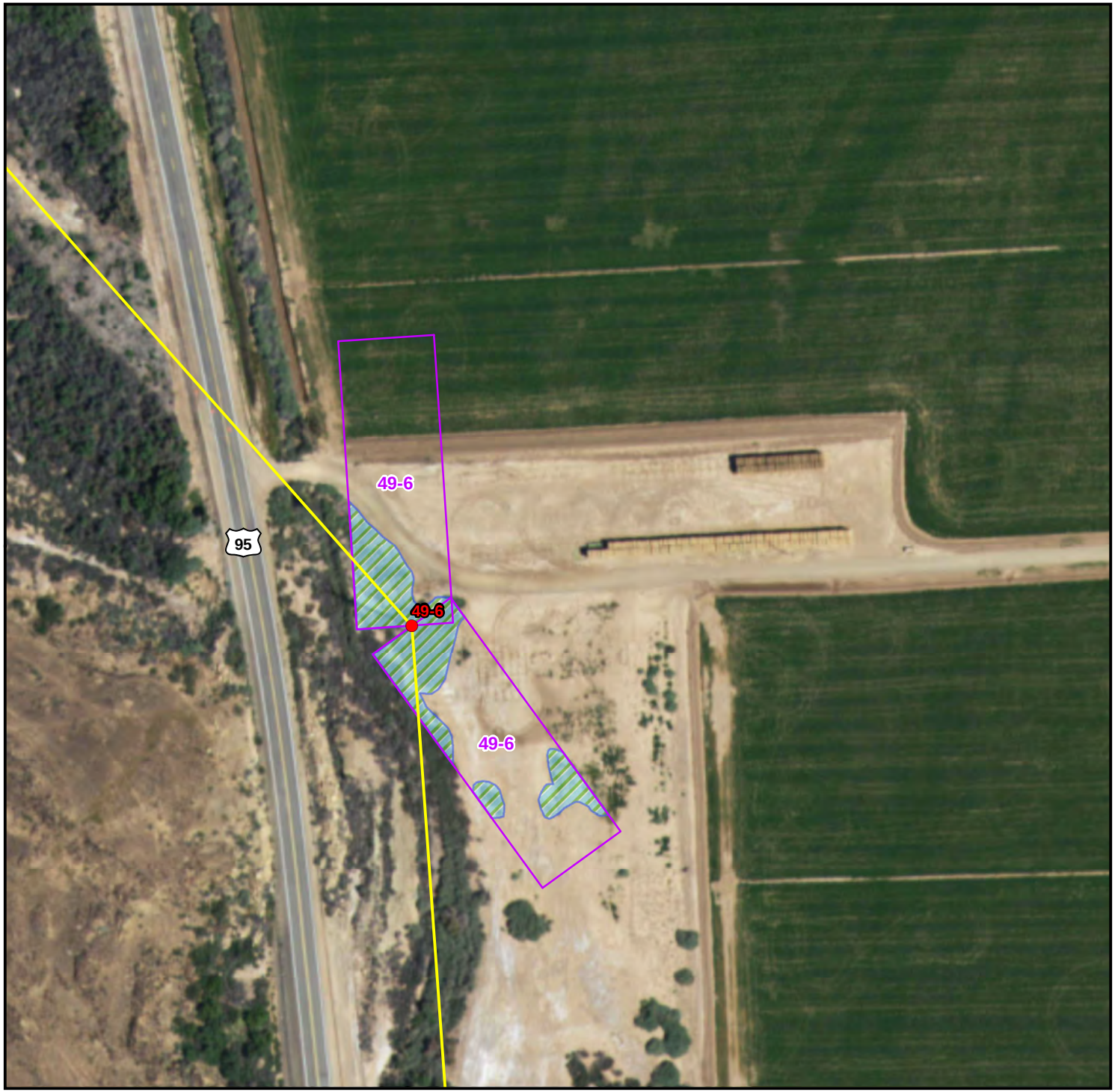

Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 49-6

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Wetland Results - 0.37 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
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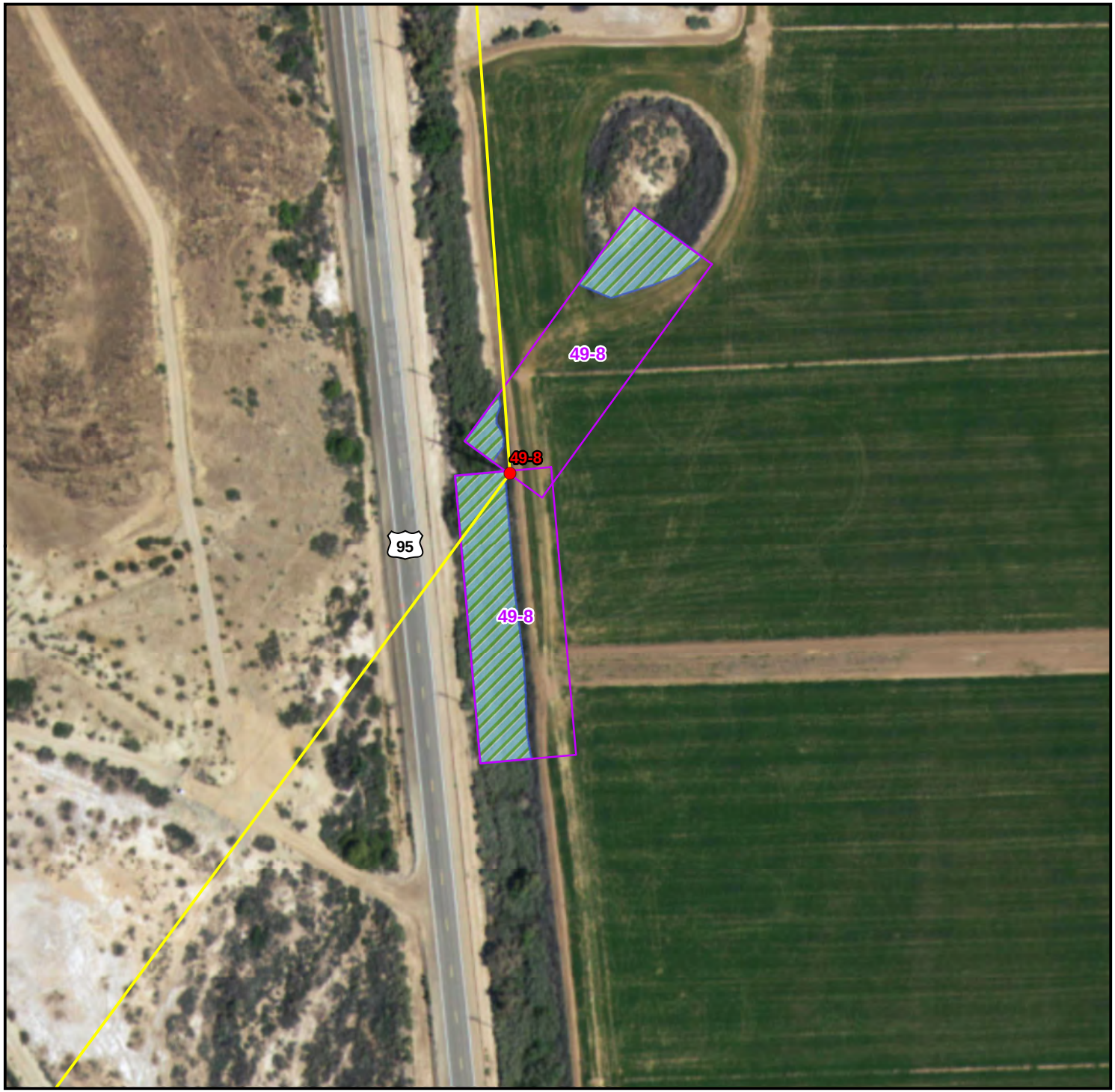

Figure 9

Vidal FOC

Impacts to Jurisdictional Waters

Pull Site: 49-8

- Structures
- Transmission Line
- Pull Sites

Impacts to Jurisdictional Waters

- Wetland Results - 0.53 ac

N

0 75 150 300

Feet

Name: 21232 BIO Fig 9 Impacts to Jurisdictional Waters.Mxd
Print Date: 7/7/2022 10:34:38 AM Author: pcarlos

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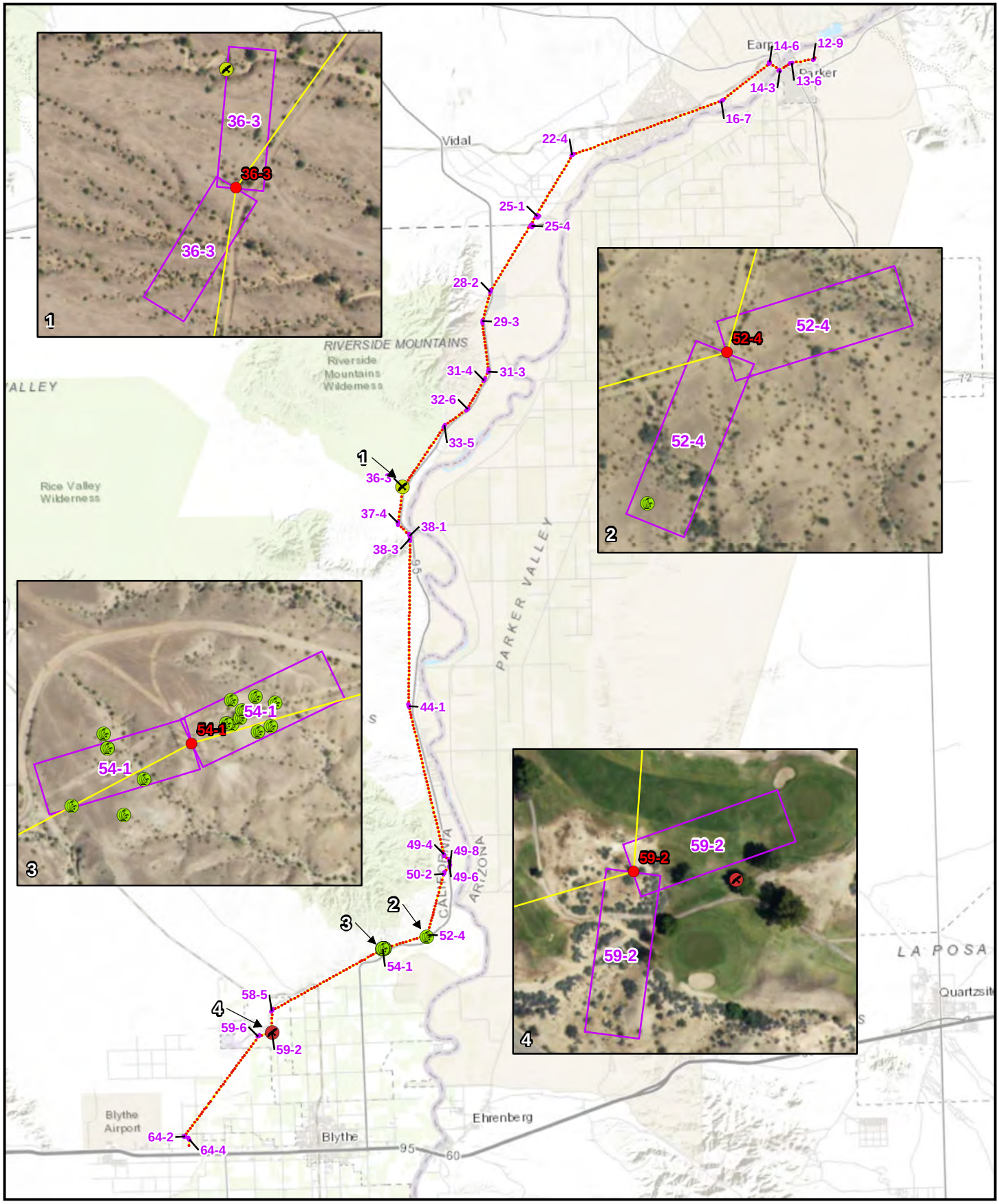

Structures Pull Sites

Transmission Line

Sensitive Species Results

- Brown-crested flycatcher
- Vermillion Flycatcher
- Alverson's foxtail cactus

N

0 1.5 3 6

Miles

Figure 10
Vidal Energy FOC
Sensitive Species Results

Name: 21232 BIO Fig 10 Sensitive Species Results.Mxd
Print Date: 7/6/2022, Author: pcarlos

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ATTACHMENT 2 – PLANT SPECIES OBSERVED

ATTACHMENT 2 – PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
*Schinus terebinthifolius**	Brazilian pepper tree
APOCYNACEAE	**DOGBANE FAMILY**
Asclepias subulata	rush milkweed, ajamete
ASTERACEAE	**SUNFLOWER FAMILY**
Ambrosia salsola var. *salsola*	cheesebush
Bebbia juncea var. *aspera*	sweetbush
Encelia farinosa	brittlebush
Peucephyllum schottii	pygmy-cedar
Pluchea sericea	arrow weed
Stephanomeria pauciflora	wire lettuce
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica tournefortii**	Sahara mustard
CACTACEAE	**CACTUS FAMILY**
Coryphantha alversonii	foxtail cactus
Cylindropuntia echinocarpa	golden cholla
Cylindropuntia ramosissima	pencil cholla
Ferocactus cylindraceus	California barrel cactus
Mammillaria tetrancistra	Yaqui mammillaria
Opuntia basilaris	beavertail cactus
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Allenrolfea occidentalis	iodine bush
Atriplex canescens	four-wing saltbush
Atriplex lentiformis	big saltbush
Atriplex polycarpa	allscale
Suaeda nigra	bush seepweed
FABACEAE	**LEGUME FAMILY**
*Medicago sativa**	alfalfa
Olneya tesota	ironwood
Parkinsonia florida	blue palo verde
Prosopis glandulosa var. *torreyana*	honey mesquite
Senegalia greggii	cat claw acacia
POLYGONACEAE	**BUCKWHEAT FAMILY**
Chorizanthe rigida	rigid spineflower
Eriogonum fasciculatum	California buckwheat
Eriogonum inflatum	desert trumpet
Eriogonum sp.	annual buckwheat

ATTACHMENT 2 – PLANT SPECIES OBSERVED

Scientific Name	Common Name
SOLANACEAE	**NIGHTSHADE FAMILY**
Datura wrightii	Jimsonweed
Lycium andersonii	Anderson's wolfberry
TAMARICACEAE	**TAMARISK FAMILY**
*Tamarix ramosissima**	Mediterranean tamarisk
VISCACEAE	**MISTLETOE FAMILY**
Phoradendron californicum	desert mistletoe
ZYGOPHYLLACEAE	**CALTROP FAMILY**
Larrea tridentata	creosote bush
ANGIOSPERMS (MONOCOTS)	
POACEAE	**GRASS FAMILY**
Hilaria rigida	big galleta
Leptochloa fusca subsp. *uninervia*	Mexican sprangletop
*Polypogon monspeliensis**	annual beard grass
*Schismus barbatus**	Mediterranean schismus

*Non-Native Species

ATTACHMENT 3 – WILDLIFE SPECIES OBSERVED/DETECTED

ATTACHMENT 3 – WILDLIFE SPECIES LIST

Scientific Name	Common Name
CLASS AVES	**BIRDS**
ARDEIDAE	**HERONS, BITTERNS**
Ardea herodias	great blue heron
Ardea alba	great egret
CATHARTIDAE	**NEW WORLD VULTURES**
Cathartes aura	turkey vulture
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Buteo jamaicensis	red-tailed hawk
FALCONIDAE	**FALCONS**
Falco sparverius	American kestrel
ODONTOPHORIDAE	**NEW WORLD QUAIL**
Callipepla gambelii	Gambel's quail
COLUMBIDAE	**PIGEONS & DOVES**
Zenaida asiatica	White-winged Dove
Zenaida macroura	mourning dove
CUCULIDAE	**CUCKOOS & ROADRUNNERS**
Geococcyx californianus	greater roadrunner
CAPRIMULGIDAE	**NIGHTHAWKS**
Chordeiles acutipennis	lesser nighthawk
TROCHILIDAE	**HUMMINGBIRDS**
Calypte costae	Costa's hummingbird
TYRANNIDAE	**TYRANT FLYCATCHERS**
Myiarchus tyrannulus	brown-crested flycatcher
Pyrocepalus rubins	vermilion flycatcher
Sayornis saya	Say's phoebe
HIRUNDINIDAE	**SWALLOWS**
Petrochelidon pyrrhonota	cliff swallow
CORVIDAE	**JAYS & CROWS**
Corvus corax	common raven
REMIZIDAE	**VERDINS**
Auriparus flaviceps	Verdin
TROGLODYTIDAE	**WRENS**
Catherpes mexicanus	canyon wren
POLIOPTILIDAE	**GNATCATCHERS**
Polioptila melanura	black-tailed gnatcatcher
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Mimus polyglottos	northern mockingbird
PARULIDAE	**WOOD WARBLERS**
Cardellina pusilla	Wilson's warbler

ICTERIDAE	**BLACKBIRDS**
Agelaius phoeniceus	red-winged blackbird
Quiscalus mexicanus	great-tailed grackle
EMBERIZIDAE	**EMBERIZIDS**
Amphispiza bilineata	black-throated sparrow
Pipilo chlorurus	green-tailed towhee
Zonotrichia leucophrys	white-crowned sparrow
FRINGILLIDAE	**FINCHES**
Haemorhous mexicanus	house finch
CLASS MAMMALIA	**MAMMALS**
LEPORIDAE	**HARES & RABBITS**
Lepus californicus	black-tailed jackrabbit
Lynx rufus	bobcat

ATTACHMENT 4 – SITE PHOTOGRAPHS

ATTACHMENT 4 - SITE PHOTOGRAPHS

Photo 1

Pull site 13-6 looking at ephemeral drainage near the eastern end of the site. This area can be avoided.

Photo 2

Pull site 14-3 bare ground area looking south. Wetland vegetation in area can be avoided.

Photo 3

Pull site 14-3, looking at Main Canal that can be avoided during pull site operations.

Photo 4

Pull site 16-7 looking southwest. Scattered Tamarisk Thickets and wetlands in area can be avoided.

Photo 5

Pull site 25-1 (staging area) has scattered creosote bushes. A small area of Blue Palo Verde – Ironwood Woodland and Mesquite Thickets can be avoided in the northern area of the site.

Photo 6

Pull site 25-4 (staging area) has scattered creosote bushes. A small area of Blue Palo Verde – Ironwood Woodland can be avoided in the central area of the site.

Photo 7

Pull site 31-3 looking at the ephemeral drainage with Blue Palo Verde – Ironwood Woodland vegetation that can be avoided.

Photo 8

Pull site 31-3 looking south within pull site.

Photo 9

Pull site 36-3 looking from the Blue Palo Verde – Ironwood Woodland within a drainage from the northern portion of the site. This area can be avoided.

Photo 10

Pull site 36-3 looking at erosional areas due to topography in the area.

Photo 11

Pull site 44-1 looking at a portion of the braided wash that can be avoided.

Photo 12

Pull site 49-4 showing access road and bare ground area through Tamarisk Thickets and Arrow Weed Thickets that can be avoided.

Photo 13

Pull site 49-6 looking at bare ground areas. Wetland areas can be avoided in this area.

Photo 14

Pull site 49-8 showing bare ground areas near Arrow Weed Thickets that can be avoided.

Photo 15

Pull site 49-8 looking at bare ground areas and agricultural areas that can be used during operations. The mound in the background is no longer a NWI Open Water area.

Photo 16

Pull site 54-1 showing Creosote Scrub and topography in the area. Alverson's foxtail cactus was found in several locations within this pull site. These cacti should be flagged for avoidance.

Photo 17

Pull site 64-2 looking at historic NWI freshwater pond that is no longer in area due to human disturbance and agriculture practices.

Photo 18

Pull site 64-4 looking at historical NWI on right side of photo that is no longer present. The NWI is an access road for agricultural practices.