APPENDIX G
AQUATIC RESOURCES DELINEATION REPORT

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TTM 20426 Project

Prepared for

Rodeo Credit Enterprises, LLC

Submitted by

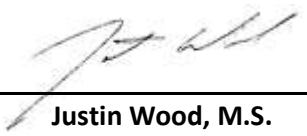
Aspen environmental group

August 2024

Aquatic Resources Delineation Report

TTM 20426 Project
Victorville, 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.



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TABLES

ATTACHMENTS

1. INTRODUCTION

This report was prepared by Aspen Environmental Group (Aspen) to describe the aquatic resources at the TTM 20426 Project (project). The project is located within Victorville, San Bernardino County, California. Rodeo Credit Enterprises, LLC (Rodeo) proposes to construct a residential development on an approximately 39-acre site. Throughout this report, "project" refers to the proposed residential development, while "project site" refers to all areas that may be directly or indirectly impacted by project activities as well as a larger survey area. This report provides preliminary data on the extent of resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Lahontan Basin Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

1.1. Applicant Name and Address

Rodeo Credit Enterprises, LLC
9595 Wilshire Blvd, Suite #708
Beverly Hills, CA 90212

1.2. Contact Person and Phone Number

Tim Roofian
Email: timr@rcellc.us
Phone: (310) 903-0861

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 the greater Los Angeles area, California
Take Interstate 10 East to Rancho Cucamonga.
Take Interstate 15 North towards Victorville.
Take Exit for U.S. Route 395.
Turn left on Palmdale Road (Highway 18) and travel west 1.0 mile.
Turn south of Bellflower Street for approximately 0.25 mile to the project site.

2. PROJECT DESCRIPTION AND LOCATION

2.1. Project Description

The project proposes to construct a residential development consisting of 140 single family lots ranging from 7,046 square feet to 17,385 square feet. The project would be accessed by developer-installed street improvements at Dos Palmas Road in accordance with the City of Victorville Standards. The project proposes two drainage basins that would also function as the project's open space. The Lot A drainage basin is approximately 22,522 square feet while the Lot B drainage basin is 22,500 square feet. Ornamental water-efficient landscaping would be installed throughout the project site. Planting materials would be selected in accordance with the City's Water Wise Plant list and Victorville Municipal Code Section 16-3.24.030, Landscape Standards, and Section 13.60.060, Limitations on Rehabilitated or New Model Homes and New

Residential Development Landscaping. Utilities including water, sewer, drainage, and dry utilities would be included in the project.

2.2. Project Location

The project is approximately 39 acres of undeveloped land near the intersection of Dos Palmas Road and Bellflower Street in the city of Victorville, San Bernardino County, California. The project site is located in Section 20 and 21 of Township 5 North, Range 5 West within U.S. Geological Survey's (USGS) 7.5-minute Adelanto, California and Baldy Mesa, California quadrangle (see Figure 1, Attachment 1). The project site is within the southwestern edge of the Mojave Desert. The elevation of the project site ranges from approximately 3,175 feet to 3,195 feet above mean sea level (amsl). The surrounding land use is comprised of open space with scattered residential and commercial development in the vicinity.

3. EXISTING CONDITIONS

3.1. Topography and Surrounding Land Use

The topography within the project site is relatively open and flat to slightly rolling hills with the elevation decreasing in a general north to south direction. The project site is within the Mojave Basin and Range major land resource area (MLRA) of land resource region (LRR) D (Western Range and Irrigation System; NRCS, 2022). Per the City of Victorville General Plan Land Use Element and online public information interactive map, the project site has a land use designation of "R-1" for Low Density Residential (City of Victorville, 2022 and 2024).

3.2. Vegetation

Vegetation mapping was done by drawing tentative boundaries onto high-resolution aerial image dated October 2, 2020, during the site visit which was conducted on February 29, 2024. The vegetation boundaries were then digitized into Geographic Information System (GIS) shapefiles and vegetation maps were created (Figure 2, Attachment 1). Vegetation within the project site is further described below using the names and descriptions in *A Manual of California Vegetation* (CNPS, 2023; Sawyer et al., 2009). 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-feet. Any vegetation map is subject to imprecision for several reasons:

- 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.
- 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.
- 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.

All vegetation and land cover types are described in detail below, and acreages are presented in Table 2 and shown in Figure 2 (Attachment 1).

Table 2. Vegetation and Other Land Cover Types in the Project Site	
Vegetation Type	**Project Site (acres)**
Mediterranean grass grasslands	37.84
Other Land Cover Types	
Developed	1.50
Total	39.34

Vegetation Types

Mediterranean grass grasslands (*Bromus rubens* - *Schismus barbatus* Herbaceous Semi-Natural Alliance). Mediterranean grass grasslands are a non-native vegetation type dominated by annual plants including Mediterranean grass (*Schismus barbatus*), London rocket (*Sisymbrium irio*), and coastal heron's bill (*Erodium cicutarium*). Other species such as annual burweed (*Ambrosia acanthicarpa*), desert croton (*Croton californicus*), and rubber rabbitbrush (*Ericameria nauseosa*) are present but are uncommon and localized. Mediterranean grass grasslands have not been assigned a State rank (SNA) and are therefore not recognized as a sensitive natural community by CDFW (CDFW, 2024).

Other Cover Types

Developed. This cover type includes all disturbed and developed areas within the project site including primarily unpaved roads and established off road vehicle trails. Sparse vegetation may be present, but these areas are largely unvegetated and experience periodic disturbance. 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, 2024).

3.3. Climate

Climate conditions at the project site are characterized by large fluctuations in daily temperature, high seasonal winds, and low humidity. As recorded at Victorville, the average annual high temperature for the region is 79 degrees Fahrenheit (°F) and the average annual low temperature is 46 °F (U.S. Climate Data, 2024). The average high temperature during the month of July (typically the warmest of the year) is 100°F, whereas the average low temperature during December (typically the coolest of the year) is 31°F. The average calendar-year annual precipitation is 5.06 inches, ranging from 3 to 6 inches annually and primarily occurring in the winter and spring months (U.S. Climate Data, 2024). Unique years can generate increased rainfall, when subtropical air from the south moves into the area and creates monsoonal thunderstorms. Alternatively, years of drought can yield average rainfall of less than one inch for the entire year. A water year is defined as October 1 through September 30. As of the survey date (February 29, 2024), the region had received 4.24 inches of rainfall, equating to approximately 113% of the average for a full water year (CDWR, 2024).

3.4. Hydrology

The National Hydrography Dataset (NHD) defines nested hydrologic units, beginning with regions that are subdivided into subregions, basins, subbasins and watersheds. The project site is within the approximately 4,618 square mile Mojave sub-basin (hydrologic unit code [HUC]-8 18090208; USEPA, 2024). Increasing in scale, the project site is within the approximately 168 square mile Upper Fremont Wash watershed (HUC-10 1809020805). The project site is within the approximately 52 square mile Manzanita Wash sub-watershed (HUC-12 180902080503). One drainage passes through the western half of the project site that originates

further to the southwest and flows northeast off the project site. Several small drainages are also present in the eastern half that originate on the project site and flow offsite to the northeast.

The project site is within the South Lahontan Basin of the Lahontan Region regulated by the Lahontan RWQCB, specifically within the Mojave Hydrologic Unit (SWRCB, 2021). Additionally, the US Fish and Wildlife Service's (USFWS) National Wetlands Inventory Wetlands Mapper does not show any wetland or riverine features on the project site (USFWS, 2024).

3.5. Soils and Geology

Soils

Historic soil data from the Natural Resources Conservation Service (NRCS) was used to determine potential soil types, including where hydric soils have historically occurred, within the survey area (NRCS, 2016 and 2024). Figure 3 (Attachment 1) illustrates the location of historic soil types identified in the survey area. Detailed information on elevation ranges, parent material, flooding potential, and drainage classes for each map unit symbol is provided in Table 3 below and the following discussion.

Table 3. Soil Units Occurring in the Survey Area

Map Unit Symbol	Map Unit Name	Hydric Soil (Y/N)
112	Cajon Sand, 0 To 2 Percent Slopes	N

Cajon sand, 0 to 2 percent slopes. This soil unit is a somewhat excessively drained soil found on alluvial fans in areas with 0 to 2 percent slopes, at elevations ranging from 1,800 to 3,200 feet amsl. The Cajon soil series is formed in sandy alluvium from dominantly granitic sources. Water depth is typically more than 80 inches, and these areas are not known to experience flooding. A typical soil profile for Cajon sand, 0 to 2 percent slopes, is composed of sand (H1; 0 to 7 inches), sand (H2; 7 to 25 inches), gravelly sand (H3; 25 to 45 inches), and stratified sand to loamy fine sand gravelly sand (H4; 45 to 60 inches).

Geology

The project site falls within the Mojave Desert geomorphic province (CGS, 2002; NRCS, 2022). This province is a broad interior region of isolated mountain ranges separated by expanses of desert plains. The Mojave Desert province is characterized by interior enclosed drainage and contains many playas and dry lake beds (CGS, 2002). The project site is made of Quaternary-aged older alluvium, lake, playa, and terrace deposits (CGS, 2024). The project site is not in proximity to any fault zones (USGS and CGS, 2024).

4. REGULATORY SETTING

Jurisdictional waters, including some wetlands and riparian habitats, are regulated by the USACE, the 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). The definition of federally jurisdictional wetlands and "waters of the U.S." have changed several times recently and the latest interpretation of the CWA is discussed below.

In 2020, the U.S. Environmental Protection Agency (USEPA) updated the CWA and their definition of navigable waters (USACE and USEPA, 2020). The Navigable Waters Protection Rule (NWPR) revised the definition of "Waters of the U.S." to encompass traditional navigable waters; perennial and intermittent tributaries that contribute surface waters flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters. Ephemeral waters were not included in the NWPR definition of "Waters of the U.S." In 2021, the USEPA and USACE were directed by the Biden Administration and the U.S. District Court to vacate the 2020 NWPR and revert to the pre-2020 rule. On January 18, 2023, the USEPA published the "Revised Definition of 'Waters of the United States'" (the January 2023 Rule), with a definition of "Waters of the U.S" that reutilized the 2006 Rapanos ruling's permanent and significant nexus standards.

Most recently on May 25, 2023, the U.S. Supreme Court decision in Sackett v. Environmental Protection Agency concluded that the significant nexus standard is inconsistent with the CWA. On August 29, 2023, the USACE and USEPA issued a prepublication of the final rule to amend the January 2023 Rule and define "Waters of the U.S." as follows, once again not including ephemeral waters:

- Traditional navigable waters, the territorial seas, and interstate waters (referred to as "(a)(1) waters").
- Impoundments of "Waters of the U.S.," other than impoundments of waters identified under paragraph (a)(5) (referred to as "(a)(2) waters").
- Tributaries to traditional navigable waters, the territorial seas, and interstate waters that are relatively permanent, standing or continuously flowing bodies of water (referred to as "(a)(3) waters" or "jurisdictional tributaries").
- Wetlands adjacent to and having a continuous surface connection with (a)(1) waters or relatively permanent, standing or continuously flowing (a)(2) waters (referred to as "jurisdictional adjacent wetlands").
- Intrastate lakes and ponds not identified as (a)(1) through (4) waters that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to (a)(1) or (a)(3) waters.

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

The RWQCB 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 (Water Code §13050[e]), including all waters of the U.S. (23 CCR §3831[w]). 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. The project site is within the jurisdictional boundaries of the Lahontan RWQCB.

On April 2, 2019, the State Water Resources Control Board (SWRCB) adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Waters of the State are typically delineated based on the ordinary high-water mark (OHWM) in the field as defined by federal guidelines (SWRCB, 2022; see also USACE, 2008a) 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 adopted definition and procedures 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. Based on these criteria, certain unvegetated sites (e.g., mud flats or playas) may be defined as wetlands based on only the soils and hydrology criteria. "Waters of the State" include the following wetland types under the adopted definition:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the State,
3. Artificial wetlands meeting the following criteria:

    (a) Approved by an agency as compensatory mitigation for impacts to other waters of the State, except where the mitigation is explicitly identified as being of limited duration,
    (b) Specifically identified in a water quality control plan as a wetland or other water of the State,
    (c) Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape,
    (d) Greater than or equal to one acre in size, unless it was constructed, and is currently used and maintained, primarily for the following purposes: industrial or municipal wastewater treatment or disposal; sediment settling; management (e.g., detention, infiltration, etc.) of stormwater runoff and other pollutants as part of a stormwater permitting program; surface water treatment; agricultural irrigation or stock watering; fire suppression; industrial processing or cooling; or active surface mining.

The State Definition and Procedures states that an artificial wetland less than one acre in size that does not satisfy the criteria defined in definitions 2, 3.a., 3.b., or 3.c. is not a water of the State.

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, Lahontan Region. The RWQCB may add conditions to their certification to remove or mitigate potential impacts to water quality standards.

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. 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 conducted by Aspen biologist Justin Wood on February 29, 2024. Prior to conducting the field assessment, Mr. Wood reviewed current and historic aerial photographs, the San Bernardino County Soil Survey (NRCS, 2023b), and the local and state hydric soil list (NRCS, 2023a) to evaluate the potential active channels and wetland features in the project site. Mr. Wood also reviewed the National Wetland Inventory (USFWS, 2023) and the 2020 wetland plant ratings in the National Wetland Plant List (USACE, 2020).

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 (Figure 4, Attachment 1). Field maps were digitized using Global 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). All plant species observed within the project site were also recorded and they are presented in Attachment 4 along with their wetland indicator status (USACE, 2020).

5.1. Wetland Waters of the U.S.

Federal wetlands, where present, were delineated using the USACE Wetland Delineation Manual (1987) and the Arid West Supplement (2008b) based on three wetland parameters: hydrophytic vegetation, wetland hydrology, and hydric soils (USACE, 1987, 2008b). In addition, where potential federal wetlands may be present, a visual assessment of potential surface water connectivity was also completed to determine if potential federal wetlands may have a surface water connection to a water of the U.S.

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 OHWM, where present, 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 OHWM indicates the limits of high flows in low- to moderate-discharge events (USACE, 2008a and 2010). See Tables 1 and 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.

5.3. RWQCB Waters of the State

The RWQCB waters of the state are generally delineated based on the limits of the OHWM, where present, 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 Colorado River Basin RWQCB is the state agency responsible for regulating waters of the State throughout the survey area. 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 Waters of the U.S.

5.4. CDFW Jurisdictional Waters

CDFW jurisdiction was delineated to the tops of the channel banks or to the edge of the adjacent riparian or wash vegetation, where present. 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., where present, as well as additional adjacent state jurisdictional streambeds and vegetation.

6. RESULTS

A total of two features were documented within the project site, both of which are expected to fall under the jurisdiction of CDFW and the Lahontan Basin RWQCB (Figure 4, Attachment 1). None of the features are expected to fall under the jurisdiction of the USACE because the drainages have no connectivity to "traditional navigable waters, territorial seas, or interstate waters." Additionally, the drainages are ephemeral and are not "relatively permanent, standing or continuously flowing bodies of water." Table 4 below provides a summary of the total acreage for the drainages documented within the project site and their potential jurisdiction.

Table 4. Summary of Jurisdictional Waters and Streambeds within the Project Site

Drainage ID	USACE Waters of the U.S. (acres)	RWQCB Waters of the State (acres)	CDFW Streambeds (acres)
Drainage 1	0.00	0.03	0.16
Drainage 2	0.00	0.07	0.62
Total	**0.00**	**0.10**	**0.78**

Additional details on the two drainage features are provided below.

- **Drainage 1** is a small ephemeral wash situated in the northwest corner of the project site. This drainage transmits flows generally to the northeast. Based on a review of Google Earth imagery, Drainage 1 originates near Gorgonio Road in the community of Baldy Mesa approximately 2.5 miles south southwest of the project site. Drainage 1 continues northeast outside of the project site, crossing through Bellflower Street, then turning northward to cross under Palmdale Road, terminating at a fence line for a residential neighborhood. Drainage 1 is mostly unvegetated and characterized by fine to coarse sandy soils. Within the project site, this drainage varies in width from approximately 1.5 to 25 feet wide and has a clearly defined bed and bank. OHWM indicators observed include a crested ripples below OHWM, change in vegetative cover at the level of OHWM, and soil development above the level of OHWM.
- **Drainage 2** is a small ephemeral wash situated within the eastern half of the project site. This drainage transmits flows generally to the north. This feature has three branches that eventually converge into a single channel prior to passing outside of the project site. Drainage 2 originates on an undeveloped parcel approximately 0.38 miles south of the project site and continues to the northeast outside of the project site, crossing under Palmdale Road approximately 0.25 miles northeast of the project site to then discharge to a larger channelized ephemeral wash feature. The larger feature passes through the community of South Adelanto and then decreases in size to become part of a broader landscape of braided ephemeral drainages whose ultimate destinations are difficult to trace north of Rancho Road. Drainage 2 has a clearly defined bed and bank. OHWM indicators observed include a crested ripples below OHWM, break in bank slope and change in vegetative cover at the level of OHWM, and soil development above the level of OHWM.

7. SUMMARY AND CONCLUSIONS

The project site includes approximately 0.10 acres of Lahontan Basin RWQCB jurisdictional waters of the State and 0.78 acres of CDFW jurisdictional streambeds. The project site does not support any jurisdictional waters of the U.S. The conclusions presented above represent Aspen's professional opinion based on our knowledge and experience with the USACE, Lahontan Basin RWQCB, and CDFW, including the applicable regulatory guidance documents and manuals. However, the USACE, Lahontan Basin RWQCB, and CDFW have final authority in determining the status and presence of jurisdictional wetlands and waters and the extent of their boundaries.

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Attachment 1
FIGURES

Figure 1

Project Location

Project Site

Scale: 1:2,400
1 inch = 200 feet
0 100 200 feet

Sources: Aspen, 2024; Nearmap, 2023.

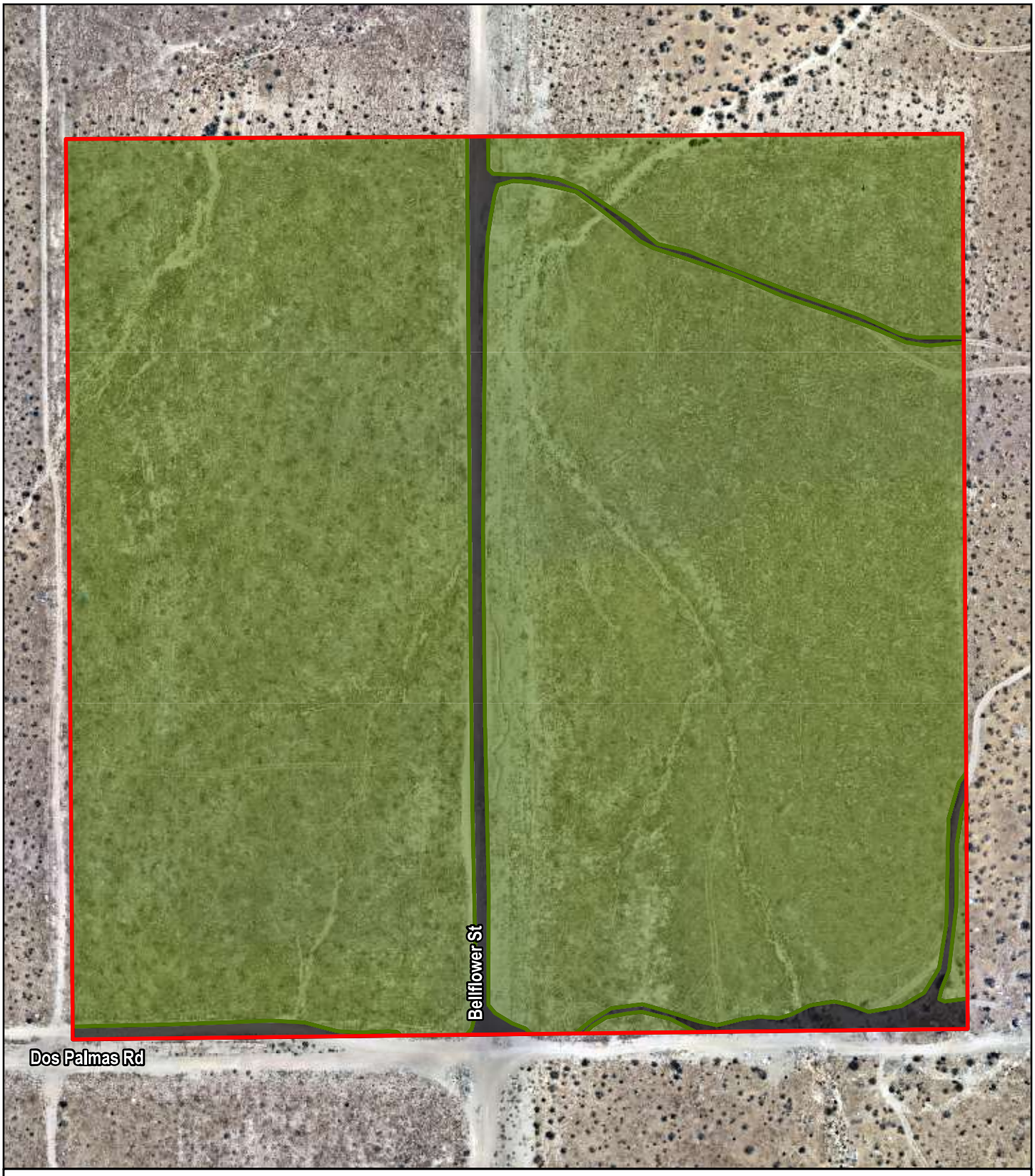

Figure 2

Vegetation and Land Cover

Project Site

Vegetation and Land Cover

Developed

Mediterranean grass grassland

Scale: 1:2,400
1 inch = 200 feet
0 100 200 feet

Sources: Aspen, 2024; Nearmap, 2023.

Figure 3

Soils

Project Site

Cajon Sand, 0 to 2 Percent Slopes (SSURGO)

Scale: 1:2,400
1 inch = 200 feet
0 100 200 feet

Sources: Aspen, 2024; Nearmap, 2023; NRCS, 2024.

Figure 4

Drainages

Project Site
CDFW Streambeds
Waters of the State

Scale: 1:2,400
1 inch = 200 feet
0 100 200 feet

Sources: Aspen, 2024; Nearmap, 2023.

Attachment 2
PHOTO EXHIBIT

Photo 1: Upstream view of drainage 1 near the northern edge of the project site.

Photo 2: Downstream view of drainage 1 near the western edge of the project site.

Photo 3: Downstream view of the lower portion of drainage 2 near the northern site boundary.

Photo 4 Upstream view of drainage 2 near the central portion of the project site.

Photo 5: Downstream view of the eastern branch of drainage 2 from within the southeastern portion of the project site.

Photo 6: Downstream view of the central branch of drainage 2 from within the southeastern portion of the project site.

Photo 7: Downstream view of the western branch of drainage 2 along Bellflower Street in the central portion of the project site.

Photo 8: View of illegal dumping near the downstream end of drainage 2 within the project site.

Photo 9: View of recent illegal dumping of western Joshua trees in the southeast corner of the project site.

Photo 10: Overview of Mediterranean grass grasslands that dominates the project site.

Photo 11: Overview of Mediterranean grass grasslands that dominates the project site.

Photo 12: Photo of the natural open space to the west of the project site.

Attachment 3
FEDERAL NON-WETLAND AND WETLAND WATERS INDICATOR INFORMATION

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

(A) Below OHW	(B) At OHW	(C) Above OHW
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

	(D) Below OHW	(E) At OHW	(F) Above OHW
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 codominent 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 make a determination that wetland hydrology is present)	Secondary Indicator (two or more indicators are required to make a determination that wetland hydrology is present)
Group A – Observation of Surface Water or Saturated Soils		
A1 – Surface Water		
A2 – High Water Table		
A3 – Saturation		
Group B – Evidence of Recent Inundation		
B1 – Water Marks		
B2 – Sediment Deposits		X (Riverine)
B3 – Drift Deposits		X (Riverine)
B6 – Surface Soil Cracks		
B7 – Inundation Visible on Aerial Imagery		
B9 – Water-Stained Leaves		
B10 – Drainage Patterns		
B11 – Salt Crust		
B12 – Biotic Crust		
B13 – Aquatic Invertebrates		
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen Sulfide Odor		
C2 – Dry-Season Water Table		
C3 – Oxidized Rhizospheres along Living		

	Primary Indicator (any one indicator is sufficient to make a determination that wetland hydrology is present)	Secondary Indicator (two or more indicators are required to make a determination that wetland hydrology is present)
Roots		
C4 – Presence of Reduced Iron		
C6 – Recent Iron Reduction in Tilled Soils		
C7 – Thin Muck Surface		
C8 – Crayfish Burrows		
C9 – Saturation Visible on Aerial Imagery		
Group D – Evidence from other Site Conditions or Data		
D3 – Shallow Aquitard		
D5 – FAC-Neutral Test		

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

Table 7. Hydric Soil Indicators for the Arid West*

Hydric Soil Indicators			Hydric Soil Indicators for Problem Soils**
All Soils	**Sandy Soils**	**Loamy and Clay Soils**	
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, Ver. 2.0.
**Indicators of hydrophytic vegetation and wetland hydrology must be present.

OBSERVED PLANT SPECIES LIST AND WETLAND INDICATOR STATUS

Attachment 4. Observed Plant Species List and Wetland Indicator Status		
Latin Name	**Common Name**	**Wetland Indicator Status**
VASCULAR PLANTS		
Dicotyledons		
ASTERACEAE	ASTER FAMILY	
Ambrosia acanthicarpa	Annual burrweed	--
* *Ambrosia dumosa*	Burro weed	--
Ericameria nauseosa	Common rabbitbrush	--
BRASSICACEAE	MUSTARD FAMILY	
* *Sisymbrium altissimum*	Tumble mustard	FACU
* *Sisymbrium irio*	London rocket	--
EUPHORBIACEAE	SPURGE FAMILY	
Croton setiger	Turkey-mullein	--
FABACEAE	LEGUME FAMILY, PEA FAMILY	
Astragalus lentiginosus var. variabilis	Variable milk vetch	UPL
GERANIACEAE	GERANIUM FAMILY	
* *Erodium cicutarium*	Redstem filaree	--
LAMIACEAE	MINT FAMILY	
Salvia carduaceae	Thistle sage	--
POLYGONACEAE	BUCKWHEAT FAMILY	
Eriogonum fasciculatum var. *polifolium*	Mojave Desert California buckwheat	--
ZYGOPHYLLACEAE	CALTROP FAMILY	
Larrea tridentata	Creosote bush	--
Monocotyledons		
AGAVACEAE	CENTURY PLANT FAMILY	
Yucca brevifolia	Western Joshua tree	--
POACEAE	GRASS FAMILY	
* *Schismus* sp.	Unid. schismus	--

Notes:

Species introduced to California are indicated by an asterisk. This list includes only species observed on the site. Other species 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).

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.