

Photo 5: Southeast portion of Dolan Ditch project site facing northwest on March 14, 2023.

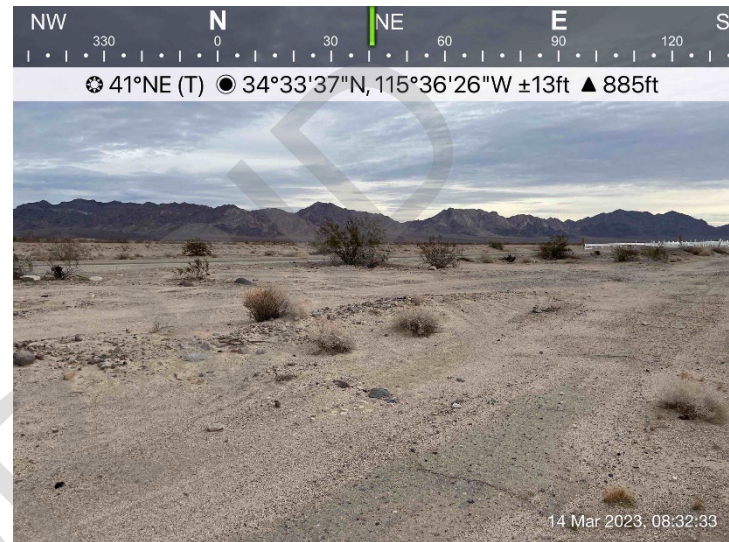


Photo 6: Southwest portion of Dolan Ditch project site facing northeast on March 14, 2023.



Photo 7: Downstream view of Lanzit Ditch Bridge, facing south on March 14, 2023.



Photo 8: Upstream view of Lanzit Ditch Bridge, facing north on March 14, 2023.



Photo 9: Potential desert tortoise burrow located on side of National Trails Highway east of Lanzit Ditch Bridge, on March 14, 2023.



Photo 10: Upstream view of Lanzit Ditch, facing south on March 14, 2023.



Photo 11: Creosote bush scrub in northwest portion of Lanzit Ditch Bridge project site, facing east on March 14, 2023.

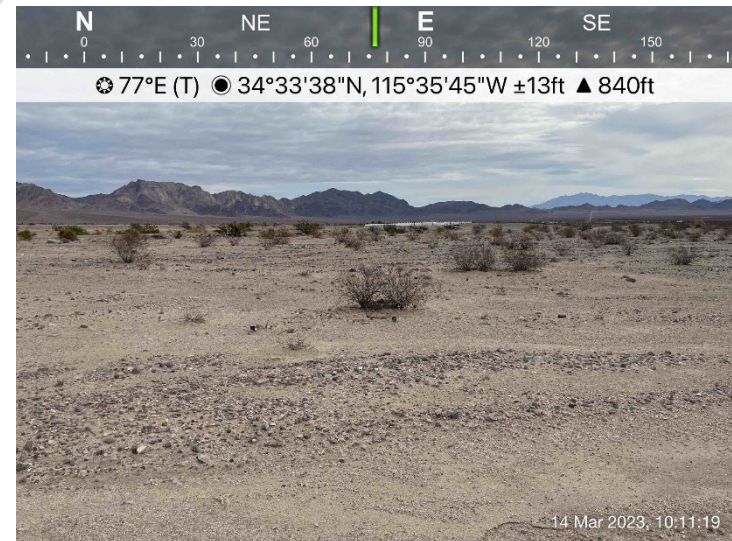


Photo 12: Creosote bush scrub in southwest portion of Lanzit Ditch Bridge project site, facing east on March 14, 2023.

# **Appendix C**

---

## Aquatic Resources Delineation Report

NOT FOR PUBLICATION

# **AQUATIC RESOURCES DELINEATION REPORT**

## **Dola Ditch Bridge and Lanzit Ditch Bridge Replacement Project**

---

**Prepared for:**



San Bernardino County  
Department of Public Works  
825 East Third Street  
San Bernardino, CA 92415

**Prepared by:**

Aspen Environmental Group  
615 N. Benson Avenue, Suite E  
Upland, CA 91786



**July 2023**

**Aquatic Resources Delineation Report**  
**Dola Ditch Bridge and Lanzit Ditch Bridge Replacement Project**  
**San Bernardino County, California**

The undersigned certify that this report is a complete and accurate account of the findings and conclusions of a jurisdictional determination and delineation for the above-referenced project.

---

**Justin M. Wood, M.S.**  
**Senior Biologist**  
**Aspen Environmental Group**

**July 2023**

## Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>5</b>
1.1	Lead Agency Name and Address.....	5
1.2	Contact Person and Phone Number .....	5
1.3	Site Access.....	5
<b>2.0</b>	<b>Project and Property Description .....</b>	<b>2</b>
2.1	Project Description .....	2
2.2	Project Location .....	2
<b>3.0</b>	<b>Existing Conditions .....</b>	<b>2</b>
3.1	Topography and Surrounding Land Use .....	2
3.2	Vegetation.....	2
3.3	Climate .....	4
3.4	Hydrology.....	4
3.5	Soils and Geology.....	4
<b>4.0</b>	<b>Regulatory Background.....</b>	<b>5</b>
4.1	Section 404 of the Clean Water Act.....	5
4.2	Porter Cologne Water Quality Control Act and Section 401 of the Clean Water Act.....	6
4.3	Section 1602 of the California Fish and Game Code.....	7
<b>5.0</b>	<b>Waters and Wetlands Delineation Methodology .....</b>	<b>7</b>
5.1	Wetland Waters of the U.S. ....	8
5.2	Non-wetland Waters of the U.S.....	8
5.3	RWQCB Waters of the State .....	8
5.4	CDFW Jurisdictional Waters.....	8
<b>6.0</b>	<b>Results.....</b>	<b>8</b>
6.1	Wetland Waters of the U.S. ....	9
6.2	Non-wetland Waters of the U.S.....	9
6.3	RWQCB Waters of the State .....	9
6.4	CDFW Jurisdictional Waters.....	9
<b>7.0</b>	<b>Summary and Conclusions .....</b>	<b>10</b>
<b>8.0.</b>	<b>Literature Cited .....</b>	<b>11</b>

## Tables

Table 1:	Driving Directions to the Project site .....	1
Table 2:	Vegetation and Other Cover Types on the Project Site .....	3
Table 3:	Soil Units Occurring in the Project Site .....	4
Table 4:	Jurisdictional Waters and Wetlands within the Project Site.....	8

## Attachments

### Attachment 1: Figures

Figure 1: Project Overview

Figure 2a: Dola Ditch Bridge Replacement Vegetation and Land Cover

Figure 2b: Lanzit Ditch Bridge Replacement Vegetation and Land Cover

Figure 3a: Dola Ditch Bridge Replacement Soils

Figure 3b: Lanzit Ditch Bridge Replacement

Figure 4a: Dola Ditch Bridge Replacement Jurisdictional Resources

Figure 4b: Lanzit Ditch Bridge Replacement

### Attachment 2: Photo Exhibit

Attachment 3. Federal Waters of the U.S. Indicator Information

Attachment 4. Observed Plant Species List and Wetland Indicator Status

NOT FOR BID

## **1.0 Introduction**

This report was prepared by Aspen Environmental Group (Aspen) to describe the aquatic resources at the Dola Ditch and Lanzit Ditch Bridge Replacement Project (project). The project, proposed by the San Bernardino County Department of Public Works (County), is located along California U.S. Highway 66/National Trails Highway (CA Highway 66/NTH) in the unincorporated community of Amboy in San Bernardino County California. The County proposes to replace the existing timber trestle bridges, known as the Dola Ditch Bridge (County Local Bridge No. 81, California Department of Transportation (Caltrans) Bridge No. 54C0285), and Lanzit Ditch Bridge (County Local Bridge No. 82, Caltrans Bridge No. 54C0285) with concrete bridges to improve public safety and provide a reliable route for access throughout the eastern and central portion of the High Desert. Throughout this report, “project” refers to the proposed bridge replacement sites, while “project site” refers to all areas that may be directly or indirectly impacted by project activities as well as a larger survey area that encompasses the bridges. This report provides preliminary data on the extent of resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

### **1.1 Lead Agency Name and Address**

San Bernardino County Department of Public Works  
825 East Third Street  
San Bernardino, CA 92415

### **1.2 Contact Person and Phone Number**

AJ Gerber  
Environmental Management Division, Senior Planner  
Phone: (909) 387-1865  
Email: [Arnold.Gerber@dpw.sbcounty.gov](mailto:Arnold.Gerber@dpw.sbcounty.gov)

### **1.3 Site Access**

Driving directions to the project site are provided below in Table 1.

---

**Table 1. Driving Directions to the Project Site**

---

#### **From Needles, CA**

---

Take I-40 W towards Barstow  
Exit I-40 E at Kelbaker Road  
Continue on Kelbaker Road until it ends at National Trails Highway (Old Route 66)  
Turn left onto National Trails Highway  
Travel approximately 2.0 miles to reach Dola Ditch and approximately 2.75 miles to reach Lanzit Ditch.

---

#### **From Los Angeles, CA**

---

Take I-210 E towards San Bernardino  
Merge onto I-15 N towards Barstow  
Merge onto I-40 E towards Needles  
Exit I-40 E at Kelbaker Road  
Continue on Kelbaker Road until it ends at National Trails Highway (Old Route 66)  
Turn left onto National Trails Highway  
Travel approximately 2.0 miles to reach Dola Ditch and approximately 2.75 miles to reach Lanzit Ditch.

---

## 2.0 Project and Property Description

### 2.1 Project Description

The project would replace the existing and structurally deficient 1930/1931 timber bridges with a new, engineered, American Association of State Highway and Transportation Officials approved, and prefabricated timber trestle “kit” bridge. The permanent footprint of the Project includes all areas that would be permanently altered, including activities such as excavation and fill placement. Attachment 1, Figure 1 indicates areas of permanent and temporary impacts, based on construction and earthwork. Permanent impacts would include the length and width of the new bridge and substructure, as well as the proposed approach and departure guardrail system, and areas to be re-contoured during construction. Temporary impacts would be those that occur during construction such as impacts to soil and vegetation for equipment access alongside the bridge.

### 2.2 Project Location

The project site is located along CA Highway 66/NTH, commonly known as Route 66, eight miles east of Amboy, San Bernardino County, California (Attachment 1, Figure 1). The project site is located in Section 35, Township 6 North, Range 13 East (USGS Cadiz, CA 7.5-minute quadrangle). Topography in the project site is generally flat to very mildly sloping from north to south; elevations range from approximately 840 feet above mean sea level (AMSL) to the north, down to 815 feet AMSL to the south.

## 3.0 Existing Conditions

### 3.1 Topography and Surrounding Land Use

Topography in the Project area ranges from flat to gently sloping terrain, with occasional dry desert washes; the Project location is in a valley south of the Bristol and Marble Mountains and northeast of Bristol Dry Lake. Land uses in the Project vicinity are limited to publicly owned natural open space managed by the Bureau of Land Management (BLM). The project sites are within the County right of way on BLM lands.

### 3.2 Vegetation

Vegetation mapping was done by drawing tentative boundaries onto high-resolution aerial images during a site visit on June 9, 2014 and these boundaries were verified during a site visit on March 14, 2023. These boundaries were then digitized into Geographic Information System (GIS) shapefiles and figures were then created (see Attachment 1, Figures 2a and 2b). Vegetation within the project site is further described below using the names and descriptions in *A Manual of California Vegetation* (Sawyer et al., 2009) where applicable. Vegetation was mapped digitally using ArcGIS (version 10.7) and one-foot pixel aerial imagery.

The smallest mapping unit was approximately 0.05-acre and most mapped vegetation boundaries are accurate to within approximately 5-ft. Any vegetation map is subject to imprecision for several reasons:

1. Vegetation types tend to intergrade on the landscape so that there are no true boundaries in the vegetation itself. In these cases, a mapped boundary represents best professional judgment.
2. Vegetation types as they are named and described tend to intergrade; that is, a given stand of real-world vegetation may not fit into any named type in the classification scheme used. Thus, a mapped and labeled polygon is given the best name available in the classification, but this name does not imply that the vegetation unambiguously matches its mapped name.
3. Vegetation tends to be patchy. Small patches of one named type are often included within mapped polygons of another type. The size of these patches varies, depending on the minimum mapping units and scale of available aerial imagery.

Vegetation within the project site consists of upland vegetation and sparsely vegetated drainages. No riparian vegetation is present within the project site. All vegetation and land cover types are described in detail below, and acreages are presented in Table 1 and shown in Figures 2a and 2b (Attachment 1).

**Table 2. Vegetation and Other Cover Types on the Project Site (acres)**

Vegetation Type	Dola Ditch (Acres)		Lanzit Ditch (Acres)	
	Permanent Impacts	Temporary Impacts	Permanent Impacts	Temporary Impacts
Creosote Bush Scrub	0.00	0.10	0.03	0.40
<b>Other Cover Types</b>				
Non-Vegetated Channel	0.05	0.15	0.03	0.31
Developed/Disturbed	0.13	1.09	0.06	0.91
<b>Total</b>	<b>0.18</b>	<b>1.34</b>	<b>0.12</b>	<b>1.62</b>

### Vegetation Types

**Creosote Bush Scrub.** Creosote bush scrub is a sparsely vegetated community, dominated by creosote bush (*Larrea tridentata*) with a sub-dominance of white bursage (*Ambrosia dumosa*). Other shrubs present within this community include cheesebush (*Hymenocloa salsola*), Nevada ephedra (*Ephedra nevadensis*), and widely scattered shrubs and herbs. Creosote bush scrub is the dominant vegetation within and well beyond the boundary of the project site. Native and non-native grasses and forbs occur as seasonal groundcovers, including narrow-leaved johnstonella (*Johnstonella angustifolia*) and rattlesnake sandmat (*Euphorbia albomarginata*). Creosote bush scrub has a State rank of S5 and is therefore not recognized as a sensitive natural community by CDFW (CDFW, 2023c).

**Sparsely vegetated wash.** Dola Ditch and Lanzit Ditch are characterized by alluvial sands and generally not vegetated due to periodic sand deposition and scouring. Drainages on the north side of National Trails Highway merge together into Dola Ditch and Lanzit Ditch because of earthen berms and dikes that direct water flows into one primary channel before flowing below the bridges and continuing southward. Sparsely vegetated wash is not a vegetation type and is therefore not described in *A Manual of California Vegetation* and is also not recognized as a sensitive natural community by CDFW (CDFW, 2023c).

### Other Cover Types

**Developed or disturbed.** This cover type includes all disturbed and developed areas within the project site including off-road vehicle roads that parallel the highway, earthen berms, dikes, paved roadways,

compacted road shoulders and the bridge, and spoil piles that remain onsite from channel maintenance activities. Developed or Disturbed is not a vegetation type and is therefore not described in *A Manual of California Vegetation* and is also not recognized as a sensitive natural community by CDFW (CDFW, 2023c).

### 3.3 Climate

Climate in the region is temperate, with mild winters and hot, dry summers. Average temperatures near the project site in Daggett, California roughly 70 miles to the west include an average low temperature of 53 degrees Fahrenheit and an average high temperature of 81 degrees Fahrenheit (U.S. Climate Data, 2023). Rainfall is greatest during the months of December through March, with an average annual precipitation total of 4.06 inches (U.S. Climate Data, 2023). Monsoonal storms also frequently move through the region in July and occasionally August.

### 3.4 Hydrology

Surface flows in the project sites include ephemeral stream flows from both Dola and Lanzit Ditches. These streambeds receive flows from several mountain ranges to the north, northwest, and northeast of the project sites including the Granite Mountains, Bristol Mountains, and Marble Mountains. Once flows pass through the project site, they continue south to the valley floor and eventually Bristol Dry lake. The Bristol Watershed is a closed drainage system with no downstream connectivity. Surface flows through the project site are infrequent and rely entirely on heavy winter storms and periodic summer monsoons. The project site is mapped in the National Wetland Inventory as riverine habitat and is classified as R4SBJ (USFWS 2023).

### 3.5 Soils and Geology

#### 3.5.1 Soils

Soil data from the Natural Resources Conservation Service (NRCS) historic mapping projects were used to determine if and where hydric soils could be present in the Project area (NRCS, 2023). Figures 3a and 3b (Attachment 1) illustrate the location of these mapped soil types in relation to the Project area. Refer to Table 3 for a brief description of the soils within the Project area. The lone soil type mapped in the Project area (map unit symbol s1137) is described as excessively drained or somewhat excessively drained. In general, the description of soil type within the Project area indicates that hydric soils conditions are not expected. It is possible that the mapped soils below may include small pockets of other soil types that were not captured within the NRCS mapping scale but that were assessed as part of the field work.

**Table 3. Soil Units Occurring in the Project Site (acres)**

Map Unit Symbol	Map Unit Name	Hydric Soil (Yes or No)	Dola Ditch (Acres)	Lanzit Ditch (Acres)
s1137	Rositas-Carizo	No	1.51	1.74
<b>Total:</b>			<b>1.51</b>	<b>1.74</b>

**Rositas-Carizo.** Rositas-Carizo is generally found in dunes and sand sheets or floodplains and alluvial fans; typical soil profile consists of fine sand to a depth of 60 inches or extremely gravelly sand over stratified extremely gravelly coarse sand to very gravelly coarse sand.

### 3.5.2 Geology

The project site is located on an extensive alluvial fan below the Granite, Bristol, and Marble Mountains. They mountains in the region are composed of a mixture of different rock types including metasedimentary marble, siliceous marble, dolomite marble, calcsilicate hornfels, igneous dikes, monzonite, granodiorite, volcanic rocks, and coarse sedimentary debris to name a few. All of these rock types are contributing to the alluvium in the region, such as that present within the project site. Several Late Tertiary and Quaternary faults are common throughout the region (CDWR, 2004).

## 4.0 Regulatory Background

Jurisdictional waters, including some wetlands and riparian habitats, are regulated by the USACE, the Regional Water Quality Control Board (RWQCB), and CDFW. The USACE Regulatory Program regulates activities pursuant to Section 404 of the federal Clean Water Act (33 U.S.C. 1344; CWA); the CDFW regulates activities under the Fish and Game Code Section 1600-1607; and the RWQCB regulates activities under Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

### 4.1 Section 404 of the Clean Water Act

Section 404 of the CWA regulates the discharge of dredged material, placement of fill material, or certain types of excavation within “waters of the U.S.” (resulting in more than incidental fallback of material) and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. Permits can be issued for individual projects (individual permits) or for general categories of projects (general permits). “Waters of the U.S.” are defined by the CWA as “rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands.” Wetlands are defined by the CWA as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.” USACE has adopted several revisions to their regulations to more clearly define “waters of the U.S.” Until the beginning of 2001, “waters of the U.S.” included, among other things, isolated wetlands and lakes, intermittent streams, prairie potholes, and other waters that are not part of a tributary system to interstate waters or to navigable “waters of the U.S.”

The jurisdictional extent of USACE regulation changed with the 2001 SWANCC (Solid Waste Agency of Northern Cook County) ruling. The U.S. Supreme Court held that the USACE could not apply Section 404 of the CWA to extend their jurisdiction over an isolated quarry pit. The Court ruled that the CWA does not extend Federal regulatory jurisdiction over non-navigable, isolated, intra-state waters. However, the Court made it clear that non-navigable wetlands adjacent to navigable waters are still subject to USACE jurisdiction.

In 2020, the U.S. Environmental Protection Agency (EPA) updated the CWA and their definition of navigable waters (USACE and EPA, 2020). The Navigable Waters Protection Rule regulates the nation’s navigable waters and the core tributary systems that provide perennial or intermittent flows into these systems. As such, “waters of the U.S.” encompass traditional navigable waters; perennial and intermittent tributaries that contribute surface water flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters. Based on this ruling, ephemeral waters were not mapped as “waters of the U.S.” In 2021, the EPA and USACE were directed by the Biden Administration and the U.S. District Court to vacate the 2020 Navigable Waters Protection Rule and revert to the pre-2020 rule. This revision of the waters of the U.S. rule meant that ephemeral drainages were once again being treated as waters of the U.S.

On April 6, 2022, the U.S. Supreme Court issued a stay of the 2021 order by the U.S. District Court for the Northern District of California that vacated the EPA's 2020 Clean Water Act Section 401 Certification Rule. Therefore, the CWA section 401 certification process is once again governed by the CWA section 401 certification regulations promulgated by EPA in 2020 (40 CFR 121). On June 1, 2022, the EPA Administrator signed a proposed rule to improve the CWA section 401 certification process. The proposed rule would replace and update the existing regulations at 40 CFR 121, to be more consistent with the statutory text of the 1972 CWA and clarify elements of section 401 certification practice that has evolved over the 50 years since the 1971 regulation was promulgated. On June 9, 2022, the proposed rule was published in the Federal Register (EPA, 2022).

On December 30, 2022, the EPA and the USACE announced the final "Revised Definition of 'Waters of the United States'" rule. The Revised Definition of 'Waters of the United States' (2023 Rule) was published in the Federal Register on January 18, 2023 and took effect on March 20, 2023. On May 25, 2023, the U.S. Supreme Court's issued a decision in the case of Sackett v. Environmental Protection Agency. Considering this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett. The Sackett decision states that "waters" as used in the Clean Water Act's defined "waters of the United States" "refers only to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection." The revised waters rule (incorporating the Sackett decision) is expected to come out in September 2023 and at that time ephemeral drainages and isolated drainages, will once again be excluded from Waters of the U.S. Based on a high degree of uncertainty and on-going changes in policy, ephemeral drainages with a defined OHWM are treated as jurisdictional Waters of the U.S. in this report.

## 4.2 Porter Cologne Water Quality Control Act and Section 401 of the Clean Water Act

The RWQCBs regulate activities affecting 'waters of the State' according to the Porter-Cologne Water Quality Control Act and Section 401 of the federal CWA. The Porter-Cologne Act defines waters of the State as all surface and subsurface waters. The RWQCBs may issue permits (called Waste Discharge Requirements or WDRs) or may issue a waiver for a given application. In addition, the RWQCB recently started to implement a new regulatory program for all waters of the State. For non-wetland waters of the state, CWRCB procedures and guidelines recognize the ordinary high-water mark (OHWM) as defined by federal guidelines ((SWRCB, 2022; see also USACE, 2008)) as the limits of jurisdiction. However, waters of the State include isolated waters and need not have downstream surface connection to federally jurisdictional waters. The new program uses the soils, hydrology, and vegetation criteria to identify wetlands, but may define certain unvegetated sites (e.g., mud flats or playas) as wetlands based on only the soils and hydrology criteria. The project site is within the jurisdictional boundaries of the Santa Ana RWQCB.

Section 401 of the CWA requires that:

*...any applicant for a Federal permit for activities that involve a discharge to "waters of the State," shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.*

Therefore, before the USACE may issue a Section 404 permit, a permittee must apply for and receive a Section 401 Water Quality Certification from the RQWCB, Santa Ana Region. The RQWCB may add conditions to their certification to remove or mitigate potential impacts to water quality standards.

On April 2, 2019, the State Water Resources Control Board (State Water Board) adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The adopted definitions and procedure allow for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland. Waters of the State are typically delineated based on the OHWM in the field.

### **4.3 Section 1602 of the California Fish and Game Code**

Section 1602 of the California Fish and Game Code requires any person, State or local governmental agency, or public utility which proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or use materials from a streambed, or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, to first notify the CDFW of the proposed project. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. Based on the notification materials submitted, the CDFW will determine if the proposed project may impact fish or wildlife resources.

If the CDFW determines that a proposed project may substantially adversely affect existing fish or wildlife resources, a Lake or Streambed Alteration Agreement (SAA) will be required. A completed California Environmental Quality Act (CEQA) document must be submitted to CDFW before a SAA will be issued.

## **5.0 Waters and Wetlands Delineation Methodology**

The assessment of jurisdictional wetlands, waters of the United States (U.S.), waters of the State, and other jurisdictional habitats was originally conducted by Aspen biologist Jared Varonin on June 9, 2014. An updated assessment was conducted by Aspen biologist Nikolai Starzak on March 14, 2023. Prior to conducting the updated field assessment, Aspen biologist Justin Wood reviewed current and historic aerial photographs, the San Bernardino County Soil Survey (NRCS, 2023), and the local and state hydric soil list (NRCS, 2023) to evaluate the potential active channels and wetland features in the project site. Wood also reviewed the National Wetland Inventory (USFWS, 2023) and the 2016 wetland plant ratings in the National Wetland Plant List (Lichvar et al., 2016).

Site maps were generated with available aerial photographs and potentially jurisdictional features were identified and marked with lines and global positioning system (GPS) coordinates to assist in field verification. During the field assessment, vegetation and hydrology were mapped using an Arrow GPS unit and identified on aerial photographs (Figures 4a and 4b, Attachment 1). Field maps were digitized using Geographic Information System (GIS) and total state and federal jurisdictional areas were calculated. Representative site photos were captured during the survey and are included in this report (see Attachment 2).

## 5.1 Wetland Waters of the U.S.

Federal wetlands were delineated using the USACE Wetland Delineation Manual (1987) and the Arid West Supplement (2008) based on three wetland parameters: hydrophytic vegetation, wetland hydrology, and hydric soils (USACE, 1987, 2008). The project site is located in an extremely arid climate with well drained soils which do not provide suitable conditions for wetland formations. Wetland data forms were not completed because of the unfavorable conditions and lack of downstream connectivity to TNW.

## 5.2 Non-wetland Waters of the U.S.

Jurisdictional non-wetland waters of the U.S. were delineated based on the limits of the ordinary high-water mark (OHWM) as determined by changes in physical and biological features, such as bank erosion, deposited vegetation or debris, and vegetative characteristics. In the Arid West region, the Ordinary High-Water Mark (OHWM) indicates the limits of high flows in low- to moderate-discharge events (USACE, 2008). See Tables 1-1 and 1-2 in Attachment 3 (Federal Non-Wetland and Wetland Waters Indicator Information Potential Geomorphic and Vegetative Indicators of Ordinary High-Water Marks for the Arid West) for a list of key physical features used for determining the OHWM identified by the arid west manual. OHWM datasheets were not completed because of the lack of downstream connectivity to TNW.

## 5.3 RWQCB Waters of the State

The RWQCB waters of the state are generally delineated based on the limits of the OHWM as determined by changes in physical and biological features, such as bank erosion, deposited vegetation or debris, and vegetative characteristics. If waters of the U.S. are not present, the RWQCB may exert jurisdiction that matches the jurisdiction of CDFW, under Porter Cologne Water Quality Control Act. The Lahontan RWQCB (LRWQCB) is the state agency responsible for regulating waters of the State throughout the project site. In addition, the RWQCB can take jurisdiction over wetlands of the State if the area has hydric substrates and wetland hydrology present, as described above for Wetlands of the U.S.

## 5.4 CDFW Jurisdictional Waters

CDFW jurisdiction was delineated to the tops of the channel banks. CDFW has jurisdiction over a larger area than the federal jurisdiction, therefore the total acreage of CDFW jurisdictional streambeds includes all federally jurisdictional waters of the U.S., as well as additional adjacent state jurisdictional streambeds and vegetation.

## 6.0 Results

Two categories of jurisdictional features were documented within the project site: LRWQCB waters of the State and CDFW jurisdictional streambeds (refer to Figures 4a and 4b, Attachment 1). One drainage was mapped within each of the project sites which all fall under the jurisdiction of CDFW. The drainage features are not expected to fall under the jurisdiction of the USACE because they lack a connection to downstream TNW. The LRWQCB waters of the State within the two drainages were therefore mapped to match the limits of the CDFW jurisdictional streambeds. Table 4 and Figures 4a and 4b (Attachment 1) show locations and acreages of jurisdictional features within the project site. Attachment 4 includes all plants observed on the project site and includes their wetland indicator status.

**Table 3. Jurisdictional Waters and Wetlands within the Project Site (acres)**

Drainage ID	SARWQCB Waters of the State/ CDFW Jurisdictional Streambeds			
	Area (Acres)			
	Permanent Impacts	Temporary Impacts	Length (ft.)	Dominant Vegetation <sup>1</sup>
D-1 (Dola Ditch)	0.07	0.20	219	Non-vegetated Channel
L-1 (Lanzit Ditch)	0.06	0.26	203	Non-vegetated Channel
Total	<b>0.13</b>	<b>0.46</b>	<b>422</b>	--

- **Drainage D-1** – Drainage D-1 includes all of Dola Ditch that runs from north to south through the project site as well as a small swale along the edge of National Trails Highway. Drainage D-1 is an ephemeral drainage that flows only after rainfall through the region. The drainage is largely unvegetated and mapped as non-vegetated channel. Drainage D-1 is mapped as riverine in the National Wetland Inventory (USFWS, 2023) and is expected to fall under the jurisdiction of the LRWQCB and CDFW.
- **Drainage L-1** – Drainage L-1 includes all of Lanzit Ditch that runs north to south through the project site as well as a small swale along the edge of National Trails Highway. Drainage D-1 is an ephemeral drainage that flows only after rainfall through the region. The drainage is largely unvegetated and mapped as non-vegetated channel. Drainage D-1 is mapped as riverine in the National Wetland Inventory (USFWS, 2023) and is expected to fall under the jurisdiction of the LRWQCB and CDFW.

### 6.1 Wetland Waters of the U.S.

Based on the field assessment, no federal wetlands were determined to be present within the project site (see Figures 4a and 4b, Attachment 1). This was based on a lack of any field indicators.

### 6.2 Non-wetland Waters of the U.S.

Based on this assessment, Waters of the U.S. are not present in the project site. The project site lacked downstream connectivity to TNW was absent.

### 6.3 RWQCB Waters of the State

Based on the field Aspen’s professional opinion assessment and, 0.59 acres of the project site meet the definition of non-wetland waters of the State (see Table 4 and Figures 4a and 4b of Attachment 1). This includes 0.13 acres of permanent impacts and 0.46 acres of temporary impacts, as discussed above. No wetlands of the State were identified within the project site.

### 6.4 CDFW Jurisdictional Waters

Based on this assessment and Aspen’s professional opinion, approximately 0.59 acres within the project site meet the definition of CDFW jurisdictional streambeds (see Table 4 and Figures 4a and 4b of Attachment 1). This includes 0.13 acres of permanent impacts and 0.46 acres of temporary impacts, as discussed above. This conclusion is primarily based on the presence of bed and bank.

## 7.0 Summary and Conclusions

The project site includes jurisdictional Waters of the State and CDFW jurisdictional streambeds:

- 0.59 acres of non-wetland waters of the State were mapped within the project site. This includes 0.13 acres of permanent impacts and 0.46 acres of temporary impacts. The limits of jurisdiction match the CDFW jurisdiction described below.
- 0.59 acres of CDFW jurisdictional streambeds were mapped based on the presence of clearly defined bed and banks and field observations. This includes 0.13 acres of permanent impacts and 0.46 acres of temporary impacts.

The conclusions presented above represent Aspen's professional opinion based on our knowledge and experience with the USACE, LRWQCB, and CDFW, including the applicable regulatory guidance documents and manuals. However, the USACE, SARWQCB, and CDFW have final authority in determining the status and presence of jurisdictional wetlands and waters and the extent of their boundaries.

## 8.0. Literature Cited

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, D.H. Wilken (eds.) 2012. The Jepson Manual: Vascular Plants of California, 2nd ed. University Press, Berkeley, California.
- CDFW (California Department of Fish and Wildlife). 2023. California Natural Community List. CDFW. Sacramento. Online: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>
- CDWR (California Department of Water Resources). 2004. California's Groundwater (Bulletin 118). [online]: [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/7\\_008\\_BristolValley.pdf#:~:text=Groundwater%20in%20the%20basin%20is%20sodium%20bicarbonate%20or,content%20as%20much%20as%20298%2C000%20mg%2FL%20%28DWR%201967%29](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/7_008_BristolValley.pdf#:~:text=Groundwater%20in%20the%20basin%20is%20sodium%20bicarbonate%20or,content%20as%20much%20as%20298%2C000%20mg%2FL%20%28DWR%201967%29). Accessed February 2023.
- Curtis, K.E. and R.W. Lichvar. 2010. Updated Datasheet for the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. [http://www.spa.usace.army.mil/Portals/16/docs/civilworks/regulatory/Jurisdiction/OHWM\\_Arid\\_West\\_Datasheet.pdf](http://www.spa.usace.army.mil/Portals/16/docs/civilworks/regulatory/Jurisdiction/OHWM_Arid_West_Datasheet.pdf).
- EPA (US Environmental Protection Agency). 2022. Clean Water Act Section 401 Water Quality Certification Improvement Rule; Proposed Rule. Federal Register 87:35318-35381 (June 9).
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1–17. Published 28 April 2016. ISSN 2153 733X
- Natural Resource Conservation Service (NRCS). 2023. Web Soil Survey 2.0. [online]: <http://websoilsurvey.nrcs.usda.gov/> Accessed July 2023.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evans. 2009. Manual of California Vegetation, 2nd ed. California Native Plant Society, Sacramento, California. 1300 pp.
- SWRCB (State Water Resources Control Board). 2006. Water Quality Control Plan: Colorado River Basin-Region 7.
- \_\_\_\_\_. 2022. State Water Resources Control Board Resolution No. 2021-0012. Accessed September 2022. [https://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/wrapp/rs2021\\_0012.pdf](https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/rs2021_0012.pdf).
- U.S. Army Corps of Engineers (USACE). 1987. U.S. Army Corps Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, MS.
- \_\_\_\_\_. 2008. Regional Supplement to the U.S Army Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- USACE and EPA. (US Environmental Protection Agency). 2020. The Navigable Waters Protection Rule: Definition of “Waters of the United States.” Final rule, prepublication copy issued January 23, 2020, pending publication in Federal Register.

U.S. Climate Data, 2023. U.S. Climate Data Website.

<https://www.usclimatedata.com/climate/daggett/california/united-states/usca0277> Accessed July 2023.

U.S. Fish and Wildlife Service (USFWS). 2023. National Wetland Inventory. [Online]:

<https://www.fws.gov/wetlands/data/Mapper.html> Accessed July 2023.

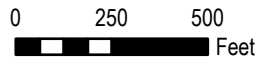
NOT FOR BID

**Attachment 1 – Figures**

NOT FOR BID



Scale 1:6,000





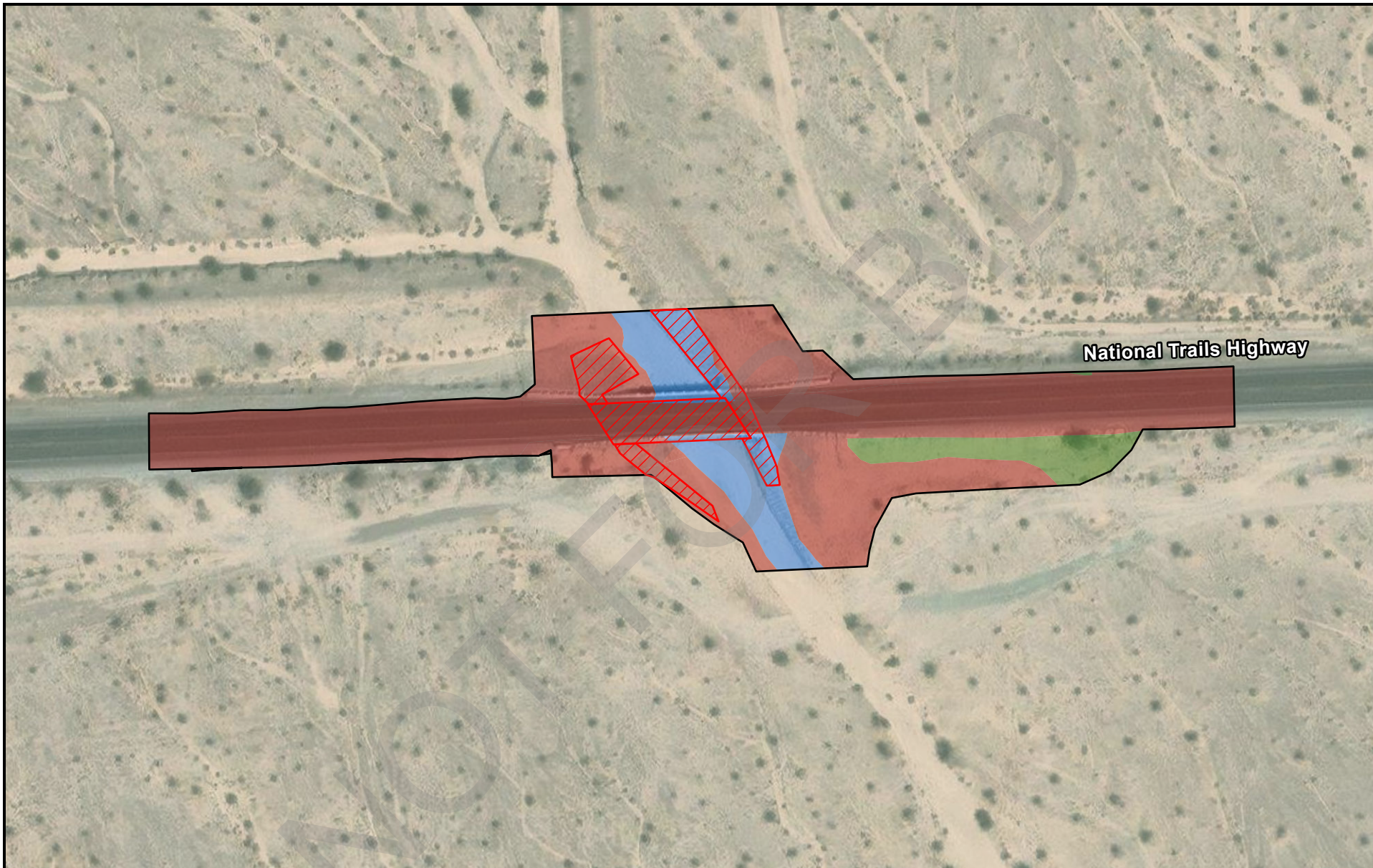
-  Temporary Disturbance Area
-  Permanent Disturbance Area

Figure 1

Project Location

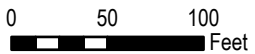


Scale 1:1,200

- Temporary Disturbance Area
- Permanent Disturbance Area

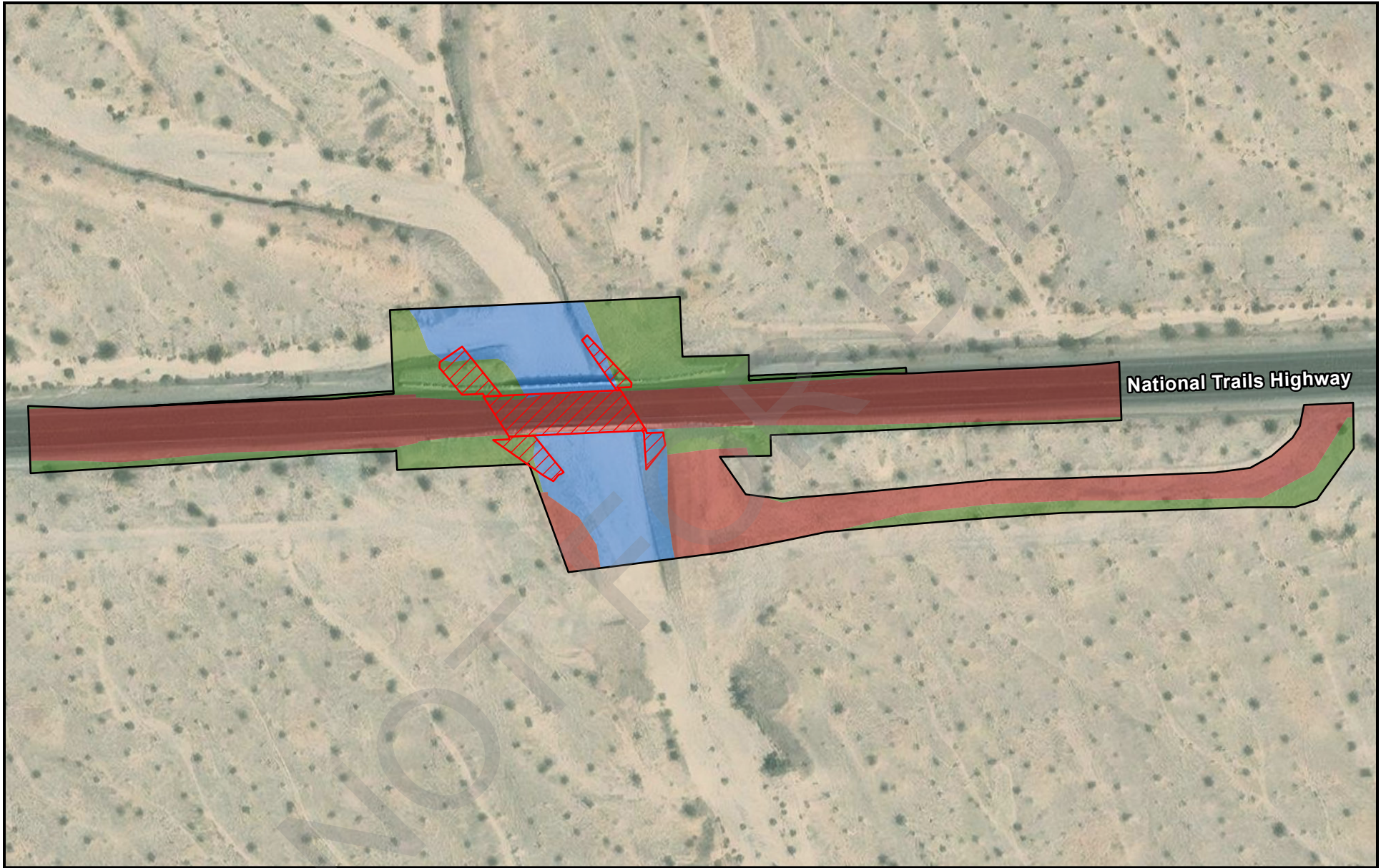
Vegetation/Cover Type

- Mojave Creosote Bush Scrub
- Non-Vegetated Channel
- Disturbed/Developed



**Figure 2a**

**Dola Ditch Bridge Replacement  
Vegetation and Land Cover**

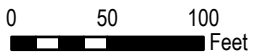


Scale 1:1,200

- Temporary Disturbance Area
- Permanent Disturbance Area

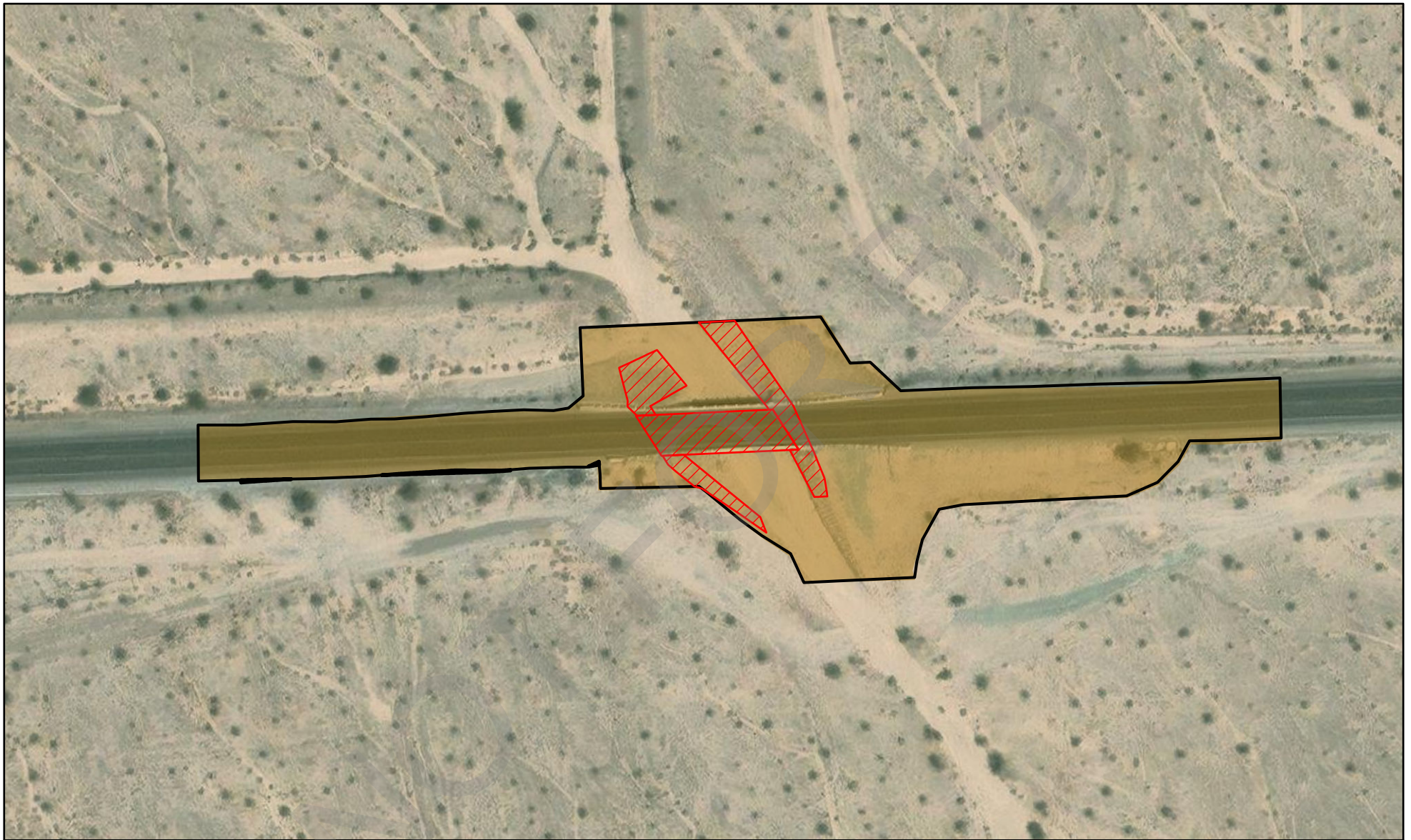
Vegetation/Cover Type

- Mojave Creosote Bush Scrub
- Non-Vegetated Channel
- Disturbed/Developed

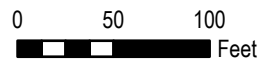


**Figure 2b**

**Lanzit Ditch Bridge Replacement  
Vegetation and Land Cover**



1:1,200






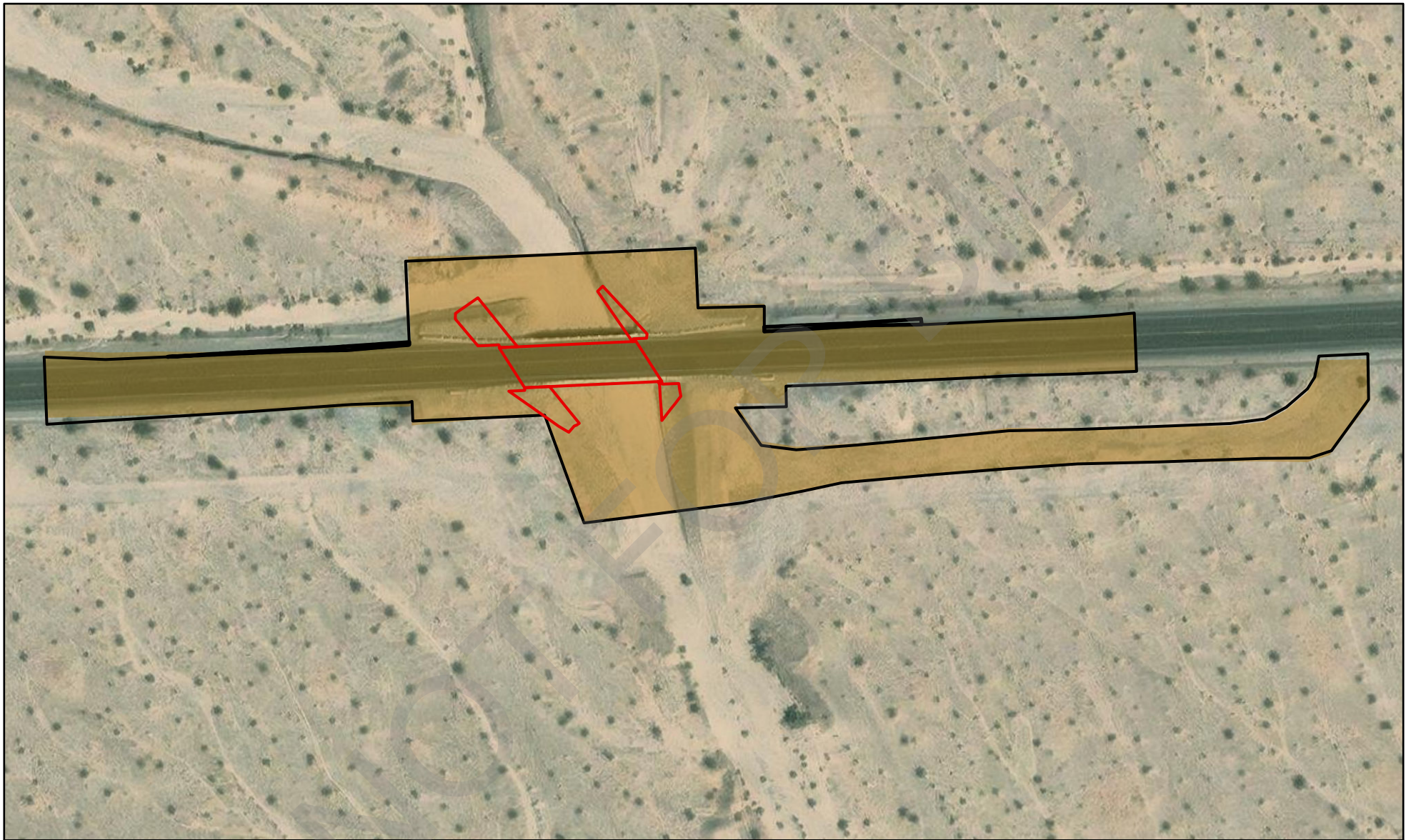
-  Permanent Disturbance Area
-  Temporary Disturbance Area
-  Rositas-Carrizo (MUSYM s1137)

Figure 3a

**Dola Ditch Bridge Replacement  
Soils**



1:1,200



0 50 100  
Feet




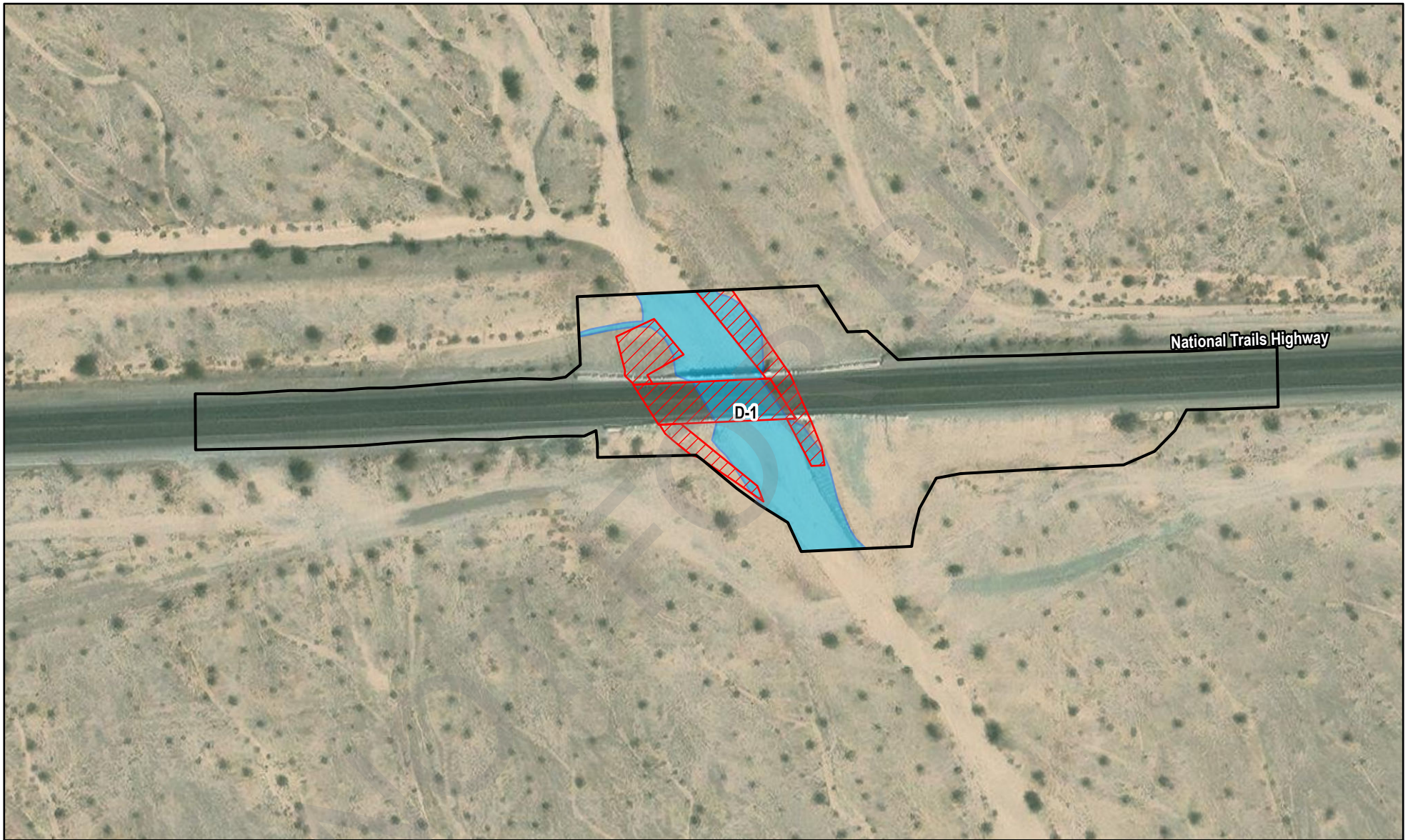
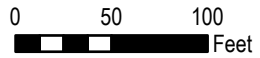
-  Permanent Disturbance Area
-  Temporary Disturbance Area
-  Rositas-Carrizo (MUSYM s1137)

Figure 3b

Lanzit Ditch Bridge Replacement  
Soils



1:1,200






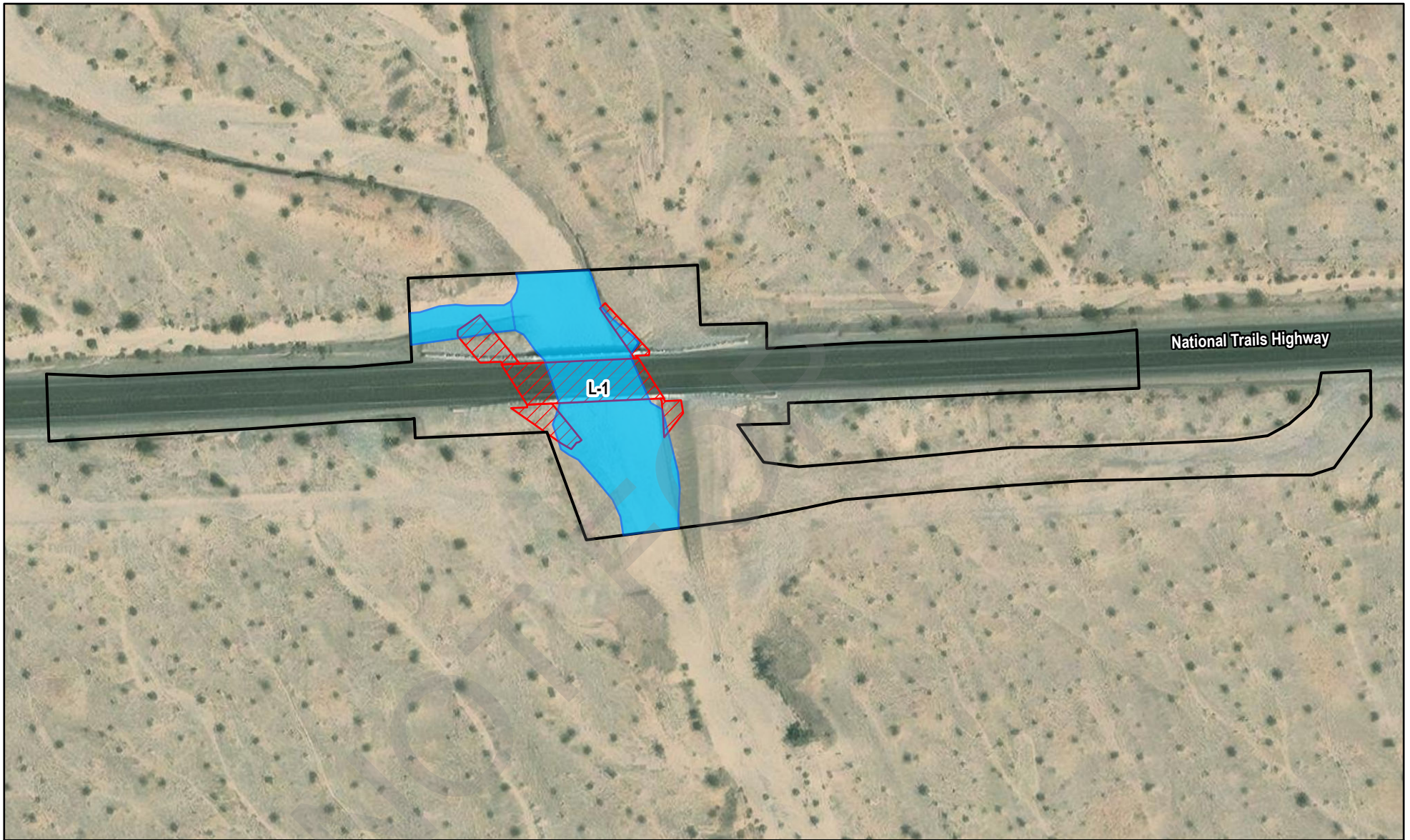
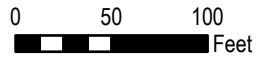
-  Waters of the State/CDFW Streambeds
-  Temporary Disturbance Area
-  Permanent Disturbance Area

Figure 4a

**Dola Ditch Bridge Replacement  
Jurisdictional Features**



1:1,200







-  Waters of the State/CDFW Streambeds
-  CDFW Jurisdictional Waters
-  Temporary Disturbance Area
-  Permanent Disturbance Area

Figure 4b

**Lanzit Ditch Bridge Replacement  
Jurisdictional Features**

**Attachment 2 – Photo Exhibit**

NOT FOR BID

**AQUATIC RESOURCES DELINEATION REPORT**  
**DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT PROJECT**



Photo 1: Downstream view of Dolan Ditch Bridge, facing south on March 14, 2023.



Photo 2: Upstream view of Dolan Ditch Bridge, facing north on March 14, 2023.



Photo 3: Creosote bush scrub facing southwest from northeast portion of Dolan Ditch project site on March 14, 2023.



Photo 4: Ephemeral drainage on north side of Dolan Ditch Bridge on March 14, 2023.

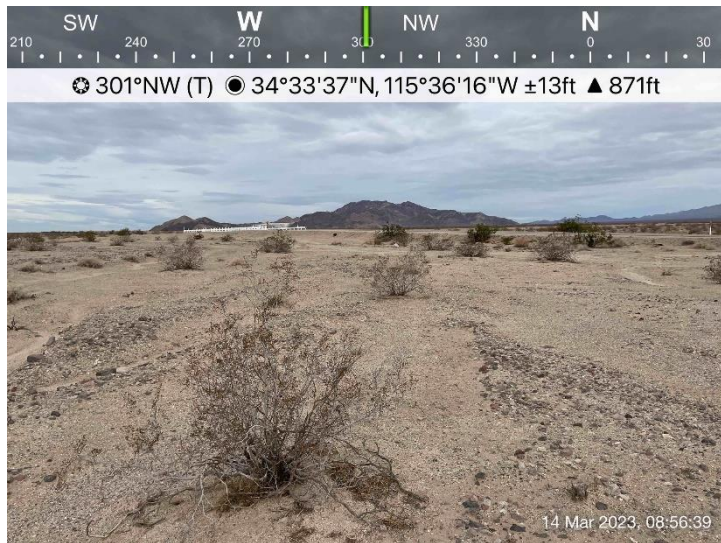


Photo 5: Southeast portion of Dolan Ditch project site facing northwest on March 14, 2023.

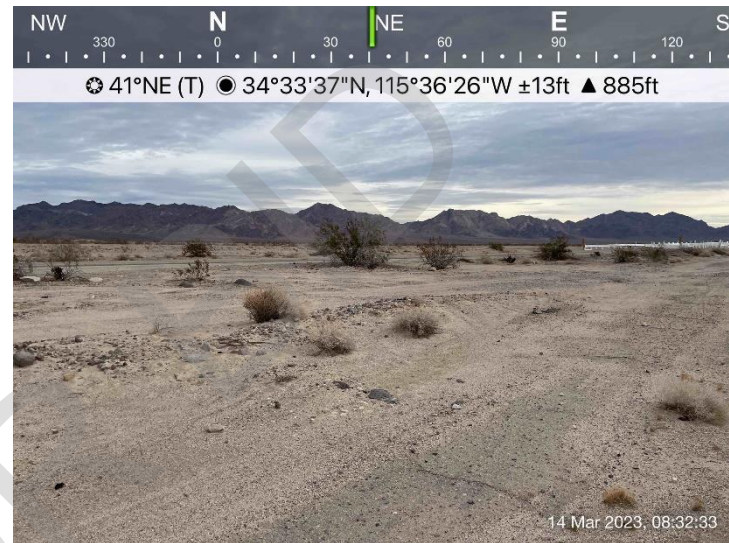


Photo 6: Southwest portion of Dolan Ditch project site facing northeast on March 14, 2023.



Photo 7: Downstream view of Lanzit Ditch Bridge, facing south on March 14, 2023.



Photo 8: Upstream view of Lanzit Ditch Bridge, facing north on March 14, 2023.

**Attachment 3 – Federal Waters of the U.S. Indicator Information**

NOT FOR BID

**Table 1. Potential Geomorphic Indicators of Ordinary High-Water Marks for the Arid West**

<b>(A) Below OHW</b>	<b>(B) At OHW</b>	<b>(C) Above OHW</b>
1. In-stream dunes	1. Valley flat	1. Desert pavement
2. Crested ripples	2. Active floodplain	2. Rock varnish
3. Flaser bedding	3. Benches: low, mid, most prominent	3. Clast weathering
4. Harrow marks	4. Highest surface of channel bars	4. Salt splitting
5. Gravel sheets to rippled sands	5. Top of point bars	5. Carbonate etching
6. Meander bars	6. Break in bank slope	6. Depositional topography
7. Sand tongues	7. Upper limit of sand-sized particles	7. Caliche rubble
8. Muddy point bars	8. Change in particle size distribution	8. Soil development
9. Long gravel bars	9. Staining of rocks	9. Surface color/tone
10. Cobble bars behind obstructions	10. Exposed root hairs below intact soil layer	10. Drainage development
11. Scour holes downstream of obstructions	11. Silt deposits	11. Surface relief
12. Obstacle marks	12. Litter (organic debris, small twigs and leaves)	12. Surface rounding
13. Stepped-bed morphology in gravel	13. Drift (organic debris, larger than twigs)	
14. Narrow berms and levees		
15. Streaming lineations		
16. Desiccation/mud cracks		
17. Armored mud balls		
18. Knick Points		

**Table 2. Potential Vegetation Indicators of Ordinary High-Water Marks for the Arid West**

	<b>(D) Below OHW</b>	<b>(E) At OHW</b>	<b>(F) Above OHW</b>
Hydroriparian indicators	1. Herbaceous marsh species 2. Pioneer tree seedlings 3. Sparse, low vegetation 4. Annual herbs, hydromesic ruderals 5. Perennial herbs, hydromesic clonals	1. Annual herbs, hydromesic ruderals 2. Perennial herbs, hydromesic clonals 3. Pioneer tree seedlings 4. Pioneer tree saplings	1. Annual herbs, xeric ruderals 2. Perennial herbs, non-clonal 3. Perennial herbs, clonal and non-clonal co-dominant 4. Mature pioneer trees, no young trees 5. Mature pioneer trees w/upland species 6. Late-successional species
Mesoriparian Indicators	6. Pioneer tree seedlings 7. Sparse, low vegetation 8. Pioneer tree saplings 9. Xeroriparian species	5. Sparse, low vegetation annual herbs, hydromesic 6. ruderals 7. Perennial herbs, hydromesic clonals 8. Pioneer tree seedlings 9. Pioneer tree saplings 10. Xeroriparian species 11. Annual herbs, xeric ruderals	7. Xeroriparian species 8. Annual herbs, xeric ruderals 9. Perennial herbs, non-clonal 10. Perennial herbs, clonal and non-clonal codominant 11. Mature pioneer trees, no young trees 12. Mature pioneer trees, xeric understory 13. Mature pioneer trees w/upland species 14. Late-successional species 15. Upland species
Xeroriparian indicators	10. Sparse, low vegetation 11. Xeroriparian species 12. Annual herbs, xeric ruderals	12. Sparse, low vegetation 13. Xeroriparian species 14. Annual herbs, xeric ruderals	16. Annual herbs, xeric ruderals 17. Mature pioneer trees w/upland species 18. Upland species

**Table 3. Summary of Wetland Indicator Status**

Category		Probability
Obligate Wetland	OBL	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland	FACW	Usually occur in wetlands (estimated probability of 67–99%)
Facultative	FAC	Equally likely to occur in wetlands/non-wetlands (estimated probability of 34–66%)
Facultative Upland	FACU	Usually occur in non-wetlands (estimated probability 67–99%)
Obligate Upland	UPL	Almost always occur in non-wetlands (estimated probability >99%)
Non-Indicator	NI	No indicator status has been assigned

Source: Reed, 1988

**Table 4. Wetland Hydrology Indicators\***

Primary Indicators	Secondary Indicators
Watermarks	Oxidized Rhizospheres Associated with Living Roots
Water-Borne Sediment Deposits	FAC-Neutral Test
Drift Lines	Water-Stained Leaves
Drainage Patterns Within Wetlands	Local Soil Survey Data

\*Table adapted from 1987 USACE Manual and Related Guidance Documents.

**Table 5. Wetland Hydrology Indicators for the Arid West\***

	Primary Indicator (any one indicator is sufficient to determine that wetland hydrology is present)	Secondary Indicator (two or more indicators are required to determine that wetland hydrology is present)
<b>Group A – Observation of Surface Water or Saturated Soils</b>		
A1 – Surface Water	X	
A2 – High Water Table	X	
A3 – Saturation	X	
<b>Group B – Evidence of Recent Inundation</b>		
B1 – Water Marks	X (Non-riverine)	X (Riverine)
B2 – Sediment Deposits	X (Non-riverine)	X (Riverine)
B3 – Drift Deposits	X (Non-riverine)	X (Riverine)
B6 – Surface Soil Cracks	X	
B7 – Inundation Visible on Aerial Imagery	X	
B9 – Water-Stained Leaves	X	
B10 – Drainage	X	X
B11 – Salt Crust	X	
B12 – Biotic Crust	X	
B13 – Aquatic Invertebrates	X	
<b>Group C – Evidence of Current or Recent Soil Saturation</b>		
C1 – Hydrogen Sulfide Odor	X	
C2 – Dry-Season Water Table		X
C3 – Oxidized Rhizospheres along Living Roots	X	
C4 – Presence of Reduced Iron	X	

**Table 5. Wetland Hydrology Indicators for the Arid West\***

	<b>Primary Indicator (any one indicator is sufficient to determine that wetland hydrology is present)</b>	<b>Secondary Indicator (two or more indicators are required to determine that wetland hydrology is present)</b>
C6 – Recent Iron Reduction in Tilled Soils	X	
C7 – Thin Muck Surface	X	
C8 – Crayfish Burrows		X
C9 – Saturation Visible on Aerial Imagery		X
Group D – Evidence from other Site Conditions or Data		
D3 – Shallow Aquitard		X
D5 – FAC-Neutral Test		X

\*Table adapted from Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0.

**Table 6. Field Indicators of Hydric Soil Conditions\***

<b>1. Indicators of Historical Hydric Soil Conditions</b>	<b>2. Indicators of Current Hydric Soil Conditions</b>
a. Histosols	a. Aquic or peraquic moisture regime (inundation and/or soil saturation for *7 continuous days)
b. Histic epipedons;	b. Reducing soil conditions (inundation and/or soil saturation for *7 continuous days)
c. Soil colors (e.g., gleyed or low-chroma colors, soils with bright mottles (Redoximorphic features) and/or depleted soil matrix	c. Sulfidic material (rotten egg smell)
d. High organic content in surface of sandy soils	
e. Organic streaking in sandy soils	
f. Iron and manganese concretions	
g. Soil listed on county hydric soils list	

\*Table adapted from 1987 USACE Manual and Related Guidance Documents.

**Table 7. Hydric Soil Indicators for the Arid West\***

<b>All Soils</b>	<b>Hydric Soil Indicators</b>		<b>Hydric Soil Indicators for Problem Soils**</b>
	<b>Sandy Soils</b>	<b>Loamy and Clay Soils</b>	
A1 – Histosol	S1 – Sandy Mucky Mineral	F1 – Loamy Mucky Mineral	A9 – 1 cm Muck
A2 – Histic Epipedon	S4 – Sandy Gleyed Matrix	F2 – Loamy Gleyed Matrix	A10 – 2 cm Muck
A3 – Black Histic	S5 – Sandy Redox	F3 – Depleted Matrix	F18 – Reduced Verti
A4 – Hydrogen Sulfide	S6 – Stripped Matrix	F6 – Redox Dark Surface	TF2 – Red Parent Material
A5 – Stratified Layers	—	F7 – Depleted Dark Surface	Other (See Section 5 of Regional Supplement, Version 2.0)
A9 – 1 cm Muck	—	F8 – Redox Depressions	—
A11 – Depleted Below Dark Surface	—	F9 – Vernal Pools	—
A12 – Thick Dark Surface	—	—	—

\* Table adapted from Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0.

\*\* Indicators of hydrophytic vegetation and wetland hydrology must be present

**Attachment 4 – Observed Plant Species List and Wetland Indicator Status**

NOT FOR BID

**Attachment 4. Observed Plant Species and Wetland Indicator Status**

<i>Latin Name</i>	Common Name	Wetland Indicator Status
<b>VASCULAR PLANTS</b>		
<b>Dicotyledons</b>		
ASTERACEAE	ASTER FAMILY	
<i>Ambrosia dumosa</i>	White bursage	--
<i>Encelia farinosa</i>	Brittlebush	--
<i>Ericameria nauseosa</i>	Mojave rabbitbrush	--
<i>Hymenocloa salsola</i>	Cheesebush	--
<i>Malacothrix glabrata</i>	Desert dandelion	--
<i>Rafinesquia neomexicana</i>	Desert chicory	--
BORAGINACEAE	BORAGE OR WATERLEAF FAMILY	
<i>Johnstonella angustifolia</i>	Narrow-leaved johnstonella	--
CACTACEAE	CACTUS FAMILY	
<i>Cylindropuntia echinocarpa</i>	Silver cholla	--
<i>Cylindropuntia ramosissima</i>	Pencil cholla	--
<i>Opuntia basilaris</i>	Beavertail cactus	--
CAPPARACEAE	CAPER FAMILY	
<i>Isomeris arborea</i>	Bladderpod	--
CONVOLVULACEAE	MORNING GLORY FAMILY	
<i>Cuscuta spp.</i>	Dodder	--
EUPHORBIACEAE	SPURGE FAMILY	
<i>Euphorbia albomarginata</i>	Rattlesnake spurge	--
<i>Stillingia spp.</i>	Stillingia	--
FABACEAE	LEGUME FAMILY, PEA FAMILY	
<i>Psoralea argophylla</i>	Smoke tree	--
LOASACEAE	LOASA FAMILY	
<i>Petalonyx thurberi ssp. thurberi</i>	Sandpaper plant	--
ONAGRACEAE	EVENING-PROMROSE FAMILY	
<i>Oenothera deltoides</i>	Birdcage evening primrose	--
OROBANCHACEAE	OROBANCHE FAMILY	
<i>Orobanche cooperi</i>	Pine broom-rape	--
POLYGONACEAE	BUCKWHEAT FAMILY	
<i>Chorizanthe rigida</i>	Devil's spineflower	--
<i>Eriogonum inflatum</i>	Desert trumpet	--
ZYGOPHYLLACEAE	CALTROP FAMILY	
<i>Larrea tridentata</i>	Creosote bush	--
<b>Monocotyledons</b>		
EPHEDRACEAE	EPHEDRA FAMILY	
<i>Ephedra nevadensis</i>	Nevada ephedra	--
POACEAE	GRASS FAMILY	
<i>Schismus barbatus</i>	Common Mediterranean grass,	--

Species introduced to California are indicated by an asterisk. Special-status species are indicated by two asterisks. This list includes only species observed on the site. Others may have been overlooked or unidentifiable due to season (many plants are identifiable only in spring). Plants were identified using keys, descriptions, and illustrations in Baldwin et al (2012). Plant taxonomy and nomenclature generally follow Baldwin et al. (2012). Wetland Indicator Status are defined below. If a species had no status, it was assigned Upland, the least restrictive category.

Notes:

- UPL (Upland): Almost never occur in wetlands.
- FACU (Facultative Upland): Usually occur in non-wetlands but may occur in wetlands.
- FAC (Facultative): Occur in wetlands and non-wetlands.
- FACW (Facultative Wetland): Usually occur in wetlands but may occur in non-wetlands.
- OBL (Obligate): Almost always occur in wetlands.



## Colorado River Basin Regional Water Quality Control Board

CERTIFIED MAIL: 7022 0410 0001 5745 1322

February 15, 2024

Anthony Pham, Engineering Manager  
San Bernardino County  
825 East Third Street, Room 123  
San Bernardino, CA 92415  
[Anthony.Pham@dpw.sbcounty.gov](mailto:Anthony.Pham@dpw.sbcounty.gov)

**SUBJECT: WASTE DISCHARGE REQUIREMENTS FOR DREDGED OR FILL DISCHARGES TO WATERS OF THE STATE FOR THE DOLA DITCH BRIDGE REPLACEMENT PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA, WDID NO. 7A363046001**

Dear Mr. Pham:

Enclosed is a copy of Board Order R7-2024-0003. This Board Order was adopted by the Colorado River Basin Water Board on February 13, 2024, during a public meeting.

If you require further assistance, please contact Logan Raub by phone at (760) 776-8966 or via email at [Logan.Raub@waterboards.ca.gov](mailto:Logan.Raub@waterboards.ca.gov)

Sincerely,

Paula Rasmussen  
Executive Officer  
Colorado River Basin  
Regional Water Quality Control Board

Enclosure: Board Order No. R7-2024-0003  
File: WDID No. 7A363046001, Dola Ditch Bridge Replacement Project

cc: [via email only] (w/ enclosure):

AJ Gerber, Senior Planner  
San Bernardino County  
[Arnold.Gerber@dpw.sbcounty.gov](mailto:Arnold.Gerber@dpw.sbcounty.gov)

EDWARD MUZIK, CHAIR | PAULA RASMUSSEN, EXECUTIVE OFFICER

Brandy Wood, Senior Environmental Scientist  
CA Department of Fish and Wildlife Region 6  
[Brandy.Wood@wildlife.ca.gov](mailto:Brandy.Wood@wildlife.ca.gov)

John Chisholm, District Coordinator  
CA Department of Transportation – District 8  
[john.chisholm@dot.ca.gov](mailto:john.chisholm@dot.ca.gov)

U.S. Bureau of Land Management  
[BLM CA Web CD@blm.gov](mailto:BLM_CA_Web_CD@blm.gov)

U.S. Fish and Wildlife Service  
[matt\\_hamman@fws.gov](mailto:matt_hamman@fws.gov)

Karen Mogus, Deputy Director  
Division of Water Quality  
State Water Resources Control Board  
[Karen.Mogus@waterboards.ca.gov](mailto:Karen.Mogus@waterboards.ca.gov)

CWA Section 401 WQC Program  
Division of Water Quality  
State Water Resources Control Board  
[Stateboard401.Stateboard401@waterboards.ca.gov](mailto:Stateboard401.Stateboard401@waterboards.ca.gov)

---

## Colorado River Basin Regional Water Quality Control Board

---

### WASTE DISCHARGE REQUIREMENTS FOR DREDGED OR FILL DISCHARGES TO WATERS OF THE STATE

ORDER R7-2024-0003

---

**Effective Date:** February 13, 2024

**Program Type:** Fill/Excavation

**Project Type:** Bridges, Overpasses and Crossings

**Project:** Dola Ditch Bridge Replacement Project  
Regulatory Measure ID: 454318  
WDID: 7A363046001  
Place ID: 890348

**Applicant:** San Bernardino County

**Applicant Contact:** Anthony Pham  
Engineering Manager  
825 East Third Street, Room 123  
San Bernardino, CA 92415  
Phone: (909) 387-8109  
Email: [Anthony.Pham@dpw.sbcounty.gov](mailto:Anthony.Pham@dpw.sbcounty.gov)

**Applicant's Agent:** AJ Gerber  
Senior Planner  
825 East Third Street, Room 123  
San Bernardino, CA 92415  
Phone: (909) 387-8109  
Email: [Arnold.Gerber@dpw.sbcounty.gov](mailto:Arnold.Gerber@dpw.sbcounty.gov)

**Regional Water Board Staff:** Logan Raub  
Senior Environmental Scientist  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260  
Phone: (760) 776-8966  
Email: [Logan.Raub@waterboards.ca.gov](mailto:Logan.Raub@waterboards.ca.gov)

---

EDWARD MUZIK, CHAIR | PAULA RASMUSSEN, EXECUTIVE OFFICER

San Bernardino County  
Dola Ditch Bridge Replacement Project

WDID: 7A363046001  
Reg. Meas. ID: 454318  
Place ID: 890348

**Colorado River Basin Water Board Contact Person:**

If you have any questions, please call the Colorado River Basin Water Quality Control Board (Colorado River Basin Water Board) staff contact listed above or (760) 346-7491 and ask to speak with the 401 Water Quality Certification Program Manager.

NOT FOR BID

Table of Contents

ORDER R7-2024-0003 ..... 1

Dola Ditch Bridge Replacement Project..... 1

I. Order ..... 4

II. Public Notice..... 4

III. Project Purpose ..... 4

IV. Project Description..... 4

V. Project Location..... 5

VI. Project Impact and Receiving Waters Information..... 5

VII. Description of Direct Impacts to Waters of the State ..... 5

VIII. Compensatory Mitigation ..... 6

IX. California Environmental Quality Act (CEQA)..... 6

X. Petitions for Review ..... 6

XI. Fees Received..... 6

XII. Conditions..... 7

XIII. Conclusion..... 19

**Attachment A Project Maps ..... 20**

Attachment B Receiving Waters, Impact, and Mitigation Information ..... 25

Attachment C CEQA Findings ..... 27

Attachment D Signatory Requirements..... 28

Attachment E Reporting Requirements ..... 29

## **I. Order**

This Order for Waste Discharge Requirements (Order) is issued at the request of San Bernardino County, Department of Public Works (County or Permittee) for the Dola Ditch Bridge Replacement (Project). This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The application was received on September 18, 2023. The application was deemed complete on October 16, 2023.

## **II. Public Notice**

The Colorado River Basin Water Board has notified the Permittee and all known interested agencies and persons of its intent to issue WDRs for this discharge and has provided them with an opportunity for a public meeting and to submit comments. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

## **III. Project Purpose**

The purpose of the Project is to replace the existing timber bridge at Dola Ditch with a new, reinforced concrete bridge.

## **IV. Project Description**

In 2017, the Dola Ditch Bridge (Bridge) on National Trails Highway (NTH) was reconstructed with timber to retain its historical appearance. Subsequently in 2018, the County and the State of California Department of Transportation (Caltrans) conducted an inspection of the bridge and found cracks and splits in the timber. Caltrans required the County to repair the deficiencies. The County plans to reconstruct the bridge utilizing concrete in the place of timber, but with stamping and colored concrete to mimic the historical appearance of the wood constructed bridge. The concrete is more sustainable, holds heavier cargo weight, and requires less maintenance.

Construction activities include relocation of existing utility lines, including a fiber optic telecommunication line and solar-powered local utility line, that are currently tied to the bridge or adjacent to the bridge; removal of existing guard rails, bridge deck, and transition structures; removal of existing piles and necessary grading; and construction of the new bridge.

The Bridge may be lengthened, as needed, to properly convey storm flows. The width of the bridge will be extended from 32 feet to 40 feet to accommodate two 12-foot lanes, two 6-foot shoulders, and 2-foot railings. The length of the Bridge will be extended from 59 feet to 100 feet. The vertical profile of the Bridge will remain close to the existing profile unless additional vertical clearance is required to provide sufficient water conveyance beneath the Bridge. It is anticipated that any necessary changes in vertical profile would be 2 feet or less, with the elevation gradually conforming to the existing roadway elevations. The alignment