ROCKS
BIOLOGICAL CONSULTING



MAJESTIC THOUSAND PALMS PROJECT

BIOLOGICAL RESOURCES AND MSHCP CONSISTENCY REPORT

Riverside County, California

December 9, 2022

Prepared for:
T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, CA 92602
(714) 505-6360

Prepared by:
Rocks Biological Consulting
4312 Rialto Street
San Diego, CA 92107
(619) 701-6798

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1 EXECUTIVE SUMMARY

This report presents the results of a biological resource assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) consistency analysis conducted by Rocks Biological Consulting (RBC) for the Majestic Thousand Palms Project (project or proposed project) in the Thousand Palms community, unincorporated Riverside County, California.

The approximately 145-acre project site is primarily composed of disturbed Sonoran creosote bush scrub. The project site is not located within or adjacent to a Conservation Area as designated by the CVMSHCP. The project site does not have high or moderate potential to support plant or wildlife species listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) or the California Department of Fish and Wildlife (CDFW); however, the project does have moderate potential to support other special-status wildlife species.

Impacts on native vegetation communities and potential impacts on special-status wildlife species as a result of the proposed project will be mitigated to below a level of significance through payment of the CVMSHCP Local Development Mitigation Fees.

The project site supports aquatic resources expected to be considered jurisdictional by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (CWA) (unless such aquatic resources are determined to be non-jurisdictional by the Corps through the approved jurisdictional determination [AJD] process), the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the CDFW pursuant to Section 1600 – 1602 of the California Fish and Game Code (CFGC). Impacts on jurisdictional aquatic resources will be mitigated to below a level of significance with the implementation of the proposed avoidance and mitigation measure included in this report.

The project would be consistent with the goals/objectives of the CVMSHCP with the implementation of the proposed avoidance and mitigation measures included in this report.

2 INTRODUCTION

The purpose of this Biological Resources and CVMSHCP Consistency Report is to summarize the biological data for the proposed project and to document the project's consistency with the goals and objectives of the CVMSHCP. The proposed project consists of the development of one industrial building and supporting off-site improvements.

2.1 PROJECT LOCATION

The project site is in the northwest-central portion of the Thousand Palms community of unincorporated Riverside County, California (Figure 1). The approximately 145-acre project site is located south of 28th Avenue and northeast of Interstate 10 (I-10). It is generally bordered by a recycling facility and vacant lots to the north, residential development to the east, and a mix of community facilities, commercial development, and residential development to the west. The project site is surrounded by sparse commercial development and vacant lots to the south.

The following two Assessor Parcel Numbers (APNs) located east of Rio del Sol are associated with the primary on-site component of the project: 648150034 and 648150035. Off-site improvements to the south and southeast of the primary parcels are included within the project. These improvements will generally occur along 30th Avenue, Roberts Road, El Centro Way, Sierra del Sol, San Miguelito Drive, and Ramon Road.

A majority of the project site is located on undeveloped vacant land in the northwestern region of Thousand Palms. The central, eastern, and southern portions of the project site are developed, predominantly in the form of paved roads associated with residential development.

2.2 PROJECT DESCRIPTION

The proposed project consists of applications for General Plan Amendment (GPA) 220004, Change of Zone (CZ) 2200013, and Plot Plan Number (PPT) 220022 to allow for the development of a 1,238,992 s.f. warehouse building and an Imperial Irrigation District (IID) joint electric substation on an 83.0-acre property located at the northeast corner of Rio Del Sol and 30th Avenue in the Thousand Palms community of unincorporated Riverside County. Proposed GPA 220004 would change the General Plan land use designation on the eastern +/- half of the property from "Medium Density Residential (MDR)" to "Light Industrial (LI)." Proposed CZ 2200013 would change the zoning classification for the eastern +/- half of the property from "Residential – Agriculture (R-A)" to "Manufacturing – Service Commercial (M-SC)." PPT 220022 is proposed to allow for development of the property with a 1,238,992 s.f. warehouse building that includes 20,000 s.f. of office uses at the four corners of the proposed building and 1,218,992 s.f. of warehouse space. Access to the project site would be accommodated by two driveways connecting with Rio Del Sol and one driveway connecting with 30th Avenue. An IID joint electric substation is proposed in the southeastern corner of the site. Off-site, improvements would occur to Rio Del Sol, 30th Avenue, and Robert Road, and utility poles with overhead lines would be installed to connect the proposed on-site IID electric substation with

the electrical grid. Several potential alignments for the off-site utility poles and overhead lines are under consideration by IID, all of which are studied in this report.

2.3 REGULATORY FRAMEWORK

Federal, state, and local agencies have established several regulations to protect and conserve biological resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the project. The regulating agencies make the final determination as to what types of permits are required for the development of the project.

2.3.1 FEDERAL REGULATIONS

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA; 16 U.S.C. § 1531 et seq.), as amended, provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed species. The ESA regulates the "take" of any endangered fish or wildlife species, per Section 9. As development is proposed, the responsible agency or individual landowner is required to consult with the USFWS to assess potential impacts on listed species (including plants) or their critical habitat, pursuant to Sections 7 and 10 of the ESA. USFWS is required to make a determination as to the extent of impact a project would have on a particular species. If it is determined that potential impacts on a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may issue an incidental take statement, following consultation and the issuance of a Biological Opinion. This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the ESA provides for issuance of incidental take permits to non-federal parties with the development of a habitat conservation plan (HCP); Section 7 provides for permitting of federal projects.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. § 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and listed at 50 Code of Federal Regulations (CFR) 10.13. The USFWS enforces the MBTA, which prohibits "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA; 33 U.S.C. § 1344), the Corps is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3 (51 Federal Register [FR] 41217, November 13, 1986; 53 FR 20764, June 6, 1988) and further defined by the 2001 *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* (SWANCC; 531 U.S. 159) decision and the 2006 *Rapanos v. United States* (547 U.S. 715)

decision. The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA (33 U.S.C. § 1341) is required for all Section 404 permitted actions. The RWQCB, a division of the State Water Resources Control Board (SWRCB), provides oversight of the Section 401 certification process in California. The RWQCB is required to provide Water Quality Certification for licenses or permits that authorize an activity that may result in a discharge from a point source into a water of the U.S. Water Quality Certification authorization "is limited to assuring that a discharge from a [f]ederally licensed or permitted activity will comply with water quality requirements" (40 CFR 121.3).

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA (33 U.S.C. § 1342).

2.3.2 STATE REGULATIONS

California Desert Native Plants Act (California Food and Agriculture Code §§ 80001–80201)

The California Desert Native Plants Act prohibits the removal of certain species of California desert native plants on public and privately owned lands without a valid permit from the sheriff or commissioner of the county where collecting would occur. This act applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties.

California Environmental Quality Act

The California Environmental Quality Act (CEQA; California Public Resources Code § 21000 et seq.) was established in 1970 as California's counterpart to the National Environmental Policy Act (NEPA). CEQA requires state and local agencies to identify significant environmental impacts of their actions and to avoid or mitigate those impacts, where feasible.

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity, which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

California Endangered Species Act and Natural Community Conservation Planning Act

The California Endangered Species Act of 1984 (CESA; CFGC § 2050 et seq.), in combination with the California Native Plant Protection Act of 1977 (CFGC § 1900 et seq.), regulates the

listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution; declining populations; diminishing habitat; or unusual scientific, recreational, or educational value. The California Department of Fish and Wildlife (CDFW) is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

In 1991, the California Natural Community Conservation Planning (NCCP) Act (CFGC § 2800 et seq.) was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. The NCCP program was established "to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth." The NCCP Act encourages preparation of plans that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

California Fish and Game Code Sections 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CFGC § 1602). CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement.

California Fish and Game Code Sections 3503, 3511, 3513, 3801, 4700, 5050, and 5515

CDFW protects and manages fish, wildlife, and native plant resources within California. The California Fish and Game Commission and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the CFGC address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the CFGC.

California Native Plant Protection Act (California Fish and Game Code §§ 1900–1913)

The California Native Plant Protection Act requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. The California Native Plant Protection Act prohibits the take of such plants, with certain exceptions.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) provides for statewide coordination of water quality regulations. The SWRCB was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

2.3.3 REGIONAL AND LOCAL PLANS

Coachella Valley Multiple Species Habitat Conservation Plan

The CVMSHCP is a comprehensive habitat conservation/planning program for the Coachella Valley region of Riverside County and is administered by the Coachella Valley Association of Governments (CVAG). The CVMSHCP serves to enhance and maintain biological diversity and ecosystem processes while allowing Covered Activities and other future economic growth to occur within the plan area. The intent of the CVMSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. Through agreements with the USFWS and CDFW, the CVMSHCP designates 27 special-status animal and plant species as Covered Species and protects 240,000 acres of open space. The CVMSHCP establishes Conservation Areas which are determined by a combination of ecological and jurisdictional factors. The CVMSHCP also sets Conservation Goals and Objectives to ensure adequate preservation of the Covered Species and natural communities within the CVMSHCP Reserve System. Additionally, the CVMSHCP also designates areas of Core Habitat, Other Conserved Habitat, Essential Ecological Processes, and Biological Corridors and Linkages. Compliance with the CVMSHCP through payment of the LDMF and concurrence with the CVMSHCP’s Implementing Agreement and biological regulations allows Covered Activities to be granted incidental take authority for select Covered Species and expedited mitigation for cumulative, direct, and indirect project impacts under the plan.

3 METHODS

On March 23, 2022, RBC biologists surveyed the project site and conducted vegetation mapping, a general biological survey, and habitat assessments for special-status plant and wildlife species to comply with CEQA and CVMSHCP requirements. After additional impact areas were added to the project, a subsequent survey for those areas was conducted on September 21, 2022. Additionally, RBC regulatory specialists conducted a formal aquatic resources delineation on the project site on May 25, 2022, with a follow up visit on September 21, 2022 after additional impact areas were added to the project, to identify any areas that may be considered jurisdictional under the Corps pursuant to Section 404 of the CWA; the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act; and the CDFW pursuant to Division 2, Chapter 6, Section 1600 – 1602 of the CFGC.

The general biological survey, vegetation mapping, and habitat assessments were conducted within the approximately 145-acre project site and a surrounding 100-foot buffer (survey area) for a total of approximately 318 acres. The formal aquatic resources delineation was conducted within the approximately 145-acre project site and a surrounding 50-foot buffer (review area) for a total of approximately 204 acres. Note that buffer areas are included in this analysis to assess the potential for special-status species or resources in areas immediately adjacent to the project site that could be impacted by the project analyzed herein. Such information should not be considered comprehensive for all biological resources or aquatic resources that may occur in buffer areas, and buffer mapping is intended only for the project analysis outlined herein; such information is not intended for impact analysis of any potential future projects within or adjacent to project buffer areas.

3.1 DATABASE SEARCH

Prior to conducting field surveys, existing information regarding biological resources present or potentially present within the project area was obtained through a review of pertinent literature and databases, including, but not limited to:

- CDFW California Natural Diversity Database (CNDDB; CDFW 2022a)
- California Native Plant Society (CNPS) Electronic Inventory (CNPS 2022)
- USFWS Special-Status Species Database (USFWS 2022a)
- USFWS Information for Planning and Consulting (IPaC) Database (USFWS 2022b)
- USFWS National Wetlands Inventory (NWI) Database (USFWS 2021)
- Natural Resources Conservation Service (NRCS) Soils Survey Database (NRCS n.d.)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2020)
- CVMSHCP Open Data Portal Habitat Models (CVAG 2022a)
- CVMSHCP Open Data Portal Ecological Processes (CVAG 2022b)

The CNDDB and USFWS Special-Status Species Database queries were conducted for the project site plus a 3-mile radius. The CNPS Electronic Inventory search was conducted for the USGS 7.5' Cathedral City quadrangle containing the project site, plus the eight adjacent quadrangles (i.e., a 'Nine Quads' search) for the project site's elevation range of approximately 220 to 350 feet amsl.

The potential for special-status species, including CVMSHCP Covered Species, to occur within the project site was refined by considering the habitat affinities of each species, field habitat assessments, vegetation mapping, and knowledge of local biological resources. The potential for occurrence tables created for the project (see Section 4) includes all federally and state-listed species, federal and state candidate species for listing, and other state-designated special-status species that have been reported within three miles of the project site (CNDDB and USFWS Special-Status Species Database) and determined to be potentially present in the IPaC Database, as well as all plant species with a California Rare Plant Rank (CRPR) of 1 or 2 that occur within the 'Nine Quads' search (CNPS 2022).

3.2 VEGETATION MAPPING AND GENERAL BIOLOGICAL SURVEYS

RBC biologists conducted vegetation mapping in the field to provide a baseline of the biological resources that occur or have the potential to occur within the project site (Figure 2). RBC conducted vegetation mapping by walking throughout the project site and mapping vegetation communities on aerial photographs at a 1:2400 scale (1 inch = 200 feet).

The extent of each habitat type (delineated as a habitat polygon on the vegetation maps) was calculated using the Geographic Information System (GIS) application ArcGIS Collector. Habitats were classified based on the dominant and characteristic plant species in accordance with vegetation community classifications outlined in Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and consistent with the CVMSHCP vegetation mapping classification.

RBC biologists conducted a general biological survey for plants and wildlife concurrently with vegetation mapping. Photos taken during the general biological survey are provided in Appendix A. Plant species encountered during the field survey were identified and recorded in field notebooks. Plant species that could not be identified were brought to the laboratory for identification using the dichotomous keys and taxonomic treatment outlined in the *Jepson Manual* (Baldwin et al. 2012). A complete list of the vascular plant species observed during all site visits to the project site is presented in Appendix B.

Wildlife species were documented during the field survey by sight, calls, tracks, scat, or other signs, and were recorded in field notebooks. Binoculars (10X42 magnification) were used to aid in the identification of wildlife. In addition to species observed during the surveys, RBC assessed the expected wildlife use of the project site based on known habitat preferences of local species and knowledge of their biogeographic distribution in the region. A complete list of wildlife species observed during all visits to the project site is presented in Appendix C scientific

and common names of wildlife CDFW's *Complete List of Amphibian, Reptile, Bird and Mammal Species in California Special Animals List* (CDFW 2016).

3.3 SPECIAL-STATUS SPECIES SURVEYS

Due to the low suitability of habitat within the project site and its location outside CVMSHCP Conservation Areas and Core Habitat for CVMSHCP Covered Species, no focused surveys for special-status plant or wildlife species were required or conducted as a part of this Biological Resources and CVMSHCP Consistency Report.

3.4 AQUATIC RESOURCES DELINEATION

RBC regulatory specialists conducted a formal aquatic resources delineation within the review area (Figure 3) per the Corps, RWQCB, and CDFW regulations, guidelines, and protocols to identify any areas that may be considered jurisdictional under the Corps pursuant to Section 404 of the CWA, the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the CDFW pursuant to Section 1602 of the CFGC (Appendix D).

Prior to the formal aquatic resources delineation, field maps were created using GIS and a color aerial photograph at a 1 inch = 200 feet scale. RBC staff reviewed USGS NHD (USGS 2020; Figure 4) and topography data, USFWS NWI data (USFWS 2021; Figure 4), and NRCS soils data (NRCS n.d.; Figure 4) to further determine the potential locations of aquatic resources within the review area. RBC also utilized Google Earth Pro to assess the current and historic presence or absence of flows and/or ponding in the review area (Google Earth Pro 2022).

Staff evaluated all areas with depressions, drainage patterns, wetland vegetation, and/or riparian vegetation within the review area for potential jurisdictional status, with focus on the presence of defined channels and/or wetland vegetation, riparian vegetation, soils, and hydrology.

Lateral limits of potential non-wetland waters of the U.S. for the Corps and the RWQCB were identified using field indicators of an Ordinary High Water Mark (OHWM) as outlined in *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (Lichvar & McColley 2008). Additionally, staff examined potential Corps- and RWQCB-jurisdictional wetland areas using the routine determination methods set forth in Part IV, Section D, Subsection 2 of the 1987 *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Corps 2008), and The State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021).

CDFW potential jurisdictional boundaries were determined based on the presence of a lake and/or streambed and riparian habitat or wetland areas supported by (i.e., adjacent or connected to) a lake or streambed, based on the definition of stream/streambed as outlined at

14 California Code of Regulations (CCR) § 1.72 and further clarified in the 1987 *Rutherford v. State of California* decision (188 Cal. App. 3d 1268).

Complete methods are presented in the *Majestic Thousand Palms Aquatic Resources Delineation Report* (RBC 2022; Appendix D).

4 RESULTS

This section discusses the results of the literature review, vegetation mapping, general biological survey, special-status species habitat assessments, and the formal aquatic resources delineation conducted for the project. For the purposes of this report, special-status biological resources are those defined as follows: 1) species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened/endangered population sizes; 2) species and habitat types recognized by local and regional resource agencies as sensitive; 3) habitat areas or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; 4) wildlife corridors and habitat linkages; and/or 5) biological resources that may or may not be considered sensitive, but are regulated under local, state, and/or federal laws.

4.1 PHYSICAL SETTING

The project site is located within the northwestern portion of the unincorporated community of Thousand Palms and primarily consists of disturbed Sonoran creosote bush scrub and developed land. Within the project site, elevations range from approximately 220 to 350 feet amsl and five soil types occur, Carsitas cobbly sand, Carsitas fine sand, Carsitas gravelly sand, Coachella fine sand, and Myoma fine sand (Figure 4). Surrounding land uses include vacant land, agricultural, residential, and commercial development.

4.2 VEGETATION COMMUNITIES AND LAND USES

The survey area supports four vegetation communities and other land covers, as classified in accordance with Holland (1986) and consistent with the CVMSHCP vegetation mapping classification (Table 1). The survey area is comprised of disturbed desert saltbush scrub, disturbed Sonoran creosote bush scrub, disturbed habitat, and developed land.

Table 1. Summary of Vegetation within the Survey Area

Vegetation Community/Land Use	Survey Area (acres)	Project Site (acres)
Developed	143.1	40.2
Disturbed	4.4	<0.1
Disturbed Desert Saltbush Scrub	8.9	0.6
Disturbed Sonoran Creosote Bush Scrub	161.5	104.5
Total	**317.9**	**145.4**

Developed

Developed land supports little to no native vegetation and is composed of human-made structures and paved surfaces (buildings, pavement, etc.).

Developed regions within the project site (40.2 acres) occur along the existing surface streets mostly within the eastern and southern portions (Figure 2). The developed areas consist of roads, residential buildings, a community center, and an elementary school.

Disturbed

Disturbed land is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Riversidean sage scrub). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species.

Disturbed habitat (<0.1 acre) is found in the north-central extent of the project site and is characterized by a complete lack of native species; the area has been denuded of most vegetation and covered in mulch, possibly from past agriculture activities (Figure 2).

Disturbed Desert Saltbush Scrub

Disturbed desert saltbush scrub is similar to desert saltbush scrub; however, it has been substantially physically altered by human disturbance. Disturbed saltbush scrub occurs where fine-textured, poorly drained soils with high salinity and/or alkalinity occur. This community is dominated by one of more species of saltbush (*Atriplex* sp.), including allscale (*Atriplex polycarpa*) and four-winged saltbush (*Atriplex canescens* var. *linearis*), and commonly associated with screwbean mesquite (*Prosopis glandulosa* var. *torreyana*).

Disturbed desert saltbush scrub (0.6 acre) occurs along the southeastern portion of the project site bordering developed habitat (Figure 2). It is dominated by four-winged saltbush and allscale. Due to its proximity to developed habitat, human disturbances, including vehicle paths and tracks, trash dumping, and erosion, are present throughout the community.

Disturbed Sonoran Creosote Bush Scrub

Disturbed Sonoran creosote bush scrub is similar to Sonoran creosote bush scrub; however, it has been substantially physically altered by human disturbance. Disturbed Sonoran creosote bush scrub occurs on slopes, alluvial fans, and valleys and consists of widely spaced stands of creosote bush (*Larrea tridentata*), four-wing saltbush, indigo bush (*Psorothamnus schottii*), white dalea (*P. emoryi*), and other shrub or succulent species.

Disturbed Sonoran creosote bush scrub (104.5 acres) occurs throughout the undeveloped portions of the project site. It is dominated by creosote bush, white dalea, and burrobrush (*Ambrosia dumosa*). Little to no annuals were observed within this habitat during the general biological survey. Human disturbances, including off-road vehicle tracks and trash dumping, is present throughout this community and several linear segments appear to function as roads.

4.3 PLANTS AND WILDLIFE

The project site supports a low diversity of vegetation communities and plant species. A total of 32 plant species (81 percent native, 19 percent non-native) were observed during project biological surveys (Appendix B). A total of 14 bird species, two reptile species, two mammal species, and two invertebrate species were observed or presumed present based on track and/or scat (Appendix C). Twilight/nighttime surveys were not conducted, therefore crepuscular and nocturnal animals are likely under-represented in the project species list; however, habitat assessments were performed for all special-status species to ensure that any potentially present rare species are adequately addressed herein.

4.3.1 SPECIAL-STATUS PLANT SPECIES

As mentioned above and clarified in this section, special-status plant species include those that are: 1) listed or proposed for listing by federal or state agencies as threatened or endangered; 2) CRPR List 1 or 2 (CNPS 2022); or 3) considered rare, endangered, or threatened by the CDFW (CDFW 2022b) or other local conservation organizations or specialists.

The CRPR system was created by the CNPS, which is a statewide resource conservation organization that has developed an inventory of California's sensitive plant species. The CRPR system is recognized by the CDFW and essentially serves as an early warning list of potential candidate species for threatened or endangered status. The CRPR system is categorized as outlined in Table 2.

Table 2. California Rare Plant Rank (CRPR) Definitions

Rank	1A	presumed extirpated in California and rare or extinct elsewhere
	1B	rare, threatened, or endangered in California and elsewhere
	2A	presumed extirpated in California but more common elsewhere
	2B	rare, threatened, or endangered in California but more common elsewhere
	3	plants for which more information needed
	4	plants of limited distribution
Threat	0.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
	0.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
	0.3	Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

No special-status plant species were observed on site. Special-status plants assessed for their potential to occur within the project site are presented in Appendix E. Please note that CRPR 3 and 4 species were omitted from the potential to occur analysis below due to their relatively low threat status. Note that non-listed special-status plant species with low, very low, or no potential to occur are not addressed further in this report. These species have low or no potential for occurrence, no impacts are anticipated on these species.

Threatened and Endangered Plant Species

No federally or state listed threatened or endangered plants were observed during general biological surveys and none have moderate or high potential to occur within or immediately adjacent to the project site due to lack of suitable habitats. Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*; federal endangered [FE]) has low potential to occur on site. There is no designated critical habitat for federally or state listed species on site or adjacent.

Coachella Valley Milkvetch

Coachella Valley milkvetch is found in dune or Sonoran desert scrub habitats where new sand is available, often as a result of the aeolian sand transport system (CVAG 2016). Coachella Valley milkvetch is endemic and limited to California and exhibits pink-purple petals, leaves composed

of leaflets, and a legume-shaped fruit typical of other Fabaceae (Jepson Flora Project 2022). Suitable elevations for Coachella Valley milkvetch range from 130-2,150 feet amsl (CNPS 2022). Development on or adjacent to suitable habitat and habitat degradation via fragmentation, human activities (e.g., off-road vehicle use), and competition with invasives has led to the decline of Coachella Valley milkvetch (CVAG 2016). Coachella Valley milkvetch is a Covered Species under the CVMSHCP.

Coachella Valley milkvetch was not observed during biological surveys. This species is vulnerable to OHV activity, evidence of which is present throughout the site. In addition, Russian thistle (*Salsola tragus*) and Saharan mustard (*Brassica tournefortii*) are both present throughout the site which reduce site suitability for Coachella Valley milkvetch. Biological surveys concluded that Coachella Valley milkvetch has low potential to occur due to anthropogenic disturbance to the on-site habitat.

Other Special-Status Plant Species

No other special-status plant species were observed during general biological surveys. There are records of two other special-status plant species occurring in proximity to the project site (Figure 5A), chaparral sand-verbena (*Abronia villosa* var*. aurita*) and flat-seeded spurge (*Euphorbia platysperma*). These species have low potential to occur due significant disturbances that have limited the persistence of native annuals on site. Horn's milkvetch (*Astragalus hornii* var*. hornii*) has also been recorded within three miles of the project site (Figure 5A); however, this species was not observed on site and does not have potential to occur due to the lack of suitable habitats.

No other special-status plant species have a moderate or high potential to occur on the project site due to the lack of suitable habitat.

4.3.2 SPECIAL−STATUS WILDLIFE SPECIES

Threatened and Endangered Wildlife Species

No federally or state listed wildlife species were documented within or adjacent to the site during biological surveys. One federally and state listed wildlife species, Coachella Valley fringe-toed lizard (*Uma inornata*; federally threatened [FT] and state endangered [SE]), has been recorded within one mile of the project site and the survey area overlaps with Coachella Valley fringe-toed lizard critical habitat per USFWS's IPaC query and Critical Habitat for Threatened and Endangered Species database (2022; Figures 5A-B). This species as low potential to occur on site, as detailed below.

The CNDDB and USFWS databases do not identify any additional federally or state-listed wildlife within or immediately adjacent to the project site (Figures 5A-B). No other federally or state-listed wildlife species have moderate or high potential to occur within the project site due to lack of suitable habitat nor does critical habitat for any of these species occur on site.

Coachella Valley Fringe-toed Lizard

Coachella Valley fringe-toed lizard is found in desert wash habitats, sparse desert, or alkali scrub where fine, windblown sand or dunes for burrowing are present. They are primarily insectivorous, and populations tend to fluctuate with precipitation rates which likely affect food availability. Habitat loss/fragmentation and degradation of the aeolian sand transport system through development has led to the decline of Coachella Valley fringe-toed lizard (Barrows & Heacox 2021). Coachella Valley fringe-toed lizard is a Covered Species under the CVMSHCP.

Though highly degraded, the project site overlaps with critical habitat for Coachella Valley fringe-toed lizard; however, the project has no federal nexus, meaning that the project has no federal funding or authorizations, and critical habitat designations do not restrict project activities without federal nexus. Coachella Valley fringe-toed lizard has low potential to occur on site due to a general lack of windblown sands and dunes, surrounding development, and anthropogenic disturbances, such as off-road vehicle use and garbage.

Other Special-Status Wildlife Species

California horned lark (*Eremophila alpestris actia*) and yellow warbler (*Setophaga petechia*) were the only other special-status wildlife species observed on site during the biological survey. Coachella Valley round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*) is also presumed to be present, see details below. No additional non-federally/state listed special-status wildlife species were observed during biological surveys.

Several non-federally/state listed special-status wildlife species have moderate to high potential to occur on site, including LeConte's thrasher (*Toxostoma lecontei*), prairie falcon (*Falco mexicanus*), vermilion flycatcher (*Pyrocephalus rubinus*), and Palm Springs pocket mouse (*Perognathus longimembris bangsi*).

Burrowing Owl

Burrowing owl is designated a CDFW Species of Special Concern (SSC). Suitable burrowing owl habitat can be found in annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation (Zarn 1974). Suitable burrowing owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface. Burrows are the essential component of burrowing owl habitat; both natural and artificial burrows provide protection, shelter, and nests for burrowing owl (Henny and Blus 1981). Burrowing owl typically use burrows made by rodents, such as ground squirrels or badgers, but may also use human-made structures, such as concrete culverts; concrete, asphalt, or wood debris piles; or openings beneath concrete or asphalt pavement.

Burrowing owls have declined throughout much of their range because of habitat loss due to urbanization, agricultural conversion, and destruction of ground squirrel colonies (Remsen 1978). The incidental poisoning of burrowing owls and the destruction of their burrows during eradication programs aimed at rodent colonies have also caused their decline (Collins 1979; Remsen 1978). Although burrowing owl are relatively tolerant of lower levels of human activity,

human-related impacts, such as shooting and introduction of non-native predators, have negative population impacts. Burrowing owl often nest and perch near roads where they are vulnerable to roadside shooting, fatal car strikes, and general harassment (Remsen 1978). Burrowing owl is a Covered Species under the CVMSHCP.

No burrowing owl(s), burrowing owl sign, or suitable burrows were observed on site during the general biological survey. Burrowing owl has a low potential to occur within the project site based on the lack of suitable burrows. Despite low potential for occupancy on site, the site could support burrowing owls in the future. Coachella Valley round-tailed ground squirrel squirrels are presumed on site and could create burrows suitable to support burrowing owl in the future. If the site were to become occupied by burrowing owl impacts would be potentially significant. However, burrowing owl is a Covered Species and with implementation of mitigation measures, impacts would likely be less than significant.

California Horned Lark

California horned lark is designated a CDFW Watch List (WL) species, which is found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline, and in coniferous or chaparral habitats. It is a common to abundant resident in a variety of open habitats, usually found in habitats where trees and large shrubs are absent. Within Southern California, California horned lark nests on the ground in open fields, grasslands, and rangelands. Horned larks forage in areas with low-growing vegetation and feed primarily on grains and other seeds, shifting to mostly insects in the summer months. California horned lark breeds from March through July, with a peak in activity in May. Pairs do not maintain territories outside of the breeding season and instead form large gregarious, somewhat nomadic flocks.

Threats to California horned lark include habitat destruction and fragmentation. Habitats preferred by California horned lark are easily converted to other landscapes and human uses such as farmland and development. Pesticides have also been shown to poison and kill horned larks (Beason 1995). As a ground nester, California horned lark is vulnerable to mowing in a variety of habitats and pesticide use in agricultural fields. California horned lark is not a Covered Species under the CVMSHCP; however, the plan conserves habitat suitable for this species through the protection of other species (e.g., Palm Springs pocket mouse).

California horned lark individuals were observed within the northern portion of the project site during the general biological survey (Figure 2). On-site disturbed Sonoran creosote bush scrub provides suitable habitat for foraging and nesting; creosote and other shrubs are sparsely dispersed, creating open desert habitat.

Coachella Valley Round-tailed Ground Squirrel

Coachella Valley round-tailed ground squirrel, also known as Palm Springs round-tailed ground squirrel, is designated an SSC. Suitable Coachella Valley round-tailed ground squirrel habitat can be found in the Coachella Valley in eolian dunes and desert scrub containing shrubs for cover and burrowing. Coachella Valley round-tailed ground squirrel prefer to reside in mesquite

thickets and coarse sand/gravel soils of the Lower Sonoran Life Zone (i.e., the arid, hot deserts of the southwestern United States and northwest Mexico). Omnivorous Coachella Valley round-tailed ground squirrels feed on mesquite and creosote seeds, bark, flowers, and leaves as well as annual seeds, cultivated plants, carrion, ants, termites, and grasshoppers.

Coachella Valley round-tailed ground squirrel have declined due to habitat degradation, the conversion of dunes and desert scrub to development/agricultural land, and predation by domestic animals at habitat edges. Off-road vehicle use dismantles burrows and leads to unfavorable soil compaction over time. Habitat suitability for Coachella Valley round-tailed ground squirrel also decreases with the introduction of invasives, such as Saharan mustard, which limit visibility for predator detection. Coachella Valley round-tailed ground squirrel is a Covered Species under the CVMSHCP.

Suitable habitat for Coachella Valley round-tailed ground squirrel was observed within the project site and one round-tailed ground squirrel (subspecies unknown) was detected during the general biological survey. A round-tailed ground squirrel specimen collected in 1954 within approximately 0.25 mile of the survey area was identified as the *chlorus* subspecies in 2009 by James L. Patton at the University of California, Berkely (CDFW 2022a; Museum of Vertebrate Zoology [MVZ] 2022). Based on the proximity to a nearby confirmed collection, the round-tailed ground squirrel observed on site was most likely the *chlorus* subspecies.

LeConte's Thrasher

LeConte's thrasher is designated an SSC and is primarily found in open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats with well-drained soils characteristic of alluvial fans. Though predominately insectivorous, LeConte's thasher occassionally consumes seeds and small vertebrates. LeConte's thrasher hunts on the ground by proding leaf litter or soils to flush prey. Nesting occurs above ground in desert washes within dense cactus or spiny shrub cover.

Habitat loss and degradation threaten LeConte's thrasher populations. Suitable habitat is often manipulated by off-road vehicle use or is converted to agriculture, grazed pasture, or developed land (Shuford et al. 2008). Wildfires which periodically destroy salt bush scrub habitats and soil seed stores further threaten LeConte's thrasher populations. LeConte's thrasher is a Covered Species under the CVMSHCP.

Field assessments confirmed the presence of suitable, disturbed patches of creosote bush scrub; LeConte's thrasher has moderate potential to occur on site.

Palm Springs Pocket Mouse

Palm Springs pocket mouse is designated as an SSC. Suitable burrowing habitat occurs in creosote scrub, desert scrub, and grasslands with sparse to moderately dense vegetative cover. Palm Springs pocket mice prefer loosely packed or sandy soils for burrowing and seed caching and tend to co-occur with creosote bush, brittlebush (*Encelia farinose*), burrobrush, and desert tea (*Ephedra californica*). Palm Springs pocket mice are less common in areas that

have experienced anthropogenic disturbances and soil compaction through off-road vehicle use. Palm springs pocket mouse is a Covered Species under the CVMSHCP.

Suitable habitat for Palm springs pocket mouse was observed within the project site. The project site primarily consists of disturbed Sonoran creosote bush scrub and contains vegetation species (i.e., creosote bush) commonly associated with Palm Springs pocket mouse. Additionally, soil types on site include fine sands (of the Carsitas, Myoma, and Coachella series) which are loosely packed in some regions, though no burrows were observed on site. Palm springs pocket mouse has moderate potential to occur on site based on the presence of disturbed suitable habitat.

Prairie Falcon

Prairie falcon is designated as a WL species when nesting. Suitable prairie falcon habitat is primarily confined to perennial grasslands, savannahs, rangeland, agricultural fields, and desert scrub; however, individuals may occasionally be found in annual grasslands and alpine meadows. Prairie falcon primarily feed on small mammals (especially lagomorphs), birds, and invertebrates; food caching amongst individuals and pairs is common (CLO 2022). Primary threats to prairie falcon include hunting and habitat degradation (CLO 2022). Declines in prey (e.g., ground squirrel) populations due to wildfires and the conversion of grasslands to monotypic agriculture strain food availability and mining activities and human perturbance of nesting sites further decrease prairie falcon survival rates (CLO 2022). Prairie falcon is not a Covered Species under the CVMSHCP however, the plan conserves suitable habitat for this species through the protection of Core Habitat for other species (e.g., Palm Springs pocket mouse).

Suitable disturbed Sonoran creosote bush scrub habitat, and avian and fossorial prey occur on the project site. Perch options on site may be limited; however, surrounding residential and commercial development offer fences and rooftops for hunting. Though suitable escarpments, canyon ledges, or cliffs for nesting are not present on site, such spaces may be available in the adjacent Thousand Palms Conservation Area. Prairie falcon has moderate potential to occur on site based on the presence of suitable foraging habitat.

Vermilion flycatcher

Vermillion flycatcher is designated as an SSC when nesting. Suitable vermillion flycatcher habitat can be found in deserts, scrub, agricultural fields, parks, golf courses, and riparian woodlands, often near a water source. In California, vermillion flycatchers are known to exist in cottonwood-willow woodlands, residential areas, and parks. They commonly nest in willows (*Salix* spp.), cottonwoods (*Populus* spp.), mesquites (*Prosopis* spp.), and western sycamores (*Platanus racemosa*), and occasionally in non-native trees, such as elms (*Ulmus* spp.), olives (*Olea europaea*), black locusts (*Robinia pseudoacacia*), tamarisks (*Tamarix* spp.), and eucalyptus (*Eucalyptus* spp.). Vermillion flycatchers prefer to nest along channels and are negatively impacted by development and anthropogenic water use. Depletion of desert ground water and

habitat destruction are of concern in certain regions. Flying insects (e.g., members of Diptera, Coleoptera, Orthoptera, and Lepidoptera) make up the majority of the vermillion flycatcher's diet. Vermillion flycatcher is not a Covered Species under the CVMSHCP however, the plan conserves suitable habitat for this species through the protection of Core Habitat for other species (e.g., southwestern willow flycatcher [*Empidonax traillii extimus*]).

The project site provides suitable habitat for vermillion flycatcher in the form of disturbed Sonoran creosote bush scrub. Mesquite and tamarisk, both suitable for nesting, were observed within the project site. Additionally, a detention basin in the southwestern portion of the survey area, agricultural land to the north, and golf courses to the south of the site offer potential water sources. Vermillion flycatcher has a moderate potential to occur on site.

Yellow Warbler

Yellow warbler is designated an SSC when nesting. In southern California, yellow warbler nests in open-canopy lowland and foothill riparian woodlands dominated by cottonwoods, alders (*Alnus* spp.), or willows up to 8,000 feet amsl. The species is typically found in California from April to October where it holds a small territory for nesting and foraging. The yellow warbler forages for insects and spiders in the upper canopy of deciduous trees and shrubs. It builds a cup nest 2-16 feet off the ground in in alders, cottonwoods, and willows and usually lays 4-5 eggs (Garrett and Dunn 1981). Yellow warblers are threatened by habitat destruction and fragmentation, especially of riparian habitats, and brood-parasitism by brown-headed cowbirds.

Yellow warbler was observed during a general biological survey along developed land adjacent to a detention basin within the southwestern portion of the project site (Figure 2).

4.3.3 WILDLIFE MOVEMENT AND CORRIDORS

A wildlife corridor can be defined as a physical feature that links wildlife habitat, often consisting of native vegetation that joins two or more larger areas of similar wildlife habitat. Corridors enable migration, colonization, and genetic diversity through interbreeding and are therefore critical for the movement of animals and the continuation of viable populations. Corridors can consist of large, linear stretches of connected habitat (such as riparian vegetation) or as a sequence of stepping-stones across the landscape (discontinuous areas of habitat such as wetlands and ornamental vegetation), or corridors can be larger habitat areas with known or likely importance to local fauna.

Regional corridors are defined as those linking two or more large patches of habitat, and local corridors are defined as those allowing resident animals to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development. A viable wildlife migration corridor consists of more than an unobstructed path between habitat areas. Appropriate vegetation communities must be present to provide food and cover for both transient species and resident populations of less mobile animals. There must also be a sufficient lack of stressors and threats within and adjacent to the corridor for species to use it successfully.

The project site is situated in the northwest and central regions of the unincorporated community of Thousand Palms to the northwest of a developed residential area. Undeveloped land and a recycling facility border the project site to the north and sparse commercial development surrounds the site to the south. Additional residential development and vacant lots lie east of the project site. The southern off-site improvements portion of the project site is unlikely to be used by wildlife species as corridors given that it is primarily developed and surrounded by residential development. The northern primary project parcels are undeveloped and likely convey wildlife movement in some capacity given that they are adjacent to larger undeveloped tracts of land; however, areas to the north of the project site likely function as the primary regional corridors given their increased distance from development and direct connectivity to high quality habitat. CDFW's Terrestrial Connectivity dataset (CDFW 2019) confirm these assessments, assigning land within the project site as connectivity ranks 3 (connections with implementation flexibility) and 1 (limited connectivity opportunity), whereas lands north and northeast of the project site are assigned rank 4 (conservation planning linkages). Although lands northeast of the project site are within the Thousand Palms Linkage, the CVMSCHP does not designate land within the project site as a linkage or biological corridor (CVAG 2022b).

4.4 JURISDICTIONAL AQUATIC RESOURCES

Based on the formal aquatic resources delineation, the review area supports three aquatic resources (Non-Wetland Water [NWW-]1, NWW-2, and NWW-3; Figure 3; Appendix D) that are expected to be jurisdictional by the Corps (unless determined to be non-jurisdictional by the Corps through the AJD process), RWQCB, and CDFW. Specifically, the review area supports approximately 3.55 acres (2,647 linear feet) of potential non-wetland waters of the U.S./State jurisdictional by the Corps and RWQCB (Table 3, Figure 3), and approximately 5.81 acres (2,626 linear feet) of vegetated streambed and 0.01 acre (22 linear feet) of unvegetated streambed jurisdictional by the CDFW (Table 4, Figure 3).

Table 3. Aquatic Resource Summary: Corps/RWQCB

Aquatic Resource Name	Cowardin Code	Presence of OHWM/ Wetland	Dominant Vegetation[1]	Location (lat, long)	Acre(s)	Linear Feet
NWW-1[2]	R6	Yes/No	Disturbed Sonoran Creosote Bush Scrub	33.831993, -116.400647	0.13	586
NWW-2[2]	R6	Yes/No	Disturbed Sonoran Creosote Bush Scrub	33.830496, -116.395071	2.84	462
NWW-3[2]	R6	Yes/No	Disturbed Desert Saltbush Scrub	33.819516, -116.386009	0.58	1,599
Total[3]					**3.55**	**2,647**

[1] *See Figure 2 for all vegetation communities present within each aquatic resource.*

[2] Aquatic resource may be deemed non-jurisdictional by the Corps through the AJD process.
[3] Acreages and linear feet were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.

Table 4. Aquatic Resource Summary: CDFW

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Location (lat, long)	Acre(s)	Linear Feet
NWW-1	Vegetated Streambed	Disturbed Sonoran Creosote Bush Scrub	33.831986, -116.400651	0.16	586
NWW-2	Vegetated Streambed	Disturbed Sonoran Creosote Bush Scrub	33.830552, -116.395140	4.76	462
NWW-3	Unvegetated Streambed	Developed – Concrete	33.819924, -116.386011	0.01	22
	Vegetated Streambed	Disturbed Desert Saltbush Scrub		0.88	1,578
Total[1]				**5.82**	**2,647**

[1] Acreages and linear feet were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.

The review area also supports one swale (Swale [S-]1) and one basin (Basin [B-]1) that are not expected to be jurisdictional by the Corps, RWQCB, or CDFW (Figure 3).

Complete results are presented under separate cover in the *Majestic Thousand Palms Aquatic Resources Delineation Report* (RBC 2022; Appendix D).

4.5 HABITAT CONSERVATION PLANS/NATURAL COMMUNITIES CONSERVATION PLANS

The project site is within the CVMSHCP Plan Area. The project's consistency with the CVMSHCP is discussed in Section 7 of this report.

5 IMPACTS

Direct impacts are caused by the project and occur at the same time and place as the project. Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct impact. Direct impacts would include direct losses to native habitats, potential jurisdictional waters, wetlands, and special-status species; and diverting natural surface water flows. Direct impacts on wildlife could include injury, death, and/or harassment of listed and/or special-status species. Direct impacts could also include the destruction of habitats necessary for species breeding, feeding, or sheltering. Direct impacts on plants can include crushing of adult plants, bulbs, or seeds.

Indirect impacts can result from project-related activities where biological resources are affected in a manner that is not direct. Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (domestic cats and dogs) and plants (weeds). As noted in Section 2, the survey area included a 100-foot buffer to identify nearby biological resources and to aid in assessment of potential indirect impacts on protected resources, if present.

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. Such impacts taken individually may be minor but are collectively significant in light of regional impacts.

CEQA Guidelines Form J thresholds of significance have been used to determine whether project implementation would result in a significant direct, indirect, and/or cumulative impact. These thresholds are based on Appendix G of the state CEQA Guidelines (CCR Title 14, Division 6, Chapter 3, Sections 15000–15387). A significant biological resources impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance;

- Conflict with the provisions of an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan.

5.1 NATIVE VEGETATION

The proposed project will result in permanent impacts on disturbed Sonoran creosote bush scrub, disturbed desert saltbush scrub, disturbed habitat, and developed land. As requested by the client, the impacts are shown and discussed separately for the two main project parcels and the off-site improvements area. (Figure 6; Table 5).

Table 5. Majestic Thousand Palms Project Site Vegetation Communities/Land Use Impacts

Vegetation Community/Land Use	**Eastern Project Parcel Impacts** (APN 648150034) **(acres)**	**Western Project Parcel Impacts** (APN 648150035) **(acres)**	**Off-Site Improvements Area Impacts (acres)**	**Total Project Site Impacts (acres)**
Developed	0	1.5	38.7	40.2
Disturbed	<0.1	0	0	<0.1
Disturbed Desert Saltbush Scrub	0	0	0.6	0.6
Disturbed Sonoran Creosote Bush Scrub	38.6	40.7	25.2	104.5
Total	**38.6**	**42.3**	**64.4**	**145.4**

The proposed project will result in permanent impacts on disturbed Sonoran creosote bush scrub and disturbed habitat within the eastern project parcel and disturbed Sonoran creosote bush scrub habitat and developed land within the western project parcel. The off-site improvements associated with the project will result in impacts on disturbed desert saltbush scrub, disturbed Sonoran creosote bush scrub, and developed land.

Although impacts on native vegetation communities will occur with project implementation, such impacts can be offset through payment of CVMSHCP Local Development Mitigation Fees that would be used to acquire and maintain high-quality habitat within the CVMSHCP Reserve. With payment of such fees, impacts on native vegetation communities would be less than significant.

5.2 PLANT SPECIES IMPACT ANALYSIS

5.2.1 THREATENED AND ENDANGERED PLANT SPECIES

As discussed in Section 4.3.1, the proposed project does not have potential to impact Coachella Valley milkvetch, a federally endangered and CRPR 1B.2 species, due to lack of

suitable habitat on site. No other federally or state listed plant species will be affected as no others are present or have moderate to high potential to occur on site.

Further, Coachella Valley milkvetch is a Covered Species under the CVMSHCP, and the project site falls within the CVMSHCP area. With permitting and approval of the project by the County of Riverside, a CVMSHCP Local Permittee, and payment of the CVMSHCP development fees, the project would receive Take Authorization, allowing for direct take of Coachella Valley milkvetch and its habitat. The CVMSHCP does not require projects to comply with any avoidance and minimization measures specific to this species. Coachella Valley milkvetch is considered protected and adequately conserved through the CVMSHCP's designation of Conserved Areas; therefore, if present, impacts to federally and/or state-listed plant species would be considered less than significant.

5.2.2 OTHER SPECIAL-STATUS PLANT SPECIES

As discussed in Section 4.3.1 of this report, no other special-status plants were observed within the project site, and none have a moderate to high potential to occur. Therefore, the proposed project will not result in significant impacts on other special-status plant species.

5.3 WILDLIFE IMPACT ANALYSIS

5.3.1 THREATENED AND ENDANGERED WILDLIFE SPECIES

Though highly degraded, the project site overlaps with critical habitat for Coachella Valley fringe-toed lizard (FT, SE). While not anticipated to occur, this species is known from the region and has minor potential to be present on site. Coachella Valley fringe-toed lizard is a Covered Species under the CVMSHCP. With permitting and approval of the project by the County of Riverside, a CVMSHCP Local Permittee, and payment of the CVMSHCP development fees, the project would receive Take Authorization, allowing for direct take of Coachella Valley fringe-toed lizard and its habitat. The CVMSHCP does not require projects to comply with any avoidance and minimization measures specific to this species. Coachella Valley fringe-toed lizard is considered protected and adequately conserved through the CVMSHCP's designation of Conserved Areas; therefore, impacts to Coachella Valley fringe-toed lizard would be considered less than significant.

Although the area is mapped as critical habitat for Coachella Valley fringe-toed lizard by USFWS, the project has no federal nexus, meaning that the project has no federal funding or authorizations. Critical habitat designations do not restrict project activities without federal nexus. No additional federal and/or state listed wildlife species have moderate to high potential to occur on site or have critical habitat mapped on site; therefore, the proposed project will not result in significant impacts on federal and/or state listed wildlife species.

5.3.2 OTHER SPECIAL-STATUS WILDLIFE SPECIES

California horned lark (WL), yellow warbler (SSC), and Coachella Valley round-tailed ground squirrel (SSC) were the only non-listed special status wildlife species detected during project

biological surveys. The project also has moderate potential to support LeConte's thrasher (SSC), prairie falcon (WL), vermilion flycatcher (SSC), and Palm Springs pocket mouse (SSC), and low potential to support burrowing owl (SSC).

With project implementation, direct impacts on California horned lark, LeConte's thrasher, yellow warbler, prairie falcon, vermilion flycatcher, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel could occur in the form of habitat destruction. However, LeConte's thrasher, yellow warbler, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel are Covered Species under the CVMSHCP; through conformance with CVMSHCP regulations and guidelines, their habitat is considered adequately conserved through the establishment of CVMSHCP Conservation Areas. With payment of CVMSHCP Local Development Mitigation Fees (Section 6.1) to mitigate impacts on native vegetation, habitat-based impacts on LeConte's thrasher, yellow warbler, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel would be considered less than significant. Although not considered Covered Species under the CVMSHCP, suitable habitat for California horned lark, prairie falcon, and vermillion flycatcher is conserved through the protection of other species' habitat. Any losses in habitat for these species would not pose a substantial decrease of overall habitat across these species' range. Additionally, adult avian species would likely flush during initial project activities, and with implementation of nesting bird protections (MM-3), potential impacts on nests would be avoided.

With project implementation, direct impacts on burrowing owl could occur in the form of habitat destruction. However, burrowing owl is a Covered Species under the CVMSHCP; through conformance with CVMSHCP regulations and guidelines, burrowing owl habitat is considered adequately conserved through the establishment of CVMSHCP Conservation Areas. With payment of CVMSHCP Local Development Mitigation Fees (Section 6.1) to mitigate impacts on native vegetation, habitat-based impacts on burrowing owl would be considered less than significant. Direct impacts on burrowing owl may also result from potential death, injury, or harassment of nesting birds, their eggs, and their young. Injury or mortality to burrowing owl occurs most frequently during the vegetation clearing stage of construction and affects eggs, nestlings, and recently fledged young that cannot safely avoid equipment. Therefore, pre-construction surveys would be required to avoid potential impacts on this species, as discussed in Section 6.2.

Special-status wildlife species, such as burrowing owl, California horned lark, LeConte's thrasher, yellow warbler, prairie falcon, vermilion flycatcher, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel, have potential to occur on site, and mitigation, minimization, and avoidance of impacts on special-status wildlife species are detailed in Section 6 of this report. With adherence to the mitigation measures provided in this report, impacts on special-status wildlife species resulting from the project would be less than significant.

5.4 NESTING BIRDS

Impacts on nesting birds are prohibited by the MBTA and CFGC. The proposed project has the potential to impact nesting birds if vegetation is removed or ground disturbing activities are initiated during the nesting season (generally February through July). All habitat and land cover within the project site has the potential to support nesting birds. The disturbed desert scrub communities have the potential to support a variety of avian species. Ground nesting by species such as California horned lark may also occur in the open areas across the project site and on-site vegetation may be utilized by scrub-nesting species, such as verdin (*Auriparus flaviceps*) and Anna's hummingbird (*Calypte anna*), which were both observed on site (Appendix C). To avoid impacts on nesting birds, pre-construction nesting bird surveys, as described in Section 6.3 of this report, are required. With the implementation of this avoidance measure, impacts on nesting birds would be less than significant.

5.5 WILDLIFE CORRIDORS

The project site is situated in the northwestern and central regions of the unincorporated community of Thousand Palms; undeveloped areas occur immediately north and west of the site. The project site is approximately a half mile southwest of the Thousand Palms Conservation Area and Thousand Palms Linkage as designated by the CVMSHCP; however, the site itself is not identified as a Conservation Area or wildlife corridor. The area southwest of the project site is highly developed; though the site is proximal to a Conservation Area to the northeast, it would not provide significant habitat connectivity considering its other urban borders. The ephemeral drainages on site showed evidence of off-road vehicle use and are unlikely to serve as local wildlife corridors. The project site likely does not function as a significant regional or local wildlife corridor given its disturbed state and proximity to development relative to other undeveloped land north of the site. Significant impacts on wildlife corridors are not anticipated with project implementation.

5.6 JURISDICTIONAL AQUATIC RESOURCES

Based upon the results of the *Majestic Thousand Palms Aquatic Resources Delineation Report* (RBC 2022; Appendix D), the proposed project would permanently impact approximately 2.24 acres (897 linear feet) of non-wetland waters of the U.S./State that are potentially jurisdictional by the Corps (unless determined to be non-jurisdictional by the Corps through the AJD process) and RWQCB, respectively (Table 6; Figure 6), and 3.78 acres (897 linear feet) of vegetated streambed that is potentially jurisdictional by the CDFW (Table 7; Figure 6).

Permitting through the Corps, RWQCB, and CDFW would be required for impacts on non-wetland waters of the U.S. jurisdictional by the Corps; non-wetland waters of the State jurisdictional by the RWQCB; and vegetated streambed jurisdictional by the CDFW. The project applicant will be responsible for acquiring the necessary authorizations required by the Corps, RWQCB, and CDFW and associated compensatory mitigation requirements, if applicable.

As requested by the client, the impacts are shown and discussed separately for the two main project parcels and the off-site improvements area (Figure 6; Tables 6 and 7).

Table 6. Potential Corps/RWQCB Aquatic Resource Impacts

Aquatic Resource Name	Eastern Project Parcel Impacts (APN 648150034)		Western Project Parcel Impacts (APN 648150035)		Off-Site Improvements Area Impacts		Total Project Site Impacts[1]	
	Acres	*Linear Feet*	*Acres*	*Linear Feet*	*Acres*	*Linear Feet*	*Acres*	*Linear Feet*
NWW-12	0.13	586	0	0	0	0	0.13	586
NWW-22	0	0	0	0	2.11	311	2.11	311
Total[1]	**0.13**	**586**	**0**	**0**	**2.11**	**311**	**2.24**	**897**

[1]Acreages and linear feet were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.
[2]Aquatic resource may be deemed non-jurisdictional by the Corps through the AJD process.

Table 7. Potential CDFW Aquatic Resource Impacts

Aquatic Resource Name	Aquatic Resource Type	Eastern Project Parcel Impacts (APN 648150034)		Western Project Parcel Impacts (APN 648150035)		Off-Site Improvements Area Impacts		Total Project Site Impacts[1]	
		Acres	*Linear Feet*	*Acres*	*Linear Feet*	*Acres*	*Linear Feet*	*Acres*	*Linear Feet*
NWW-1	Vegetated Streambed	0.16	586	0	0	0	0	0.16	586
NWW-2	Vegetated Streambed	0	0	0	0	3.62	311	3.62	311
Total[1]		**0.16**	**586**	**0**	**0**	**3.62**	**311**	**3.78**	**897**

[1]Acreages and linear feet were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.

5.7 LOCAL POLICIES AND ORDINANCES

The project will adhere to CVMSHCP guidelines and procedures and would therefore not conflict with local policies or ordinances. The project site is approximately 1,200 feet from the CVMSHCP designated Thousands Palm Conservation Area. Due to the project site's proximity to a Conservation Area, it is recommended that the project adhere to CVMSHCP Section 4.5 *Land Use Adjacency Guidelines* (Guidelines; CVAG 2016). While not required, adherence to best management practices provided in the Guidelines will ensure that inadvertent disturbance does not occur outside the limits of the proposed project. Section 4.5 of the CVMSHCP states:

> *The purpose of [the Guidelines] is to avoid or minimize indirect effects from development adjacent to or within the Conservation Areas. Adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects*

are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators, such as dogs and cats. Edge effects will also be addressed through reserve management activities such as fencing.

These Guidelines include:

Drainage – Proposed development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared to existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.

Toxics – Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate bio-products such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area.

Lighting – For proposed development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.

Noise – Proposed development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA L_{eq} hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines included in the Implementation Manual.

Invasives – Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials listed in Table 4-112 of the CVMSHCP to the maximum extent feasible. The plants listed in Table 4-113 of the CVMSHCP are considered invasive and shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agency Concurrence.

Barriers – Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area.

Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage.

Grading/Land Development – Manufactured slopes associated with site development shall not extend into adjacent land in a Conservation Area.

5.8 INDIRECT IMPACTS ON BIOLOGICAL RESOURCES

In the context of biological resources, indirect impacts are those effects associated with developing areas adjacent to native open space. Potential indirect effects associated with development include water quality impacts from site drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

As discussed above, Section 4.5 of the CVMSHCP (Land Use Adjacency Guidelines) addresses indirect effects associated with locating projects (particularly development) adjacent to or within the CVMSHCP Conservation Areas. To minimize potential edge effects, the Land Use Adjacency Guidelines are to be implemented in conjunction with reserve management activities (e.g., fencing). The proposed project is not located directly adjacent to any CVMSHCP Conservation Areas as defined by the CVMSHCP (i.e., the site does not share a parcel border with a Conservation Area). As such, the proposed project will not result in significant indirect effects on sensitive biological resources within designated Conservation Areas.

Undeveloped land north, west, and east of the project site may be subject to indirect impacts resulting from the proposed project; however, with the implementation of best management practices outlined in the Guidelines (MM-5), indirect impacts on adjacent native habitats would be minimized and avoided. Additionally, although adjacent habitat may be suitable for nesting birds, pre-construction nesting bird surveys detailed in Section 6.3 (MM-3) of this report would cover habitat in buffer areas surrounding the impact footprint so that impacts on nesting birds would be avoided. Therefore, indirect impacts resulting from the proposed project would be less than significant.

5.9 CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. Such impacts taken individually may be minor but are collectively significant in light of regional impacts. The CVMSHCP allows for the implementation of Covered Activities within the plan area; potential cumulative effects resulting from Covered Activities were fully considered in the CVMSHCP so that compliance with CVMSHCP guidelines would not result in significant cumulative effects. Therefore, through compliance with the CVMSHCP, any cumulative project impacts would be less than significant.

6 AVOIDANCE AND MITIGATION MEASURES

The following discussion provides project-specific avoidance/mitigation measures for actual or potential impacts on biological resources.

6.1 DEVELOPMENT FEES

MM-1 – Per the CVMSHCP Section 5.2.1.1 *Local Development Mitigation Fee*, the project will be conditioned by the lead agency to pay a mitigation fee for the costs of mitigating impacts of the project. Based on the local development mitigation fee schedule for fiscal year 2023 (effective July 1, 2022 – June 30, 2023), fees for residential density less than 8.0 dwelling units per acre would be $1,515 per acre and fees for commercial and/or industrial development would be $6,725 per acre (Coachella Valley Conservation Commission 2022). The 'Local Development Mitigation Fees' are subject to change following each fiscal year. As such, the applicant shall refer to the updated fee amounts once the schedule for project construction is finalized. See Table 8 below for the current Local Development Mitigation Fee per building type.

Table 8. Local Development Mitigation Fee

Building Type	Fee as of July 1, 2022
Commercial/Industrial/Residential per acre	$6,725
0-8 units per acre	$1,515
8.1 – 14 units per acre	$630
More than 14 units per acre	$280

Source: Coachella Valley Conservation Commission 2022

6.2 BURROWING OWL

The project site has low potential to support burrowing owl; however, habitat suitability could change and the species is known from the region. As such, the applicant shall follow standard mitigation and avoidance measures for burrowing owl as follow:

MM-2A – No less than 14 days prior to the onset of construction activities, a qualified biologist shall survey the construction limits of the project area and a 500-foot buffer for the presence of burrowing owls and occupied nest burrows. A second survey shall be conducted within 24 hours prior to the onset of construction activities. The surveys shall be conducted in accordance with the most current CDFW survey methods. If burrowing owls are not observed during the clearance survey, no additional conditions related to burrowing owl are required.

If burrowing owl is documented on site, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg laying and incubation, or that juveniles from the occupied burrows are foraging independently and capable of independent survival. Disturbance buffers shall be implemented by a qualified biologist in accordance with the recommendations

included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). A biologist shall be contracted to perform monitoring during all construction activities approximately every other day. The definitive frequency and duration of monitoring shall be dependent on whether it is the breeding versus non-breeding season and the efficacy of the exclusion buffers, as determined by a qualified biologist and in coordination with CDFW.

If burrowing owl is observed during the non-breeding season (September 1 through January 31) or confirmed to not be nesting, a non-disturbance buffer between the project activities and the occupied burrow shall be installed by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012).

MM-2B – If avoidance is not possible, either directly or indirectly, a Burrowing Owl Relocation and Mitigation Plan (Plan) shall be prepared and submitted for approval by CDFW. Once approved, the Plan would be implemented to relocate non-breeding burrowing owls from the project site. The Plan shall detail methods for relocation of burrowing owls from the project site, provide guidance for the monitoring and management of the replacement burrow sites and associated reporting requirements, and ensure that a minimum of two suitable, unoccupied burrows are available off site for every burrowing owl or pair of burrowing owls to be relocated.

The project applicant shall submit at least one burrowing owl pre-construction survey report to the satisfaction of the CDFW to document compliance with this standard condition. For the purposes of this standard condition, 'qualified biologist' is a biologist who meets the requirements set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).

6.3 NESTING BIRDS

The project site has the potential to support nesting birds. To avoid impacts on nesting birds the following mitigation measure is required:

MM-3 – To ensure compliance with CFGC sections 3503, 3503.5, and 3513 and to avoid potential impacts to nesting birds, vegetation clearing and ground disturbing activities shall be conducted outside of the bird nesting season (generally February through July). If avoidance of the nesting season is not feasible, then a qualified biologist will conduct a nesting bird survey within three (3) days prior to any disturbance of the site, including but not limited to vegetation clearing, disking, demolition activities, and grading.

If active nests are identified, the biologist shall establish suitable buffers around the nests depending on the level of activity within the buffer and the species observed, and the buffer areas shall be avoided until the nests are no longer occupied, and the juvenile birds can survive independently from the nests. A letter report or mitigation plan in conformance with applicable state and federal law (i.e., appropriate follow-up surveys, monitoring schedules, construction, and noise barriers/buffers, etc.) shall be prepared and include proposed measures to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the CDFW and/or the USFWS as applicable for review and approval and implemented to the satisfaction of those agencies. The project biologist shall verify and approve that all

measures identified in the report or mitigation plan are in place prior to and/or during construction. During construction activities, the qualified biologist shall continue biological monitoring at a frequency recommended by the qualified biologist using their best professional judgement. If nesting birds are detected, avoidance and minimization measures may be adjusted, and construction activities stopped or redirected by the qualified biologist using their best professional judgement to avoid take of nesting birds.

6.4 JURISDICTIONAL AQUATIC RESOURCES MITIGATION

As noted above, the proposed project would permanently impact 2.24 acres of non-wetland waters of the U.S./State jurisdictional by the Corps (unless determined to be non-jurisdictional by the Corps through the AJD process) and RWQCB, respectively, and 3.78 acres of vegetated streambed jurisdictional by the CDFW. Impacts on Corps-, RWQCB-, and CDFW-jurisdictional aquatic resources would require Section 404 authorization from the Corps, a Section 401 Water Quality Certification from the RWQCB, and a Streambed Alteration Agreement from the CDFW. Additionally, compensatory mitigation may be required by the regulatory agencies to offset the proposed project impacts. With implementation of the following mitigation measure, impacts on Corps-, RWQCB-, and CDFW-jurisdictional waters would be reduced to less than significant. The following mitigation for jurisdictional aquatic resources is required:

MM-4 – Prior to any ground-disturbing activity near jurisdictional aquatic resources, applicable permits shall be obtained through the Corps, RWQCB, and CDFW for impacts on jurisdictional aquatic resources. Based on the results of the aquatic resources delineation for the proposed project, the proposed project would permanently impact 2.24 acres of Corps-jurisdictional non-wetland waters of the U.S. (unless determined to be non-jurisdictional by the Corps through the AJD process) and RWQCB-jurisdictional non-wetland waters of the State (i.e., NWW-1 and NWW-2). Additionally, the proposed project would permanently impact 3.78 acres of CDFW-jurisdictional vegetated streambed (i.e., NWW-1 and NWW-2). The Applicant shall implement/comply with all permit conditions and mitigation measures required by the resource agencies regarding impacts on their respective jurisdictions.

A minimum 1:1 mitigation ratio (2.24 acres Corps/2.24 acres RWQCB/3.78 acres CDFW) is typically required, though ratios may be higher. Compensatory mitigation to offset impacts on jurisdictional aquatic resources may be implemented through on-site or off-site, permittee-responsible mitigation, in-lieu fee (ILF) program or mitigation bank credit purchase, or a combination of these options depending on availability.

The regulatory agencies will make the final determination of the final compensatory mitigation requirements during the permit evaluation process.

6.5 BEST MANAGEMENT PRACTICES AND ADJACENCY IMPACT AVOIDANCE

The project site is approximately 1,200 feet from the CVMSHCP designated Thousands Palm Conservation Area. In addition, undeveloped, native habitat occurs adjacent to the project site to the north, west, and east. To avoid impacts to native habitats and sensitive resources as well as inadvertent disturbance to areas outside the limits of the proposed project activities, the

following Best Management Practices (BMPs) shall be implemented in accordance with Section 4.5 of the CVMSHCP.

MM-5 – The project shall implement the following BMPs to avoid impacts on adjacent habitat:

- Stormwater systems shall be installed to prevent discharge of chemicals, petroleum products, exotic plant materials, toxins, and other harmful materials into the adjacent native habitats.
- If the application of toxic chemicals or bio-products (e.g., manure) is deemed necessary, operating procedures that ensure the containment of the chemical to the project site shall be followed.
- Measures shall be enacted to prevent construction and development based light pollution from affecting the surrounding native habitats.
- If the proposed project construction generates noise greater than 75 dBA L_{eq}, sound barriers and setbacks shall be incorporated.
- Landscape treatments within the project site shall not include invasive, non-native plants and instead, shall be primarily composed of native vegetation.
- The project shall incorporate barriers, such as native landscaping, rocks/boulders, fencing, walls and/or signage, to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in adjacent native habitats.
- Limits shall be clearly demarcated to ensure that construction activities, including grading, does not occur outside project boundaries.

7 CVMSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed project's compliance with biological aspects of the CVMSHCP. Specifically, this analysis evaluates the proposed project's consistency with CVMSHCP Section 4.3 Conservation Areas, Section 4.4 Required Avoidance, Minimization and Mitigation Measures, and Section 4.5 Land Use Agency Guidelines, and assesses results of a search of the CVMSHCP Open Data Portal Habitat Models.

The project site is not located within a Conservation Area or Core Habitat for any of the CVMSHCP Covered Species. Thousand Palms Conservation Area is the nearest preserved open space, located approximately 1,200 feet northeast of the project site's north-central extent (Figure 7).

The proposed project represents a Covered Activity under the CVMSHCP. As described in Section 7.1 of the CVMSHCP, take authorization will be provided for Covered Activities outside of Conservation areas including "*development permitted or approved by Local Permittees. This includes, but is not limited to, new projects approved pursuant to county and city general plans".*

7.1 CVMSHCP CONSERVATION OBJECTIVES

The project site is not located within a Conservation Area; therefore, it is not subject to the Conservation Objectives set forth in Section 4.3 of the CVMSHCP.

7.2 LAND USE ADJACENCY GUIDELINES

Section 4.5 of the CVMSHCP serves to enforce the avoidance or minimization of indirect effects associated with projects adjacent to or within designated Conservation Areas. A project site is considered adjacent if it shares a border with any parcel of the Conservation Area. The project site is approximately 1,200 feet from the Thousands Palm Conservation Area at its most proximal border therefore adherence to the Guidelines is not required; however, adherence to the best management practices within the Guidelines is recommended to avoid and minimize impacts on adjacent native habitat and as a precautionary measure to ensure compliance with the CVMSHCP (MM-5).

7.3 CVMSHCP MODELED HABITAT

The Coachella Valley Conservation Commission (CVCC) maintains an open data portal of the species habitat models used in preparation of the CVMSHCP (CVAG 2022a). The habitat models indicate occurrence data, occupied habitat, and potential habitat for each MSCHP Covered Species. The models provide predictive distribution maps based on the assumption that a particular species has a high probability of occurrence in suitable habitats within its range. The project site supports modeled habitat for six special-status species, as shown in Table 9.

Table 9. Assessment of CVMSHCP Modeled Habitat Within the Project Site

Species	Assessment of On-Site Modeled Habitat
Coachella Valley Jerusalem Cricket (*Stenopelmatus cahuilaensis*)	On-site habitat lacks adequate moisture needed to support this species. Wind deposited sand is limited due to surrounding developed land.
Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*)	On-site habitat has been disturbed by off-road vehicle use and introduction on non-native plants. The natural aeolian sand transport system, which is essential for population viability, has been disrupted by adjacent development.
Flat-tailed horned lizard (*Phrynosoma mcallii*)	On-site habitat is surrounded by disturbed/developed land which reduces likelihood of species occurrence due to increased direct threats, such as predation by domestic/feral pets and urban adapted native species (e.g., coyote, raven, etc.).
LeConte's thrasher (*Toxostoma lecontei*)	On-site habitat is suitable for this species.
Palm Springs pocket mouse (*Perognathus longimembris bangsi*)	On-site habitat is suitable for this species.
Coachella Valley round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*)	On-site habitat is suitable, and species is presumed present.

Although Modeled Habitat for six Covered Species occurs on site, actual site conditions observed during RBC's general biological surveys vary from those predicted by CVMSHCP modeling. CVMSHCP modelling identifies Coachella Valley Jerusalem cricket, Coachella Valley milkvetch, and flat-tailed horned lizard as having suitable habitat on site; however, during biological surveys, these species were not identified as having moderate to high potential to occur due to low suitability of habitat. Field assessments confirmed habitat suitability for LeConte's thrasher, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel in concurrence with CVMSHCP modeling. The project site is not located within a Conservation Area; therefore, focused surveys for species with modeled habitat are not required.

7.4 CONCLUSION OF CVMSHCP CONSISTENCY

With the implementation of MM-1 through MM-5, the proposed project will be consistent with the biological requirements of the CVMSHCP. As a Covered Activity located outside of and not directly adjacent to designated Conservation Areas, no additional regulatory compliance measures are required, and the proposed project would comply with the CVMSHCP.

8 REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, & T. J. Rosatti (2012). *The Jepson Manual: Vascular Plants of California* (2nd Eds.). Thoroughly Revised and Expanded. University of California Press, Berkeley, California.

Barrows, C. W., & Heacox, S. A. (2021). Forty years later: Monitoring and status of the endangered Coachella Valley Fringe-toed lizard. *California Fish and Wildlife Journal*, (CESA Special Issue), 243–257. https://doi.org/10.51492/cfwj.cesasi.14

Beason, R. C. (2020). Horned Lark (*Eremophila alpestris*). Birds of the World. https://doi.org/10.2173/bow.horlar.01

Belenky, L., Wolf, S., & Byler, K. (2014). *A Petition to List the Flat-tailed Horned Lizard (Phrynosoma mcallii) as Endangered under the California Endangered Species Act*. Retrieved July 2022, from https://www.biologicaldiversity.org/species/reptiles/flat-tailed_horned_lizard/pdfs/FTHL_CESA_Petiton_June_9_2014.pdf

California Department of Fish and Wildlife (CDFW). (n.d.). *California Wildlife Habitat Relationships System Life History Accounts and Range Maps.* California Department of Fish and Wildlife. Retrieved September 2022 from https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range

California Department of Fish and Wildlife (CDFW). (2016). *Complete List of Amphibian, Reptile, Bird and Mammal Species in California.* Sacramento, California: California Wildlife Habitat Relationships Program.

California Department of Fish and Wildlife (CDFW). (2019). *Biogeographic Information and Observation System (BIOS) – Terrestrial Connectivity, Areas of Conservation Emphasis (ACE).* Retrieved November 18, 2022 from https://apps.wildlife.ca.gov/bios/

California Department of Fish and Wildlife (CDFW). (2022a). *California Department of Fish and Game Natural Diversity Database.* California Department of Fish and Wildlife. Retrieved July 2022, from https://wildlife.ca.gov/Data/CNDDB

California Department of Fish and Wildlife (CDFW). (2022b). *Special Animals List.* California Department of Fish and Wildlife (CDFW). Retrieved July 2022, from https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline

California Native Plant Society (CNPS), Rare Plant Program. (2022). *California Native Plant Society Rare Plant Inventory.* California Native Plant Society (CNPS). Retrieved July 2022, from http://www.rareplants.cnps.org/

California State Water Resources Control Board. (2021). *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.* State Water Resources Control Board. Retrieved July 2022, from https://www.waterboards.ca.gov/water_issues/programs/cwa401/

Coachella Valley Association of Governments (CVAG). (2007). *Coachella Valley Multiple Species Habitat Conservation Plan.* Retrieved September 2022, from https://cvmshcp.org/plan-documents/

Coachella Valley Association of Governments (CVAG). (2016). *Final Major Amendment to the Coachella Valley Multiple Species Habitat Conservation Plan.* Retrieved September 2022, from https://cvmshcp.org/plan-documents/

Coachella Valley Association of Governments (CVAG). (2022a). *All Species Habitat Models.* CVMSHCP Open Data. Retrieved September 2022, from https://mshcp-cvag.hub.arcgis.com/datasets/CVAG::all-species-habitat-models/explore?location=33.726777%2C-116.195497%2C9.92

(2022b). *Linkages and Biological Corridors.* CVMSHCP Open Data. Retrieved December 2022, from https://mshcp-cvag.hub.arcgis.com/search?tags=ecological%20processes

Coachella Valley Conservation Commission Biological Working Group (CVCC) & University of California, Riverside Center for Conservation Biology (UCR). (2014). *Coachella Valley Multiple Species Habitat Conservation Plan & Natural Community Conservation Plan Coachella Valley Jerusalem Cricket Biological Monitoring Report.* Coachella Valley Conservation Commission. Retrieved September 2022, from https://cvmshcp.org/Monitoring/BMP/CVJerusalemCricket.pdf

Coachella Valley Conservation Commission (CVCC). (2022). *Local Development Mitigation Fee*. Coachella Valley Conservation Commission. Retrieved August 2022, from https://cvmshcp.org/local-development-mitigation-fee/

Cornell Lab of Ornithology (CLO). (2019). *All About Birds*. Cornell Lab of Ornithology. Retrieved August 2022, from http://www.allaboutbirds.org

Environmental Laboratory. (1987). Corps of Engineers Wetlands Delineation Manual. [Technical Report Y-87-1]. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station.

Garrett, K. and J. Dunn. (1981). *Birds of Southern California: Status and Distribution*. Los Angeles Audubon Society. 407 pp.

Google Earth Pro V 7.3.4.8642. (2022). Thousand Palms, California. 33°49'50.69"N 116°23'48.38"W. Eye alt 4,343 feet

Holland, R. F. (1986). *Preliminary descriptions of the terrestrial natural communities of California*. State of California, the Resources Agency, Dept. of Fish and Game.

Jepson Flora Project (eds.) (2022). Jepson eFlora. Retrieved August 2022 from http://ucjeps.berkeley.edu/eflora/

Lichvar, R., & McColley, S. M. (2008). *A field guide to the identification of the Ordinary High Water Mark (OHWM) in the Arid West region of the Western United States: a delineation manual* (Technical Report ERDC/CRREL TR-08-12). Hanover, New Hampshire: U.S. Army Engineers Research and Development Center.

Museum of Vertebrate Zoology (MVZ), University of California, Berkley. (2022). *Collections Database: MVZ:Mamm:125680*. Retrieved October 7, 2022, from http://arctos.database.museum/guid/MVZ:Mamm:125680

Natural Resources Conservation Service (NRCS). (n.d.). *Web Soil Survey.* Retrieved July 2022, from https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Roberts Jr, F. M., (2004). *The vascular plants of western Riverside County, California: an annotated checklist.* FM Roberts Publications.

Rocks Biological Consulting (RBC). (2022). *Majestic Thousand Palms Aquatic Resources Delineation Report.*

Shuford, W. D., Gardali, T., & Fittin, S. D. (2008). LeConte's Thrasher (*Toxostoma lecontei*) (San Joaquin population). In *California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California* (Vol. 1, pp. 321–326). Essay, Western Field Ornithologists.

U.S. Army Corps of Engineers (Corps). (2008). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Technical Report ERDC/EL TR-08-28). Vicksburg, Mississippi: U.S. Army Engineers Research and Development Center.

U.S. Fish and Wildlife Service (USFWS). (2021). *National Wetlands Inventory Surface Waters and Wetlands*. U.S. Fish and Wildlife Service. Retrieved May 2022, from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

U.S. Fish and Wildlife Service (USFWS). (2022a). *Critical Habitat for Threatened and Endangered Species.* U.S. Fish and Wildlife Service. Retrieved July 2022, from https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77

U.S. Fish and Wildlife Service (USFWS). (2022b). *Information for Planning and Consulting (IPaC).* Retrieved July 2022, from https://ipac.ecosphere.fws.gov

U.S. Geological Survey (USGS). (2020). *The National Map, Advanced Viewer.* U.S. Department of Interior. Retrieved May 2022, from https://viewer.nationalmap.gov/advanced-viewer/

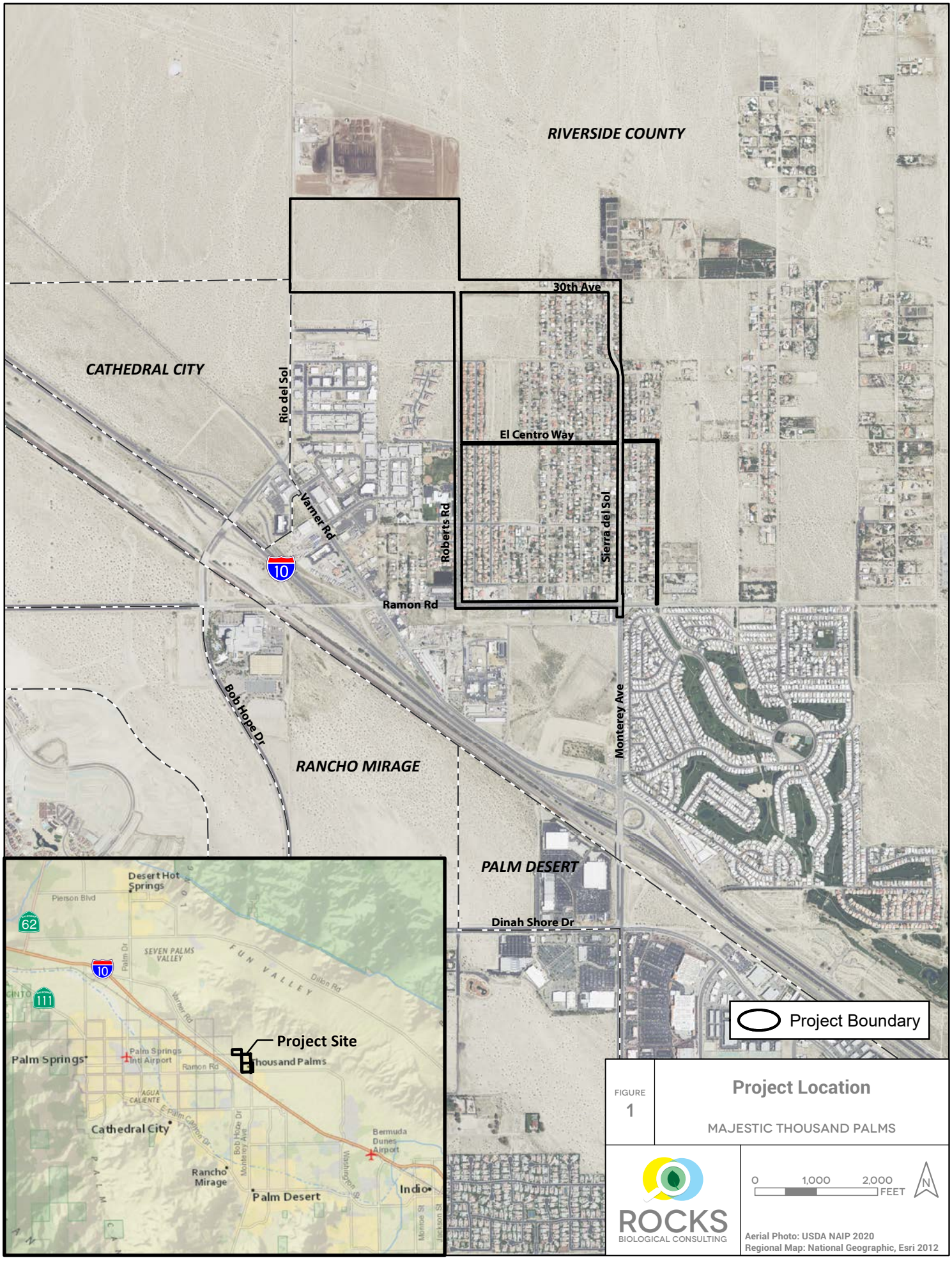


FIGURE 1

Project Location

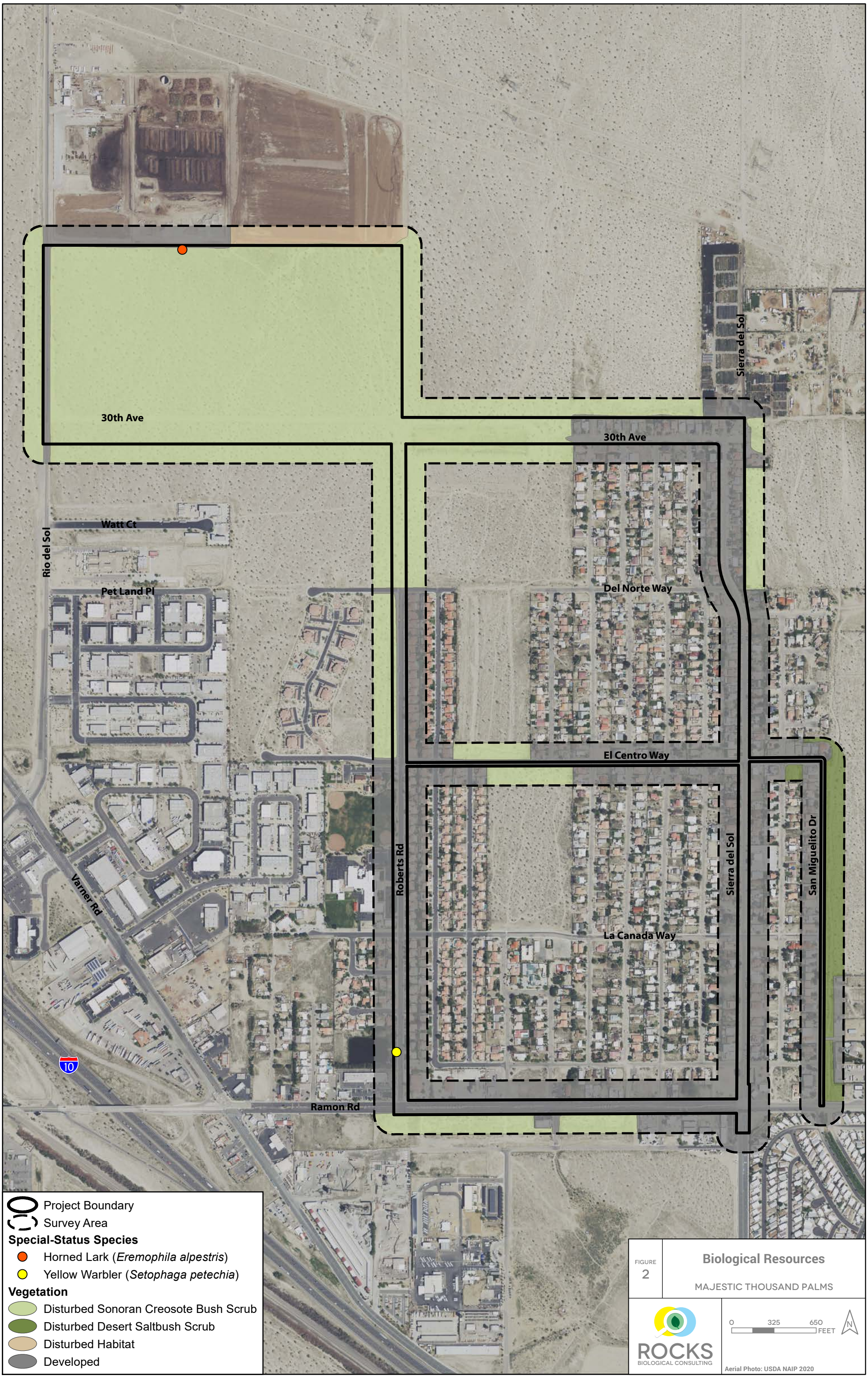
MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Aerial Photo: USDA NAIP 2020
Regional Map: National Geographic, Esri 2012


30th Ave
30th Ave
Sierra del Sol
Watt Ct
Rio del Sol
Pet Land Pl
Del Norte Way
El Centro Way
Roberts Rd
Sierra del Sol
San Miguelito Dr
La Canada Way
Varner Rd
10
Ramon Rd
Project Boundary
Survey Area
Special-Status Species
Horned Lark (Eremophila alpestris)
Yellow Warbler (Setophaga petechia)
Vegetation
Disturbed Sonoran Creosote Bush Scrub
Disturbed Desert Saltbush Scrub
Disturbed Habitat
Developed
FIGURE
2
Biological Resources
MAJESTIC THOUSAND PALMS
ROCKS
BIOLOGICAL CONSULTING
0
325
650
FEET
N
Aerial Photo: USDA NAIP 2020

Project Boundary
Review Area
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Flow Direction

Corps/RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)

CDFW Vegetated Streambed

Disturbed Sonoran Creosote Bush Scrub (4.92 ac)

Other Features [1]

Swale

[1] Features anticipated to be non-jurisdictional.

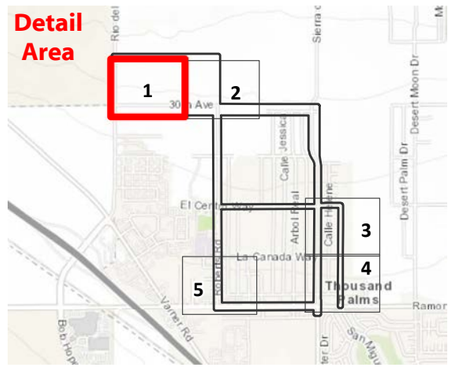


FIGURE 3

PAGE 1 OF 5

Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/11/2022

Aerial Photo: Nearmap 2022

Project Boundary
Review Area
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Flow Direction

Corps/RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)

CDFW Vegetated Streambed

Disturbed Sonoran Creosote Bush Scrub (4.92 ac)

NWW-2

ODP 2

WDP 2

ODP 5

NWW-2

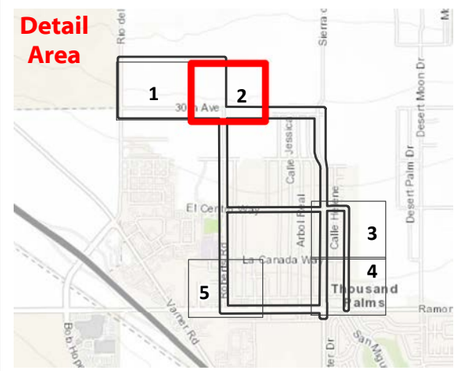


FIGURE 3

PAGE 2 OF 5

Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

N

Date: 10/11/2022

Aerial Photo: Nearmap 2022

Project Boundary
Review Area
Flow Direction

Corps/RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)
Non-Wetland Waters (Offsite)

CDFW Vegetated Streambed

Disturbed Desert Saltbush Scrub (0.88 ac)
Disturbed Desert Saltbush Scrub (Offsite)

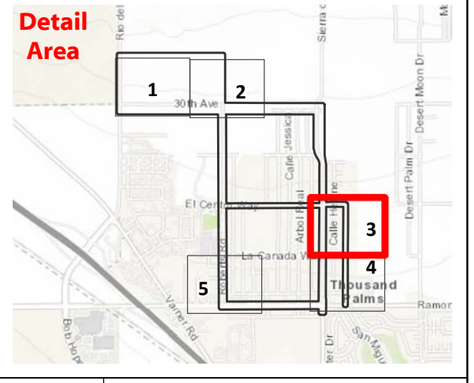


FIGURE 3
PAGE 3 OF 5

Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/11/2022
Aerial Photo: Nearmap 2022

- Project Boundary
- Review Area
- OHWM Datasheet Point (ODP)
- Wetland Data Form Point (WDP)
- Flow Direction

Corps/RWQCB Aquatic Resources

- Non-Wetland Waters (3.54 ac)
- Non-Wetland Waters (Offsite)
- Non-Wetland Waters - Concrete (0.01 ac)

CDFW Vegetated Streambed

- Disturbed Desert Saltbush Scrub (0.88 ac)
- Disturbed Desert Saltbush Scrub (Offsite)

CDFW Unvegetated Streambed

- Developed - Concrete (0.01 ac)

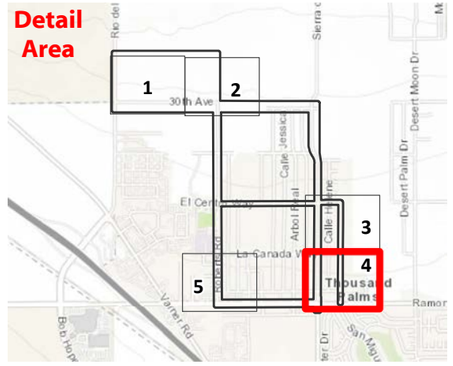


FIGURE 3

PAGE 4 OF 5

Aquatic Resources

MAJESTIC THOUSAND PALMS

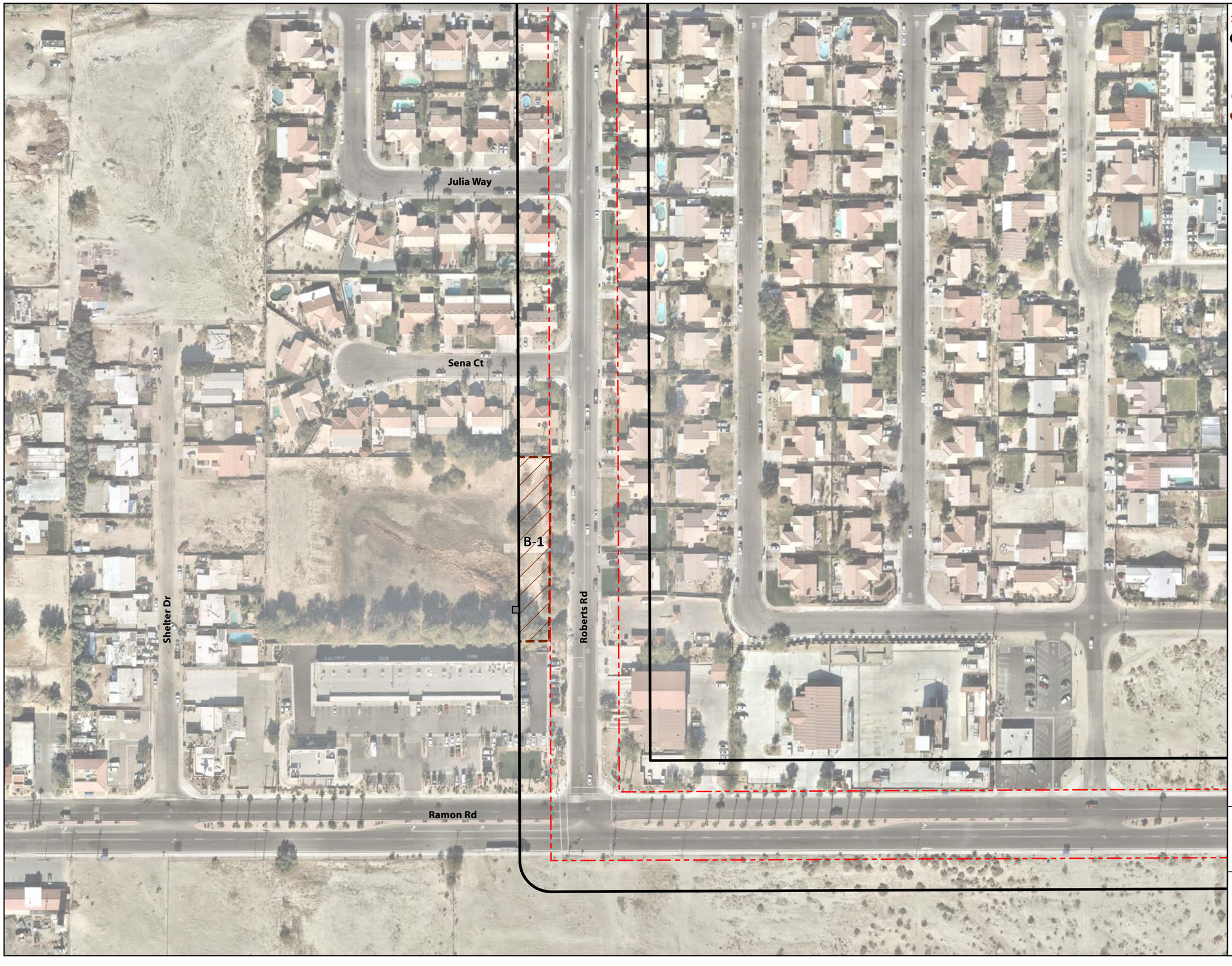
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/11/2022

Aerial Photo: Nearmap 2022



Project Boundary
Review Area
Concrete Outfall
Flow Direction

Other Features [1]

Basin

[1] Features anticipated to be non-jurisdictional.

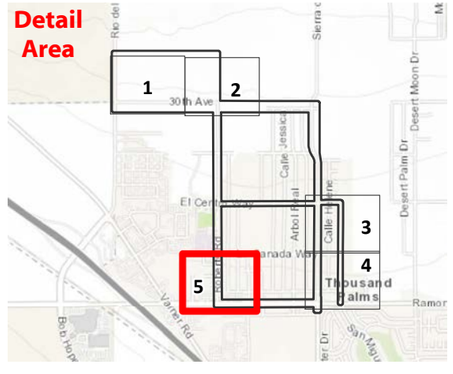


FIGURE 3

PAGE 5 OF 5

Aquatic Resources

MAJESTIC THOUSAND PALMS

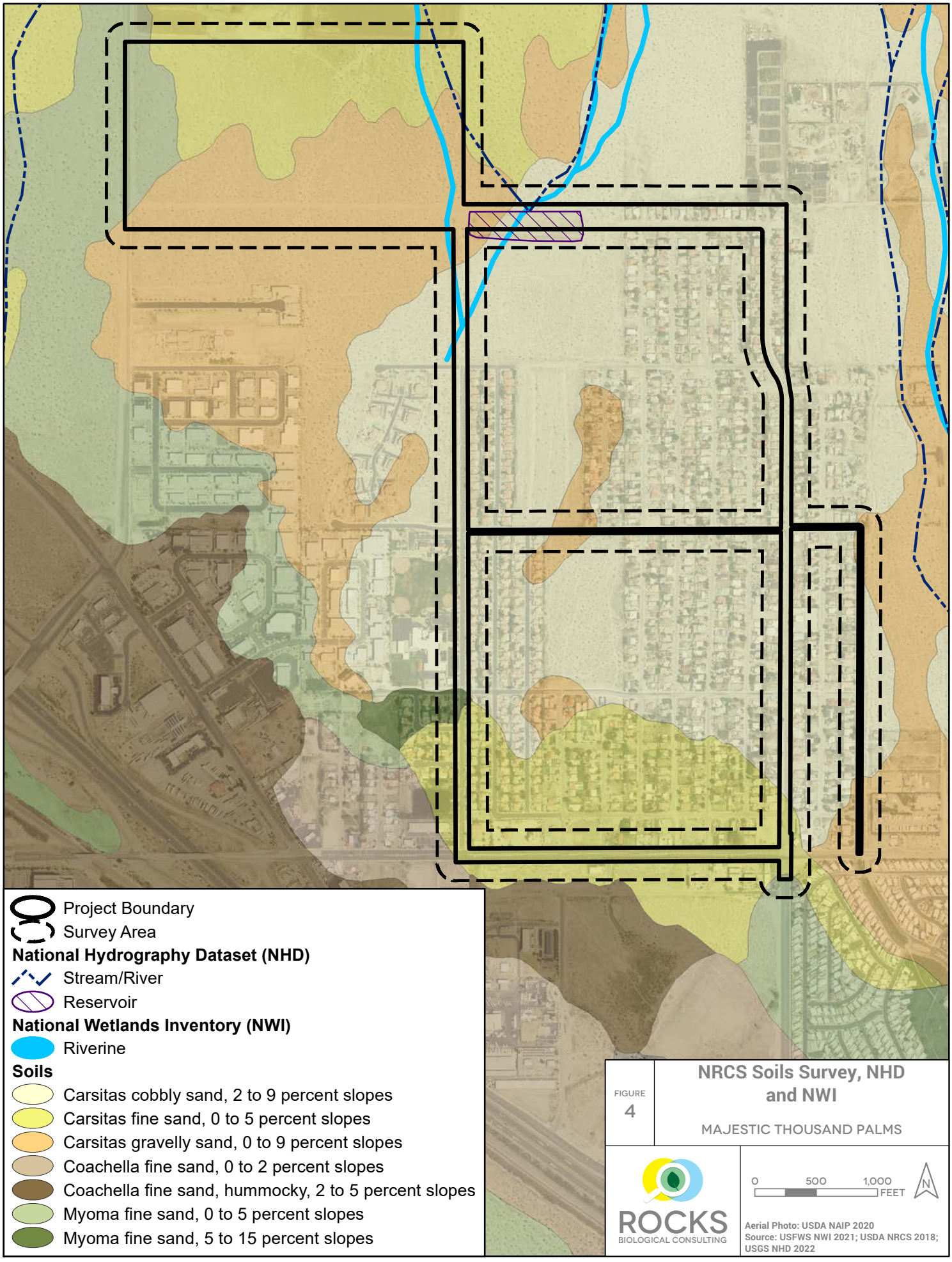
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/11/2022

Aerial Photo: Nearmap 2022


Project Boundary
Survey Area
National Hydrography Dataset (NHD)
Stream/River
Reservoir
National Wetlands Inventory (NWI)
Riverine
Soils
Carsitas cobbly sand, 2 to 9 percent slopes
Carsitas fine sand, 0 to 5 percent slopes
Carsitas gravelly sand, 0 to 9 percent slopes
Coachella fine sand, 0 to 2 percent slopes
Coachella fine sand, hummocky, 2 to 5 percent slopes
Myoma fine sand, 0 to 5 percent slopes
Myoma fine sand, 5 to 15 percent slopes
FIGURE 4
NRCS Soils Survey, NHD and NWI
MAJESTIC THOUSAND PALMS
ROCKS BIOLOGICAL CONSULTING
0 500 1,000 FEET
N
Aerial Photo: USDA NAIP 2020
Source: USFWS NWI 2021; USDA NRCS 2018; USGS NHD 2022

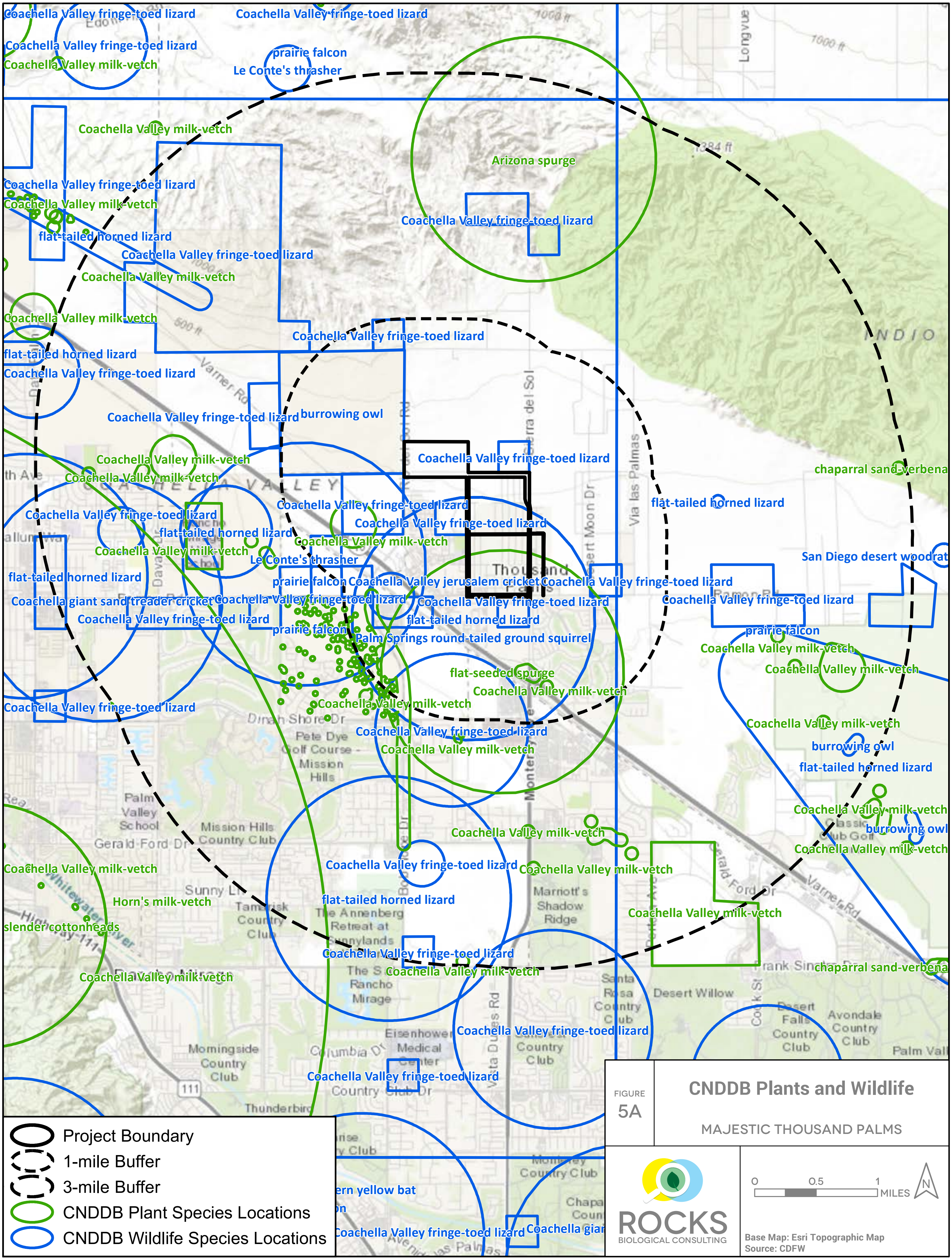


FIGURE 5A

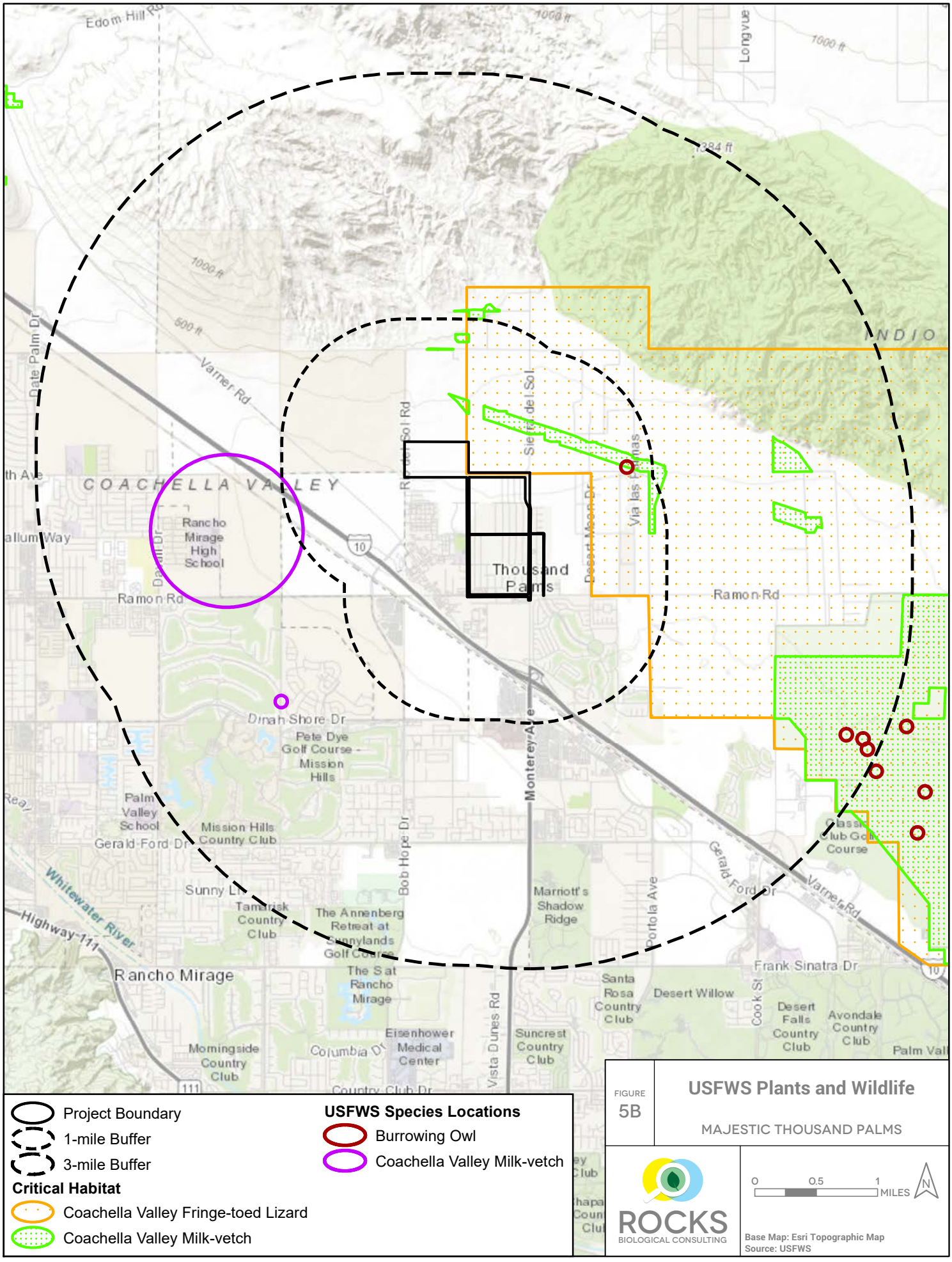
CNDDB Plants and Wildlife

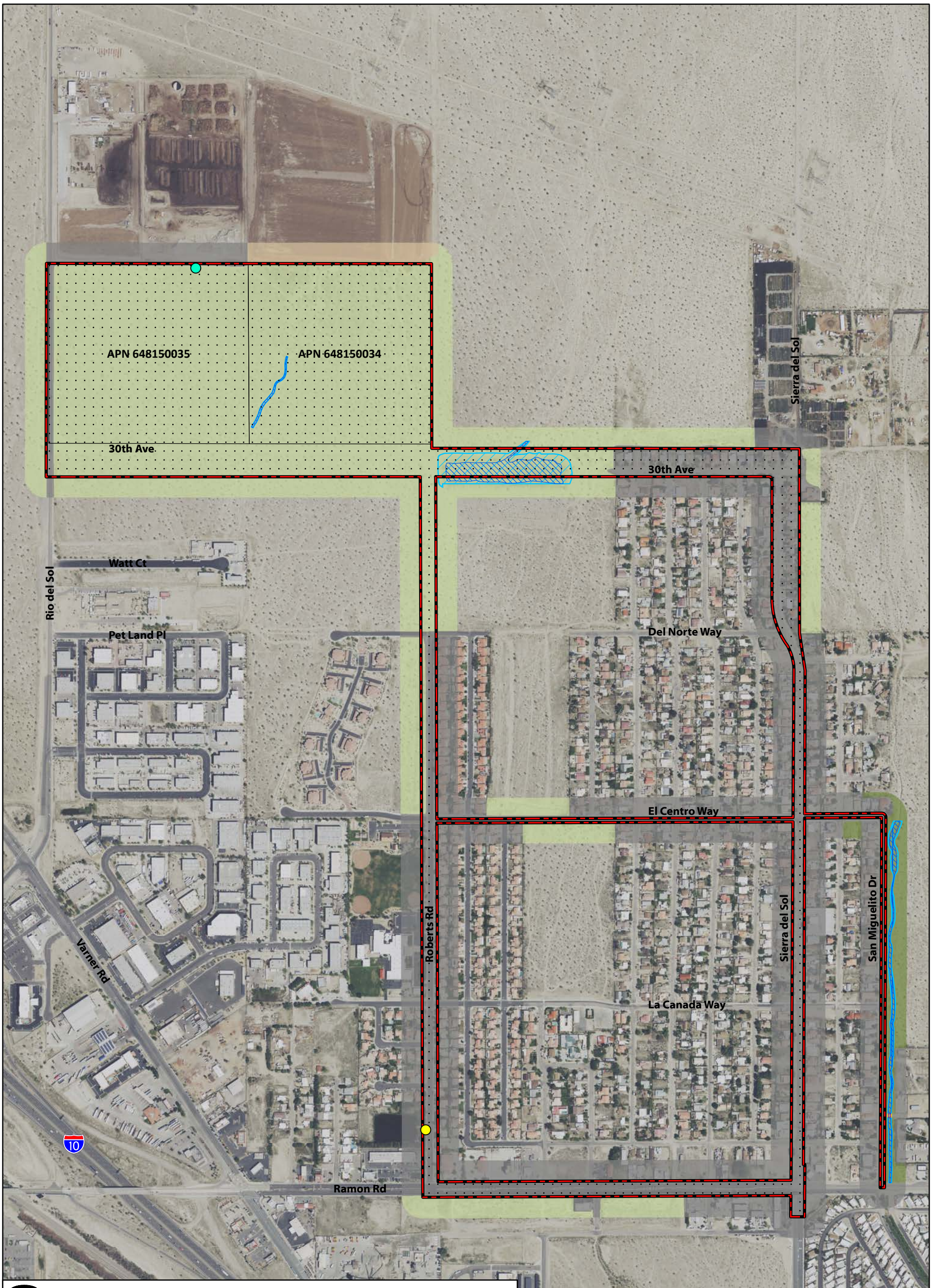
MAJESTIC THOUSAND PALMS

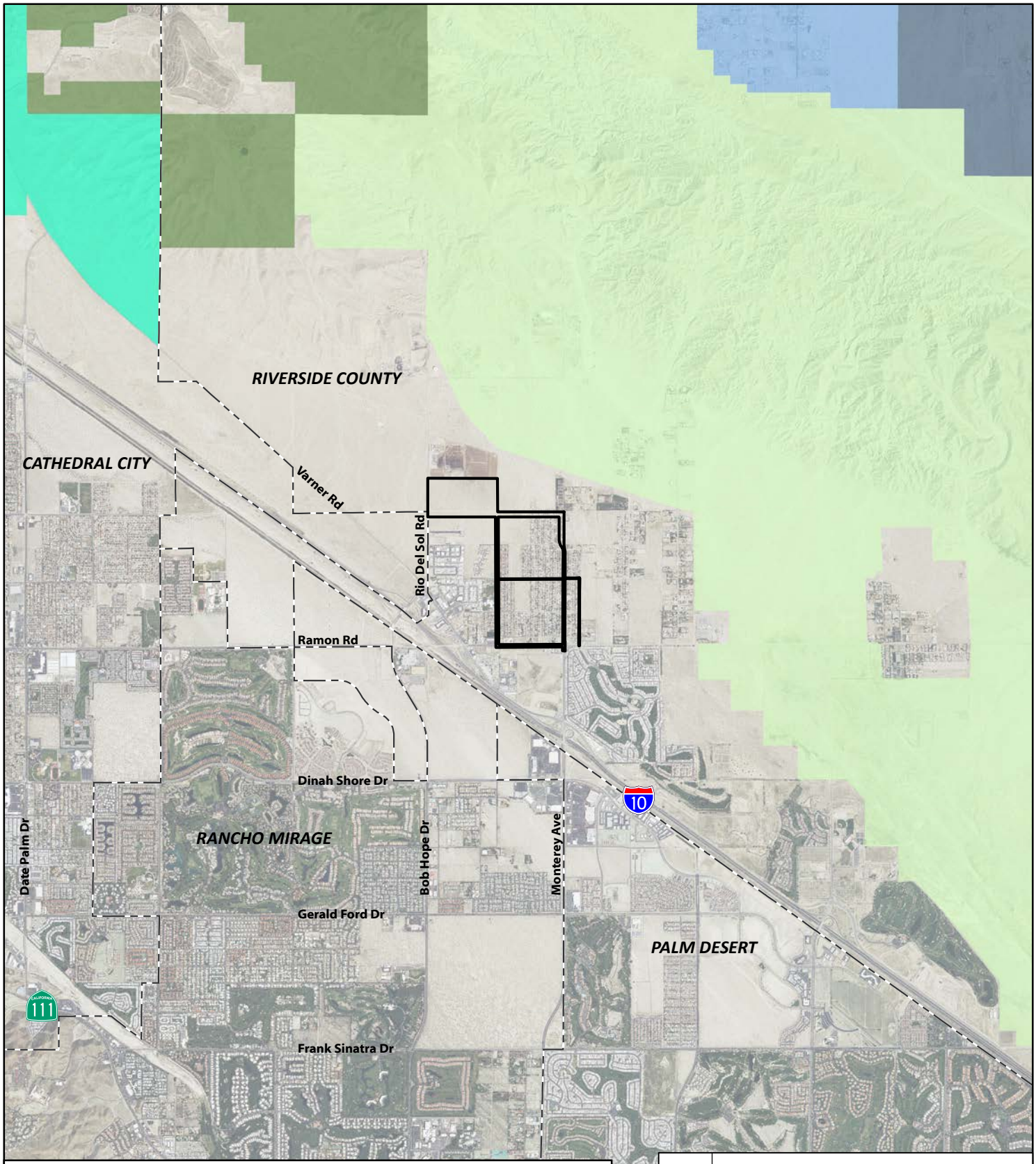
ROCKS BIOLOGICAL CONSULTING

0 0.5 1 MILES

Base Map: Esri Topographic Map
Source: CDFW


Project Boundary
1-mile Buffer
3-mile Buffer
Critical Habitat
Coachella Valley Fringe-toed Lizard
Coachella Valley Milk-vetch
USFWS Species Locations
Burrowing Owl
Coachella Valley Milk-vetch
FIGURE
5B
USFWS Plants and Wildlife
MAJESTIC THOUSAND PALMS
ROCKS
BIOLOGICAL CONSULTING
0
0.5
1
MILES
N
Base Map: Esri Topographic Map
Source: USFWS
COACHELLA VALLEY
INDIO
Thousand Palms
Rancho Mirage
Ramon Rd
Varner Rd
Date Palm Dr
Monterey Ave
Bob Hope Dr
Portola Ave
Gerald Ford Dr
Frank Sinatra Dr
Vista Dunes Rd
Country Club Dr
Dinah Shore Dr
Rancho Mirage High School
Pete Dye Golf Course - Mission Hills
Palm Valley School
Mission Hills Country Club
Tamarisk Country Club
The Annenberg Retreat at Sunnylands Golf Course
The Sat Rancho Mirage
Eisenhower Medical Center
Morningside Country Club
Marriott's Shadow Ridge
Santa Rosa Country Club
Desert Willow
Desert Falls Country Club
Avondale Country Club
Suncrest Country Club
Whitewater River
Highway 111


APN 648150035
APN 648150034
30th Ave
30th Ave
Sierra del Sol
Watt Ct
Rio del Sol
Pet Land Pl
Del Norte Way
El Centro Way
Roberts Rd
Sierra del Sol
San Miguelito Dr
La Canada Way
Varner Rd
10
Ramon Rd
Project Boundary
Project Impacts
Special-Status Species
Horned Lark (Eremophila alpestris)
Yellow Warbler (Setophaga petechia)
Vegetation
Disturbed Sonoran Creosote Bush Scrub
Disturbed Desert Saltbush Scrub
Disturbed Habitat
Developed
Corps/RWQCB Aquatic Resources
Non-Wetland Waters
Non-Wetland Waters - Concrete
CDFW Streambed
Vegetated Streambed
Unvegetated Streambed
FIGURE 6
Impacts
MAJESTIC THOUSAND PALMS
ROCKS BIOLOGICAL CONSULTING
0 325 650 FEET
N
Aerial Photo: USDA NAIP 2020



Project Boundary

CVMSHCP Conservation Areas

- Edom Hill Conservation Area
- Indio Hills/Joshua Tree National Park Linkage Conservation Area
- Thousand Palms Conservation Area
- West Deception Canyon Conservation Area
- Willow Hole Conservation Area

FIGURE 7

CVMSHCP Conservation Areas

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 0.5 1 MILES

N

Aerial Photo: USDA NAIP 2020
Source: CVMSHCP

APPENDIX A

SITE PHOTOGRAPHS

Appendix A

Site Photographs

Photo 1. Overview of the northern portion of the project site, facing north. Photo shows sparse disturbed Sonoran creosote bush scrub on site. March 23, 2022.

Photo 2. Overview of northwestern portion of the project site, facing south. Photo shows sparse disturbed Sonoran creosote such scrub and slight variations in topography and sediment. May 25, 2022.

Photo 3. Overview of the western border and buffer of the project site, facing south. Photo shows sparse disturbed Sonoran creosote such scrub adjacent to Rio Del Sol Road. March 23, 2022.

Photo 4. Overview of the disturbed desert saltbush scrub in the southern portion of the project site, facing southeast. September 21, 2022.

Photo 5. Downstream view of Non-wetland Water (NWW-) 1 within disturbed Sonoran creosote bush scrub in the northwestern portion of the project site, facing southwest. May 25, 2022.

Photo 6. Downstream view of NWW-2 as it transitions to a detention basin within disturbed Sonoran creosote bush scrub in the northern portion of the project site, facing southwest. May 25, 2022.

Photo 7. Land showing evidence of human activities/alterations (i.e., sprinkler heads and mulch) within the northern project boundary and buffer, facing north. March 23, 2022.

Photo 8. Upstream view of NWW-3 within disturbed desert saltbush scrub in the southeastern portion of the project buffer, facing north. September 21, 2022.

APPENDIX B

PLANT SPECIES OBSERVED WITHIN THE BURR STREET WAREHOUSE PROJECT SURVEY AREA

Appendix B

Plant Species Observed within Survey Area

Family	Scientific Name	Common Name
Amaranthaceae	*Salsola tragus**	Russian thistle
Amaranthaceae	*Tidestromia suffruticosa* var. *oblongifolia*	Salton Sea honeysweet
Apocynaceae	*Nerium oleander**	oleander
Asteraceae	*Ambrosia dumosa*	white bur-sage
Asteraceae	*Ambrosia salsola*	cheesebush
Asteraceae	*Dicoria canescens*	desert twinbugs
Asteraceae	*Encelia farinosa* var. *farinosa*	brittlebush
Asteraceae	*Geraea canescens*	desert sunflower
Asteraceae	*Malacothrix glabrata*	desert dandelion
Asteraceae	*Palafoxia arida* var. *arida*	desert needle
Boraginaceae	*Cryptantha* sp.	cryptantha
Brassicaceae	*Brassica tournefortii**	Sahara mustard
Cactaceae	*Cylindropuntia echinocarpa*	silver cholla
Chenopodiaceae	*Atriplex canescens*	four-wing saltbush
Chenopodiaceae	*Atriplex hymenelytre*	desert-holly
Chenopodiaceae	*Atriplex polycarpa*	many-fruit saltbush
Ehretiaceae	*Tiquilia plicata*	fan-leaved tiquilia
Euphorbiaceae	*Croton californicus*	California croton
Fabaceae	*Parkinsonia aculeata*	Mexican palo verde
Fabaceae	*Prosopis glandulosa*	mesquite
Fabaceae	*Psorothamnus emoryi*	white dalea
Fabaceae	*Psorothamnus schottii*	indigo bush
Fabaceae	*Psorothamnus spinosus*	smoke tree
Loasaceae	*Petalonyx thurberi*	Thurber's sandpaper plant
Nyctaginaceae	*Abronia villosa*	desert sand-verbena
Onagraceae	*Chylismia claviformis*	clavate fruited primrose
Poaceae	*Schismus barbatus**	Mediterranean grass
Polygonaceae	*Eriogonum inflatum*	desert trumpet
Solanaceae	*Datura wrightii*	western jimson weed
Tamaricaceae	*Tamarix* sp.*	salt cedar
Zygophyllaceae	*Larrea tridentata*	creosote bush
Zygophyllaceae	*Tribulus terrestris**	puncture vine
*: Non-native species		

APPENDIX C

WILDLIFE SPECIES OBSERVED WITHIN THE BURR STREET WAREHOUSE PROJECT SURVEY AREA

Appendix C

Wildlife Species Observed within Survey Area

Family	Common Name	Scientific Name
INSECTS		
Formicidae	harvester ants	*Pogonomyrmex* sp.
Lycaenidae	western pygmy blue	*Brephidium exilis*
AMPHIBIANS and REPTILES		
Iguanidae	desert iguana	*Dipsosaurus dorsalis*
Crotaphytidae	long-nosed leopard lizard	*Gambelia wislizenii*
BIRDS		
Accipitridae	red-tailed hawk	*Buteo jamaicensis*
Alaudidae	horned lark (WL)	*Eremophila alpestris*
Cathartidae	turkey vulture	*Cathartes aura*
Columbidae	rock pigeon*	*Columba livia*
Columbidae	mourning dove	*Zenaida macroura*
Corvidae	common raven	*Corvus corax*
Falconidae	American kestrel	*Falco sparverius*
Icteridae	Brewer's blackbird	*Euphagus cyanocephalus*
Passeridae	house sparrow*	*Passer domesticus*
Parulidae	yellow-rumped warbler	*Setophaga coronata*
Parulidae	yellow warbler (SSC, when nesting)	*Setophaga petechia*
Remizidae	verdin	*Auriparus flaviceps*
Trochilidae	Anna's hummingbird	*Calypte anna*
Tyrannidae	Say's phoebe	*Sayornis saya*
MAMMALS		
Canidae	coyote	*Canis latrans*
Sciuridae	round-tailed ground squirrel	*Xerospermophilus tereticaudus*

SSC: California Department of Fish and Wildlife (CDFW) Species of Special Concern
WL: California Department of Fish and Wildlife (CDFW) Watch List species
*: Non-native species

APPENDIX D

MAJESTIC THOUSAND PALMS AQUATIC RESOURCES DELINEATION REPORT (ARDR)

ROCKS
BIOLOGICAL CONSULTING



MAJESTIC THOUSAND PALMS
AQUATIC RESOURCES DELINEATION REPORT

Riverside County, California

October 11, 2022

Prepared for:
T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, CA 92602
(714) 505-6360 ext. 350

Prepared by:
Rocks Biological Consulting
4312 Rialto Street
San Diego, CA 92107
(619) 701-6798

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1 INTRODUCTION

On behalf of T&B Planning, Inc., Rocks Biological Consulting (RBC) conducted a formal aquatic resources delineation for the Majestic Thousand Palms review area, composed of 203.54 acres (Figure 1), to identify areas that may be considered jurisdictional under the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act; the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act; the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code. The information provided in this aquatic resources delineation report (ARDR) is necessary to define the presence or absence of aquatic resources within the review area. This ARDR can also be used by the agencies to inform the jurisidictional status of delineated aquatic resources and by the applicant and agencies to assess conformance with state and federal regulations and to estimate potential impacts and associated permitting requirements. Furthermore, the information contained in this report is in compliance with the Corps Los Angeles District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Minimum Standards; Corps 2017). Appendix A provides a checklist to ensure compliance with the Minimum Standards.

This ARDR does not include a request for the Corps to complete a Jurisdictional Determination (JD). T&B Planning, Inc. may request a separate Preliminary JD (PJD) or Approved JD (AJD).

2 SITE DESCRIPTION, LANDSCAPE SETTING

2.1 LOCATION

The review area is located north of Interstate (I-) 10, south of the Coachella Valley Preserve, within the community of Thousand Palms in unincorporated Riverside County, California (Figure 1). The review area is bordered by a recycling facility and undeveloped land to the north; Della S Lindley Elementary School, a recreational center, and residential development to the west; residential development and undeveloped land to the east; and sparse commercial development, residential development, and undeveloped land to the south. The latitude and longitude of the approximate center of the review area is 33.828272, -116.396863. The review area sits on Township 4 South, Range 5 East, Sections 12-13, and Range 6 East, Sections 7, 18, and 19 within the Cathedral City 7.5-minute quadrangle, as mapped by the U.S. Geological Survey (USGS; Figure 2).

2.2 TOPOGRAPHY

The review area elevation ranges from approximately 220 to 350 feet above mean sea level (amsl), with the area of higher elevation in the northern portion of the review area (Figure 2). Drainage patterns within the review area generally trend north to south following a gradual decrease in elevation.

2.3 WATERSHED

The review area is within the Whitewater River Hydrologic Unit Code (HUC) 8 (18100201), Upper Whitewater River HUC 10 (1810020106), and Town of Thousand Palms HUC 12 (181002010602) watersheds (Figure 3). The Whitewater River watershed encompasses approximately 1,500 square

miles (University of California, Davis [UCD] n.d.). The Whitewater River headwaters in the San Gorgonio Mountains and Wilderness Area, before traveling approximately 54 miles and terminating at the Salton Sea (USGS 2020; Riverside County Watershed Protection 2020).

In addition to the watersheds defined by the USGS and commonly used by the Corps, the RWQCB also defines watershed boundaries by Hydrologic Units (HUs). The review area is within the Colorado River Basin, the Whitewater HU, the Coachella Hydrologic Area (HA), and the Thousand Palms Hydrologic Subarea (HSA) (Colorado River Basin Regional Water Quality Control Board [CRBRWQCB] 2019).

3 METHODS

3.1 PRE-FIELD REVIEW

Prior to the on-site delineation, field maps were created using a Geographic Information System (GIS) and a color aerial photograph at a 1 inch = 200 feet scale. RBC staff reviewed USGS National Hydrography Dataset (NHD) and topography data (Figure 2), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data (Figure 4), and Natural Resources Conservation Service (NRCS) soils data (Figure 4) to further determine the potential locations of aquatic resources within the review area. RBC also utilized Google Earth Pro to assess current and historic presence or absence of flows and/or ponding in the review area (Google Earth Pro 2022).

3.2 ON-SITE DELINEATION AND MAPPING

RBC regulatory specialists conducted aquatic resources delineation field visits on May 25, 2022 and September 21, 2022. Field conditions during these field visits are provided below in Table 1.

Table 1. Field Conditions

Date	Survey Time Start – End	Temperature (ºF) Start – End	Wind Speed Range (miles per hour) Start – End	Cloud Cover (%) Start – End	Personnel
5/25/2022	0730 – 1130	80 – 90	0 to 2 – 6 to 8	0 – 0	Kelsey Woldt, Ryan Layden
9/21/2022	0900 – 1430	82 – 97	3 to 5 – 8 to 12	0 – 0	Kelsey Woldt, Alec Goodman

Figure 1 and Figures 5A – 5C depict the 203.54-acre review area.

Areas with depressions, drainage patterns, and/or wetland vegetation within the review area were evaluated, with focus on the presence of defined channels and/or wetland vegetation, soils, and/or hydrology. While in the field, potential aquatic resources were recorded using a hand-held Global Positioning System (GPS) unit with a level of accuracy ranging from 15 to 30 feet. RBC staff refined the data using aerial photographs and topographic maps with one-foot contours to ensure accuracy.

All figures generated for this ARDR follow the Corps' Updated Map and Drawing Standards for the South Pacific Division Regulatory Program (Corps 2016).

The below subsections provide the aquatic resources delineation methods used per agency;

Appendix B provides additional details regarding the agencies' applicable regulations and guidance associated with this ARDR.

3.2.1 CORPS

Ordinary High Water Mark Delineation

Aquatic resources with a defined ordinary high water mark (OHWM) would be considered potential non-wetland waters of the U.S. Corps regulations at 33 Code of Federal Regulations (CFR) 329.11 define an OHWM as "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (51 Federal Register [FR] 41251, November 13, 1986). RBC staff used guidance provided in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Field Guide; Lichvar & McColley 2008) and Regulatory Guidance Letter (RGL) 05-05 to estimate the extent of an OHWM in the field. For each feature exhibiting the potential presence of an OHWM, RBC completed a 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet following the guidance provided in the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Datasheet; Curtis & Lichvar 2010). Per the 2010 OHWM Datasheet, common indicators of an OHWM include a break in slope (i.e., abrupt cut in bank slope created by hydrogeomorphic processes across the landscape), changes in average sediment texture between floodplain units (i.e., low-flow, active floodplain, low terrace), and changes in vegetation species and/or cover between floodplain units.

Wetland Delineation

Field staff examined potential wetland waters of the U.S. using the routine determination methods set forth in Part IV, Section D, Subsection 2 of the Corps 1987 *Wetland Delineation Manual* (Wetland Manual; Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Arid West Supplement; Corps 2008). Areas that met the three parameters per the Arid West Supplement (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology, following methods set forth in the Wetland Manual and Arid West Supplement) were considered wetland waters of the U.S. RBC staff based wetland plant indicator status (i.e., Obligate [OBL], occurs 99+% in wetlands; Facultative Wetland [FACW], occurs 67-99% in wetlands; Facultative [FAC], occurs 34-66% in wetlands; Facultative Upland [FACU], occurs 1-33% in wetlands; Upland [UPL], occurs 99+% in uplands; and Not Listed [NL], considered UPL for wetland delineation purposes) on the *National Wetland Plant List* (NWPL; Corps 2020a) and hydric soils indicators on *Field Indicators of Hydric Soils in the United States, Version 8.2* (NRCS 2018a). Soil chromas were identified in the field according to *Munsell Soil-Color Charts with Genuine Munsell Color Chips* (Munsell Color 2015) and per the Wetland Manual and Arid West Supplement. Plants were identified according to *The Jepson Manual: Vascular Plants of California, 2nd edition* (Baldwin et al. 2012) and nomenclature follows Jepson eFlora (Jepson Flora Project 2022).

3.2.2 RWQCB

Ordinary High Water Mark Delineation

The State Water Resources Control Board (SWRCB) and RWQCBs do not have regulations or guidance on defining the extent of non-wetland waters of the State. As such, field staff identified the lateral limits of potential non-wetland waters of the State using the same methods for determining an OHWM per the Corps as described in Section 3.2.1 as they have generally been considered coincident.

Wetland Delineation

The State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (the Procedures; SWRCB 2021) defines wetland waters of the State. The Procedures were adopted on April 2, 2019, went into effect on May 28, 2020, and were revised on April 6, 2021. As detailed in the Procedures, the SWRCB and RWQCBs define a wetland as follows: "An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021).

The Procedures provide that RWQCBs shall rely on a wetland delineation from a final ARDR verified by the Corps to determine the extent of wetland waters of the State. If any potential wetland areas have not been delineated in a final ARDR verified by the Corps, the limits of such potential wetland waters of the State shall be identified using the same wetland delineation methods per the Corps as described in Section 3.2.1, except that a lack of vegetation (i.e., less than 5 percent areal coverage of plants during the peak of the growing season) does not preclude an area from meeting the definition of a wetland waters of the State (SWRCB 2021).

3.2.3 CDFW

River, Lake, Stream, and Associated Riparian and Wetland Habitat Delineation

CDFW jurisdiction relies on the presence of a river, lake, and/or stream and associated riparian or wetland habitat (California Fish and Game Code § 1600 et seq). Lakes include "natural lakes or man-made reservoirs" (14 California Code of Regulations [CCR] § 1.56). CDFW regulations define a stream as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (14 CCR § 1.72). The 1987 *Rutherford v. State of California* (188 Cal. App. 3d 1268) decision further provided that a streambed is the "channel of a water course; the depression between the banks worn by the regular and usual flow of the water." A streambed includes the "[a]rea extending between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including sand bars which may exist between the foot of said banks…" (188 Cal. App. 3d 1268). The bank is defined as "the slope or elevation of land that bounds the bed of the stream in a permanent or long-standing way, and that confines the stream water up to its highest level" (*The People v. Phillip Wright Osborn*, 116 Cal. App. 4th 764 [2004]).

Riparian habitat refers to vegetation and habitat associated with a stream. CDFW-jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream. Isolated riparian habitat (i.e., where riparian vegetation does not appear associated with an ephemeral wash) is not considered CDFW-jurisdictional.

CDFW follows the USFWS wetland definition and classification system, which defines a wetland as transitional land between terrestrial and aquatic systems having one or more of the following attributes: "(1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardin et al. 1979). A wetland is presumed when all three attributes are present; if less than three attributes are present the presumption of a wetland must be supported by "the demonstrable use of wetland areas by wetland associated fish or wildlife resources, related biological activity, and wetland habitat values" (California Fish and Game Commission [CFGC] 1994).

Potential CDFW-jurisdictional wetland boundaries were determined based on the presence of wetland areas supported by a river, lake, or stream. Wetland delineation methods to determine the presence of one or more wetland attributes included the same methods per the Corps as described in Section 3.2.1.

Based on the above, potential CDFW-jurisdictional aquatic resources delineated included rivers, lakes, and/or streams and their associated riparian and wetland habitats. Field staff delineated the lateral extent of potential CDFW jurisdiction to be "bank to bank" for a streambed or to the "dripline" of riparian habitat and/or wetland boundary, if present.

4 SITE ALTERATIONS, CURRENT AND PAST LAND USE

RBC staff reviewed Google Earth Pro (Google Earth Pro 2022) and the University of California – Santa Barbara (UCSB; UCSB n.d.) database to assess historic and ongoing land uses within the review area (Appendix C). Segments of the southern portion of the review area have been surrounded by commercial and residential development since at least as far back as September 1953 (i.e., the earliest aerial image available; UCSB n.d.; Appendix C). The areas surrounding the northern portion of the review area remained largely undeveloped until a recycling plant was constructed north of the review area between June 1996 and May 2002 (Google Earth Pro 2022; Appendix C). Non-Wetland Water (NWW-) 1 and NWW-2 (discussed below in Section 6) occurred within portions of their present-day extents in the review area at least as far back as September 1953 (UCSB n.d.; Appendix C). NWW-3 becomes visible in its approximate present-day location between March 1978 and March 1991 (UCSB n.d.; Appendix C). Between March 1991 and June 1996, a basin was established in the northcentral region of the review area within the present-day, southern extent of NWW-2 (UCSB n.d.; Appendix C). During this same time period, Basin (B-) 1 (discussed below in Section 6.4) was established in the southwestern portion of the review area, adjacent to the expanding residential development west of Roberts Road (UCSB n.d.; Appendix C). Between March 2015 and August 2018, property north of the review area was graded, affecting the hydrology north of and within the review area; manipulation of this area continued between August 2018 and June 2021 (Google Earth Pro 2022; Appendix C). Normal circumstances, as defined in the Corps 1987 Wetland Manual (Environmental Laboratory 1987), were assumed to be present within the review area; no evidence of recent natural events or human

activities that would affect the results of the delineation were observed within the review area during the 2022 field delineations.

The following sections provide additional details regarding site alterations and land use specific to on-site soils, hydrology, and vegetation based on available data and the site visit.

4.1 SOILS

Based on the NRCS soils data map (Figure 4), six soil map units, outlined below in Table 2, occur within the review area:

Table 2. Soil Mapped within Review Area

Soil Map Unit	Soil Series/Unit	Geomorphic Surface	Taxonomic Class	NRCS Hydric Status
Carsitas cobbly sand, 2 to 9 percent slopes	Carsitas	Alluvial fans	Mixed, hyperthermic Typic Torripsamments	Yes, Criteria 4[1]
Carsitas fine sand, 0 to 5 percent slopes				No
Carsitas gravelly sand, 0 to 9 percent slopes				Yes, Criteria 4[1]
Coachella fine sand, 0 to 2 percent slopes	Coachella	Alluvial fans	Sandy, mixed, hyperthermic Typic Torrifluvents	No
Myoma fine sand, 0 to 5 percent slopes	Myoma	Alluvial fans	Mixed, hyperthermic Typic Torripsamments	Yes, Criteria 4[1]
Myoma fine sand, 5 to 15 percent slopes				Yes, Criteria 4[1]

Source: NRCS Official Soil Series Description and Series Classification database (NRCS n.d.a); NRCS Soil Data Access (SDA) Hydric Soils List (NRCS n.d.b)

[1]Criteria 4: This map unit contains "components that are frequently flooded for long duration or very long duration during the growing season that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric soils in the United States, or b) Show evidence that the soil meets the definition of a hydric soil" (77 FR 12234).

The National Technical Committee for Hydric Soils defines hydric soils; *Changes in Hydric Soils Database Selection Criteria* (77 FR 12234) outlines the current four hydric soil criteria. As shown above in Table 2, the NRCS Soil Data Access (SDA) Hydric Soils List specifies four of the soil map units within the review area as hydric (NRCS n.d.b).

The soil series outlined above in Table 2 are further described below per the USDA's *NRCS Official Soil Series Description and Series Classification* database (NRCS n.d.a):

Carsitas series – The Carsitas series consists of very deep, somewhat excessively drained soils formed in alluvium derived from granitic rock and/or gneissic rock. Carsitas soils have negligible to low runoff and high saturated hydraulic connectivity. These soils occur on alluvial fans, fan aprons, valley fills, and drainageways on slopes ranging from 0 to 30 percent at elevations of 220 feet below mean sea level (bmsl) to 800 feet amsl. Carsitas soil is used for producing irrigated crops, such as citrus and grapes, as well as for watershed, wildlife habitat, and recreation. Uncultivated areas consist of creosote bush (*Larrea tridentata*), burrobush (*Ambrosia dumosa*), barrel cactus (*Ferocactus* sp.), mesquite (*Prosopis* sp.), and palo verde (*Parkinsonia* sp.).

Coachella series – The Coachella series consists of well-drained soils formed in alluvium derived from igneous rock. Coachella soils have slow runoff and moderately rapid permeability. These soils

occur in lacustrine basins on nearly level to gently sloping slopes at elevations of 230 feet bmsl to 800 feet amsl. Coachella soil is used for producing irrigated crops, such as citrus, grapes, and vegetables. Uncultivated areas consist of sparse shrubs and weeds.

Myoma series – The Myoma series consists of somewhat excessively drained soils formed in sand blown from recent alluvium. Myoma soils have very slow runoff and rapid permeability. These soils occur on nearly level to rolling surfaces at elevations of 200 feet bmsl to 1,800 feet amsl. Myoma soil is used for producing irrigated crops, such as citrus, grapes, alfalfa, dates, and trucks crops. Uncultivated areas consist of grasses and forbs, as well as sparse cover of creosote bush, bush sunflower (*Encelia californica*), and mesquite.

As stated in the Arid West Supplement, RBC used the hydric soils list as a tool and made final hydric soils determinations based on field-collected data at representative wetland delineation sample points deemed appropriate on site as recorded on the attached Arid West Wetland Determination Data Forms (Appendix D) discussed further in Section 6.1.

4.2 HYDROLOGY

As shown on Figure 2 and Figure 4, respectively, USGS NHD maps two "Stream/River" (ephemeral) features and USFWS NWI maps two "Riverine" (R4SBJ) features in the northern portion of the review area (USGS 2020, USFWS 2021).

The primary known hydrologic source for the observed on-site features, discussed further below, are direct precipitation and runoff from from the surrounding sparsely developed areas. Based on field observations, the westernmost feature delineated within the northern portion of the review area (NWW-1) travels north to south/southwest following a slight change in topography before terminating on site; the central feature delineated within the northern portion of the review area (NWW-2) travels north to south/southwest before terminating in a detention basin; the easternmost feature delineated within the eastern portion of the review area (NWW-3) travels north to south following a slight change in topography before terminating on site at Ramon Road (Figures 5A – 5C).

4.3 VEGETATION

Table 3 provides vegetation community acreages within the review area based on vegetation mapping RBC biologists conducted on March 23, 2022 and September 21, 2022 (Figure 6). The review area primarily consists of disturbed Sonoran creosote bush scrub. The vegetation community classifications are roughly in accordance with *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) and consistent with the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) vegetation mapping classification (Coachella Valley Association of Governments [CVAG] 2007).

Table 3. Vegetation Communities within Review Area

Vegetation Community/Land Cover Type	Acre(s)[1]
Developed	75.61
Disturbed Desert Saltbush Scrub	3.64
Disturbed Habitat	1.25
Disturbed Sonoran Creosote Bush Scrub	123.03
Total	203.54

[1]Acreages summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

Developed Land

Developed land supports little to no native vegetation and is composed of human-made structures and paved surfaces (buildings, pavement, etc.). Developed areas within the review area occur along the existing surface streets mostly within the center and southern portions of the review area. The developed areas consist of roads and other structures such as residential buildings, a community center, and an elementary school.

Disturbed Desert Saltbush Scrub

Disturbed desert saltbush scrub is similar to desert saltbush scrub; however, it has been substantially altered by human disturbance. Disturbed desert saltbush scrub occurs where fine-textured, poorly drained soils with high salinity and/or alkalinity occur. This community is typically dominated by one or more species of saltbush (*Atriplex* sp.), including allscale (*A. polycarpa*) and four-winged saltbush (*A. canescens* var. *linearis*), and commonly associated with screwbean mesquite (*Prosopis glandulosa* var. *torreyana*). Disturbed desert saltbush scrub occurs along the far southeastern portion of the review area along San Miguelito Drive and is dominated by four-winged saltbush and allscale. Due to its proximity to developed land, human disturbances, including vehicle paths and tracks, trash dumping, and erosion are present throughout this community.

Disturbed Habitat

Disturbed habitat is typically classified as land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Riversidean sage scrub). Disturbed habitat is typically found in vacant lots, along roadsides, within construction staging areas, and in abandoned fields. The habitat is typically dominated by non-native annual species and perennial broadleaf species. Disturbed habitat within the review area occurs along the northern boundary of the review area and is characterized by a complete lack of native species; the area has been denuded of most vegetation and covered in mulch, possibly from past agriculture activities.

Disturbed Sonoran Creosote Bush Scrub

Disturbed Sonoran creosote bush scrub is similar to Sonoran creosote bush scrub; however, it has been substantially altered by human disturbance. Sonoran creosote bush scrub typically occurs on slopes, alluvial fans, and valleys and consists of widely spaced stands of creosote bush, four-wing saltbush, indigo bush (*Psorothamnus schottii*), white dalea (*P. emoryi*), and other shrub or succulent species. Disturbed Sonoran creosote bush scrub occurs throughout the undeveloped portions of the review area and is dominated by creosote bush, white dalea, and burrobrush (*Ambrosia dumosa*). Little to no annuals were observed during the general biological survey on March 23, 2022. Human disturbances, including off-road vehicle tracks and trash dumping, are present throughout this community.

5 PRECIPITATION DATA AND ANALYSIS

RBC utilized the NRCS Agricultural Applied Climate Information System (AgACIS) database for the Palm Springs ASOS station (approximately 6 miles west of the review area) to access pre-site visit precipitation data for the May 25, 2022 and September 21, 2022 field survey dates (NRCS 2022), as shown in Table 4.

RBC also utilized the Corps' Antecedent Precipitation Tool (APT) to assess whether or not the delineation date occurred in a drier, average, or wetter than normal period for the review area (Corps 2020b). The Corps created the APT to assist with determining the normal periodic range of precipitation and other climate variables for the waterbody or waterbodies within a review area. Additionally, the APT can also generally inform the regulatory agencies whether or not normal hydrologic/climatic conditions were on site at the time of the field surveys and assist with completion of the Wetland Determination Data Forms (Appendix D).

5.1 PRECIPITATION SUMMARY

Table 4 describes the estimated monthly total precipitation for the review area from September 2021 to August 2022 to provide the pertinent pre-site visit precipitation data from the NRCS database for the Palm Springs ASOS station (NRCS 2022).

Table 4. Precipitation Data for September 2021 – August 2022

	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Monthly Total Precip. (inch[es])	0.04	0.09	0.00	1.29	T[1]	0.10	T[1]	0.02	0.00	0.03	T[1]	T[1]

[1] Per AgACIS database: "Values of 'T' indicates a trace."

5.2 ANTECEDENT PRECIPITATION TOOL DATA

The APT provides three climatological parameters: Palmer Drought Severity Index (PDSI), season, and antecedent precipitation condition. The PDSI is a standardized index calculated on a monthly basis with PDSI value outputs ranging from -10 (extremely dry) to +10 (extremely wet) (National Oceanic and Atmospheric Administration [NOAA] 2022) to assess drought conditions (i.e., PDSI Class). The APT determines wet versus dry season based on related procedures provided in the

applicable regional supplement for the review area (i.e., Arid West Supplement). The antecedent precipitation condition is classified as drier than normal with an antecedent runoff condition (ARC) score less than 10; normal with an ARC score between 10 to 14; or wetter than normal with an ARC score greater than 14 (Sprecher & Warne 2000).

Table 5 summarizes the key data extrapolated from the APT output to compare the current year 30-day rolling total to the averaged 30-year normal for the weather stations with comprehensive historical data within 30 miles of the review area: estimated drought conditions, wet or dry season determination, ARC score, and antecedent precipitation condition. The APT output provided in Appendix E noted a PDSI class of "extreme drought" during the May 25, 2022 field survey and "severe drought" during the September 21, 2022 field survey. The precipitation and climatic conditions were classified as "drier than normal" for the review area during the May 25, 2022 field survey and "wetter than normal" for the review area during the September 21, 2022 field survey based on the 30-day rolling totals for the three months preceding the field survey date. Field staff considered the "extreme drought" and "severe drought" conditions during the field delineations, evaluated how the drought conditions could affect the data collected on the Arid West Wetland Determination Data Forms and Ephemeral and Intermittent Streams OHWM Datasheets (Appendix D), and used recent and historic aerials to ensure appropriate representation of the extent of the on-site aquatic features for this ARDR considering the 2022 drought conditions.

Table 5. Antecedent Precipitation Tool Data for Review Area

Field Survey Date	PDSI Value	PDSI Class	Season	ARC Score	Antecedent Precipitation Condition
05/25/2022	-4.85	Extreme drought	Dry season	8	Drier than normal
09/21/2022	-3.80	Severe drought	Dry season	15	Wetter than normal

6 DESCRIPTION OF OBSERVED POTENTIAL AQUATIC RESOURCES

The following descriptions of observed potential aquatic resources within the review area document the presence or absence of aquatic resource indicators per the methods discussed in Section 3. The subsections below are intended to be reviewed independently under each agency's purview unless otherwise directed in the text (i.e., the aquatic resource description is the same between two or more agencies) given the various regulatory definitions and standards per each agency.

Appendix F provides site photographs of the features within the review area; all figures in the Figure 5 series display representative photo points.

6.1 CORPS/RWQCB WETLAND WATERS OF THE U.S./STATE

RBC collected data at four representative Wetland Data Form Points (WDP) within the review area, including sample points within NWW-1, NWW-2, and NWW-3 (see Section 6.2 below) to determine the presence or absence of jurisdictional wetland waters of the U.S./State (Figures 5A and 5B; Appendix D). The delineated aquatic resources on site did not meet the appropriate wetland parameters to qualify as wetland waters of the U.S./State based on the data collected during the

field delineation, as discussed further in Section 6.2.

6.2 CORPS/RWQCB NON-WETLAND WATERS OF THE U.S./STATE

Non-Wetland Water 1

NWW-1 is a very sparsely vegetated drainage composed of Sonoran creosote bush scrub – disturbed (Figures 5A and 5B; Tables 6 and 7; Appendix F, Photos 1 – 3). NWW-1 commences within the northern portion of the review area, as shown on Figures 5A and 5B, and generally flows southwest before terminating on site.

NWW-1 did not meet all three wetland parameters. See Tables 6 and 7 for the estimated OHWM and representative OHWM and wetland delineation data for this feature.

Non-Wetland Water 2

NWW-2 is a vegetated drainage composed of Sonoran creosote bush scrub – disturbed (Figures 5A and 5B; Tables 6 and 7; Appendix F, Photos 4 – 8). NWW-2 occurs within the northern portion of the review area, east of NWW-1, as shown on Figures 5A and 5B, and generally flows southwest before transitioning into a sparsely vegetated detention basin (constructed between March 1991 and June 1996) at its downstream extent (Google Earth Pro 2022; Appendix C). NWW-2 did not meet all three wetland parameters. See Tables 6 and 7 for the estimated OHWM and representative OHWM and wetland delineation data for this feature.

Non-Wetland Water 3

NWW-3 is a sparsely vegetated drainage composed of disturbed desert saltbush scrub (Figures 5A and 5B; Tables 6 and 7; Appendix F, Photos 11 – 15). NWW-3 occurs within the southeastern portion of the review area, east of San Miguelito Drive as shown on Figures 5A and 5Btravels on site and flows south before briefly flowing over a concrete driveway, then continuing south and dissipating at Ramon Road. NWW-3 did not meet all three wetland parameters. See Tables 6 and 7 for the estimated OHWM and representative OHWM and wetland delineation data for this feature.

6.3 CDFW STREAMBED AND ASSOCIATED RIPARIAN AND WETLAND HABITATS

Figure 5C displays the estimated extent of streambed within the review area, delineated based on the top of the channel banks; Table 8 provides additional details.

Non-Wetland Water 1: Vegetated Streambed

NWW-1 is a sparsely vegetated streambed with a minimally defined bed and bank that occurs within an area of Sonoran creosote bush scrub – disturbed in the northern portion of the review area (Figure 5C; Table 8; Appendix F, Photos 1– 3). NWW-1 commences within the northern portion of the review area, as shown on Figure 5C, and generally flows southwest before terminating on site. See Table 8 for the estimated extent of CDFW jurisdiction for this feature.

Non-Wetland Water 2: Vegetated Streambed

NWW-2 is a sparsely vegetated streambed that occurs within an area of Sonoran creosote bush scrub – disturbed in the northern portion of the review area, just northeast of NWW-1 (Figure 5C;

Table 8; Appendix F, Photos 4 – 8). NWW-2 travels on site and flows southwest before transitioning into a sparsely vegetated detention basin (constructed between March 1991 and June 1996) at its downstream extent (Google Earth Pro 2022; Appendix C). See Table 8 for the estimated extent of CDFW jurisdiction for this feature.

Non-Wetland Water 3: Unvegated Streambed, Vegetated Streambed

NWW-3 is a sparsely vegetated streambed that occurs within an area of disturbed desert saltbush scrub in the eastern portion of the review area, just east of San Miguelito Drive (Figure 5C; Table 8; Appendix F, Photos 11 – 15). NWW-3 travels on site and flows south before briefly flowing over a concrete driveway, then continuing south and dissipating at Ramon Road. See Table 8 for the estimated extent of CDFW jurisdiction for this feature.

6.4 OTHER FEATURES

Field staff further investigated two areas with potential aquatic resource indicators, including a basin and a swale as described below. Additionally, WDP 4 was taken within an area mapped as hydric soils per the NRCS (Figures 5A – 5C; Appendix F, Photo 18). WDP 4 did not meet any of the three wetland parameters (Appendix D, WDP 4).

Furthermore, the features discussed in this section are not discussed further in this ARDR as they are not anticipated to be jurisdictional under the Corps, RWQCB, or CDFW regulations, policy, and/or guidance based on the information provided in this section.

Basin 1

One detention basin (B-1; Figures 5A – 5C) was observed during the field delineation west of Roberts Road in the southwestern portion of the review area. B-1 consisted of a fenced, artificially excavated detention basin, which is owned and maintained by Riverside County (Appendix C; Appendix F, Photo 16). As discussed previously in Section 4, B-1 was constructed between March 1991 and June 1996; no natural features occurred in this area prior to March 1991 (Appendix C; Google Earth Pro 2022; UCSB n.d.). The culvert located within B-1, as shown on Figures 5A – 5C, appeared to release flows into the detention basin; the culvert did not appear to convey flows away from B-1 (i.e., no downstream connectivity). Note that RBC was not allowed to access B-1; as such, this area was assessed from the perimeter of the basin along Roberts Road. RBC observed the presence of cattail (*Typha* sp; OBL), tamarisk (*Tamarix* sp.; FAC), Goodding's black willow (*Salix gooddingii*; FACW), mesquite (FAC/FACU), and Mexican palo verde (*Parkinsonia aculeata;* FAC) within B-1; however, even if B-1 met the appropriate wetland parameters to qualify as a wetland water, B-1 is not expected to qualify as an aquatic resource jurisdictional per the Corps, RWQCB, or CDFW.

Specifically, B-1 is an artifically constructed basin that does not convey flows to downstream aquatic resources via observed flow patterns, culverts, or other flow paths and thus does not provide/has no impact on downstream beneficial uses and/or aquatic resource functions. Additionally, even if B-1 meets all three wetland parameters, B-1 was artifically constructed in uplands (Appendix C), is subject to ongoing operation and maintenance, and is used for the purpose of detaining stormwater runoff. As such, B-1 would not qualify as an aquatic resource jurisdictional per the Corps or RWQCB. B-1 would also not qualify as streambed or associated wetland jurisdictional per the CDFW, as B-1 lacked association with a natural feature/streambed.

Swale 1

One swale (S-1; Figures 5A – 5C) was observed during the field delineation that did not display an observable OHWM, bed and bank, or other evidence of conveying regular flows on site. This disturbed swale feature also did not appear to convey flows to downstream aquatic resources via observed flow patterns, culverts, or other flow paths.

S-1 is a slightly concave drainage area located in the northwestern portion of the review area (Figures 5A – 5C; Appendix F, Photo 10). S-1 did not display an observable OHWM or bed and bank and instead appeared to convey/collect surface flows. ODP 3, taken in an area of disturbed Sonoran creosote bush scrub, did not show evidence of a break in slope or a defined bed and bank between the swale and adjacent slopes/uplands (Appendix D, ODP 3). Additionally, ODP 3 did not exhibit a change in average sediment texture, change in vegetation species or cover, or any other OHWM indicators between the swale and adjacent slopes/upland area. Thus, S-1 was determined to not have an OHWM or defined bed and bank.

Field staff did not observe additional areas with potential aquatic resource indicators, including other areas showing evidence of drainage, ponding, or flow patterns. Data collected for the features discussed in Sections 6.1, 6.2, and 6.3 defined the extent of aquatic resource and upland areas within the review area.

7 DEVIATION FROM NWI AND NHD

The delineated extent of NWW-2 generally occurs within the location of the easternmost features mapped by the USGS NHD as “Stream/River” and “Reservoir” (Figure 2) and within the location of the easternmost feature mapped by the USFWS NWI as “Riverine” (Figure 4). The USGS NHD and USFWS NWI do not map the delineated extent of NWW-1 or NWW-3. No aquatic resources occur within the westernmost areas mapped by the USGS NHD as “Stream/River” (Figure 2) and by the USFWS NWI as “Riverine” (Figure 4) (Appendix C; Appendix F, Photo 9).

8 RESULTS AND CONCLUSIONS

The results provided in this section include the extent of delineated aquatic resources within the review area based on desktop analysis and observed field indicators of potential waters of the U.S., waters of the State, and CDFW streambed and associated wetland and/or riparian habitat per the methodologies discussed in Section 3.

This section, however, does not analyze the Corps’ jurisdictional status of the delineated features per the current regulations, guidance, and standard operating procedures.

8.1 CORPS

NWW-1, NWW-2, and NWW-3 displayed various indicators of an OHWM; however, NWW-1, NWW-2, and NWW-3 did not meet the three federal wetland parameters. As such, NWW-1, NWW-2, and NWW-3 are potential non-wetland waters of the U.S. totaling approximately 3.55 acres (2,647 linear feet), as further detailed in Table 6 and as shown on Figure 5A.

Table 6. Aquatic Resource Summary: Corps

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)	Linear Feet
NWW-1	R6	8 – 12	CAST, CVC, BBS; see ODP 1	None; See WDP 1[4]	Yes/No	Disturbed Sonoran Creosote Bush Scrub; See WDP 2[4]	33.831993, -116.400647	0.13	586
NWW-2	R6	10 – 830	CAST, CVC, CVS, BBS; See ODP 2 and 5	WH; See WDP 2	Yes/No	Disturbed Sonoran Creosote Bush Scrub; See WDP 2	33.830496, -116.395071	2.84	462
NWW-3	R6	5 – 27	CAST, CVC, CVS, BBS; See ODP 4	WH; See WDP 3	Yes/No	Disturbed Desert Saltbush Scrub; See WDP 3	33.819516, -116.386009	0.58	1,599
							Total[5]	3.55	2,647

[1] OHWM Indicators: CAST = Change in average sediment texture; CVC = Change in vegetation cover; CVS = Change in vegetation species; BBS = Break in bank slope
[2] Wetland Indicators: WH = Wetland hydrology
[3] See Figure 6 for all vegetation communities present within each aquatic resource.
[4] Based on a representative WDP taken within an aquatic resource with similar conditions.
[5] Acreages and linear feet totals were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.

8.2 RWQCB

NWW-1, NWW-2, and NWW-3 displayed various indicators of an OHWM; however, NWW-1, NWW-2, and NWW-3 did not meet the three federal/State wetland parameters. As such, NWW-1, NWW-2, and NWW-3 are non-wetland waters of the State totaling approximately 3.55 acres (2,647 linear feet), as further detailed in Table 7 and as shown on Figure 5B.

Table 7. Aquatic Resource Summary: RWQCB

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)	Linear Feet
NWW-1	R6	8 – 12	CAST, CVC, BBS; see ODP 1	None; See WDP 1[4]	Yes/No	Disturbed Sonoran Creosote Bush Scrub; See WDP 2[4]	33.831993, -116.400647	0.13	586
NWW-2	R6	10 – 830	CAST, CVC, CVS, BBS; See ODP 2 and 5	WH; See WDP 2	Yes/No	Disturbed Sonoran Creosote Bush Scrub; See WDP 2	33.830496, -116.395071	2.84	462

Aquatic Resource Name	Cowardin Code	Active Channel Width Range (Feet)	Observed OHWM Indicators[1]	Observed Wetland Parameters[2]	Presence of OHWM/ Wetland	Dominant Vegetation[3]	Location (lat, long)	Acre(s)	Linear Feet
NWW-3	R6	5 – 27	CAST, CVC, CVS, BBS; See ODP 4	WH; See WDP 3	Yes/No	Disturbed Desert Saltbush Scrub; See WDP 3	33.819516, -116.386009	0.58	1,599
							Total[5]	3.55	2,647

[1] OHWM Indicators: CAST = Change in average sediment texture; CVC = Change in vegetation cover; CVS = Change in vegetation species; BBS = Break in bank slope
[2] Wetland Indicators: WH = Wetland hydrology
[3] See Figure 6 for all vegetation communities present within each aquatic resource.
[4] Based on a representative WDP taken within an aquatic resource with similar conditions.
[5] Acreages and linear feet totals were summed using raw numbers provided during GIS analysis (available upon request) and thus, the sum of the total rounded numbers may not directly add up in this table.

8.3 CDFW

NWW-1, NWW-2, and NWW-3 qualify as CDFW streambed (Table 7). Approximately 5.81 acres (2,626 linear feet) of vegetated streambed and 0.01 acre (22 linear feet) of unvegetated streambed occur within the review area, as further detailed in Table 8 and as shown on Figure 5C.

Table 8. Aquatic Resource Summary: CDFW

Aquatic Resource Name	Aquatic Resource Type	Vegetation Community	Width Range[1] (Feet)	Location (lat, long)	Acre(s)	Linear Feet
NWW-1	Vegetated Streambed	Disturbed Sonoran Creosote Bush Scrub	10 – 14	33.831986, -116.400651	0.16	586
NWW-2	Vegetated Streambed	Disturbed Sonoran Creosote Bush Scrub	10 – 960	33.830552, -116.395140	4.76	462
NWW-3	Unvegetated Streambed	Developed – Concrete	10 – 45	33.819924, -116.386011	0.01	22
	Vegetated Streambed	Disturbed Desert Saltbush Scrub			0.88	1,578
				Total[2]	5.82	2,647

[1] Corresponds with the approximate stream bank widths observed during delineation.
[2] Acreages and linear feet totals were summed using raw numbers provided during GIS analysis (available upon request) and thus the sum of the total rounded numbers may not directly add up in this table.

8.4 DISCLAIMER STATEMENT

The aquatic resources acreages and linear feet estimated in this section represent the existing conditions during the time of the field surveys. Please note that the applicable agencies will make final jurisdictional determinations. RBC recommends early coordination with the resource agencies to determine the final jurisdictional boundaries, applicable permitting processes, compensatory mitigation requirements, and other potential permitting issues specific to the proposed work within the review area. Agency representatives may request to access the site to field-verify the results of this ARDR with the applicant, or a designated representative.

The information provided in this report should remain valid for up to five years from the date of the field effort for the jurisdictional delineation unless site conditions change substantially, or a regulatory agency requires an updated report.

9 CONTACT INFORMATION

Applicant:

Phillip Brown, Executive Vice President

Majestic Realty Co.

13191 Crossroads Parkway North, 6th Floor

City of Industry, CA 91746

PBrown@majesticrealty.com

562-948-4350

Agent:

Sarah Krejca

Rocks Biological Consulting

4312 Rialto Street

San Diego, CA 92107

sarah@rocksbio.com

619-813-8790

Agency access to the review area can be coordinated with the applicant and/or agent upon request.

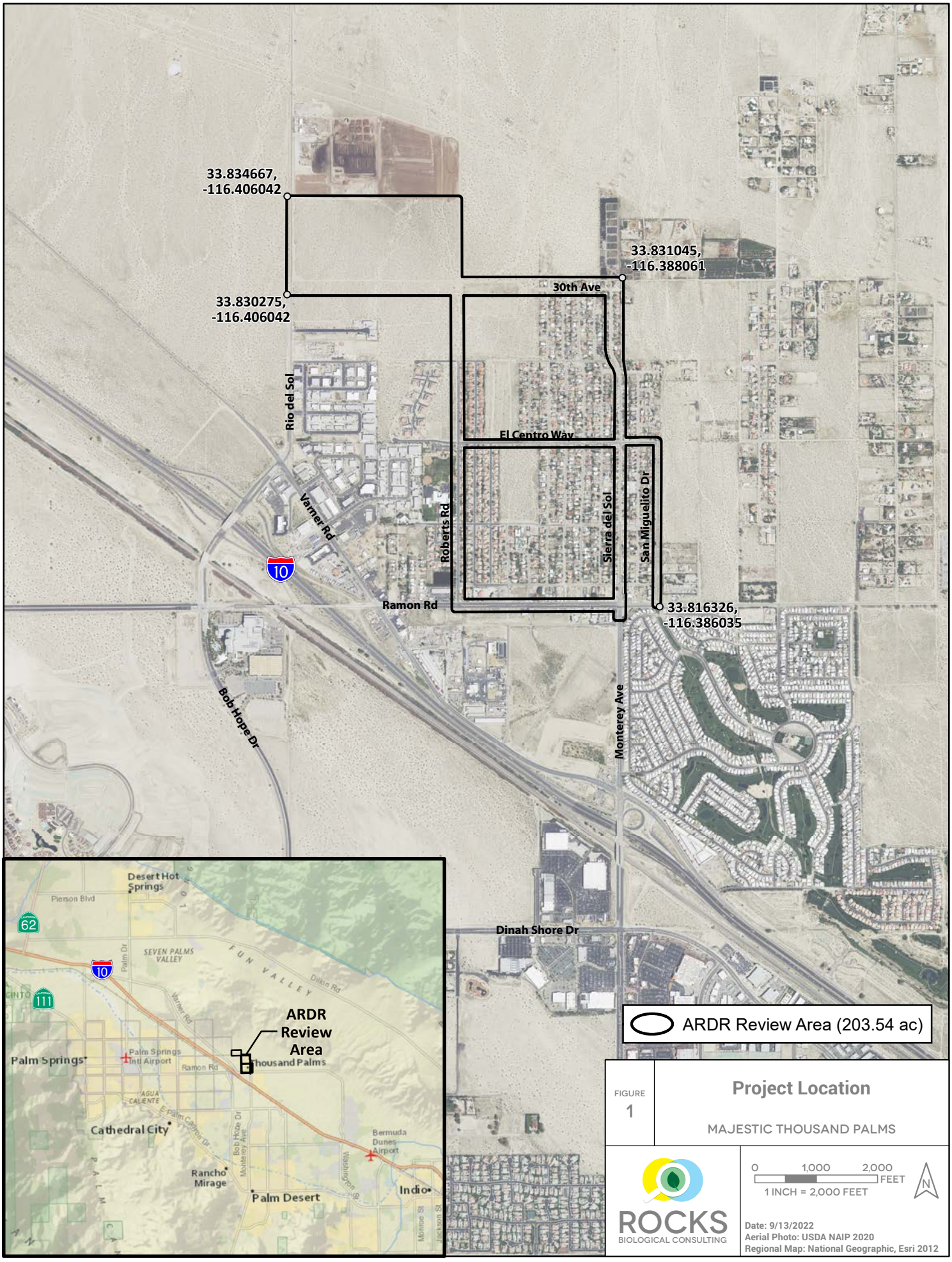


FIGURE 1

Project Location

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

1 INCH = 2,000 FEET

N

Date: 9/13/2022
Aerial Photo: USDA NAIP 2020
Regional Map: National Geographic, Esri 2012

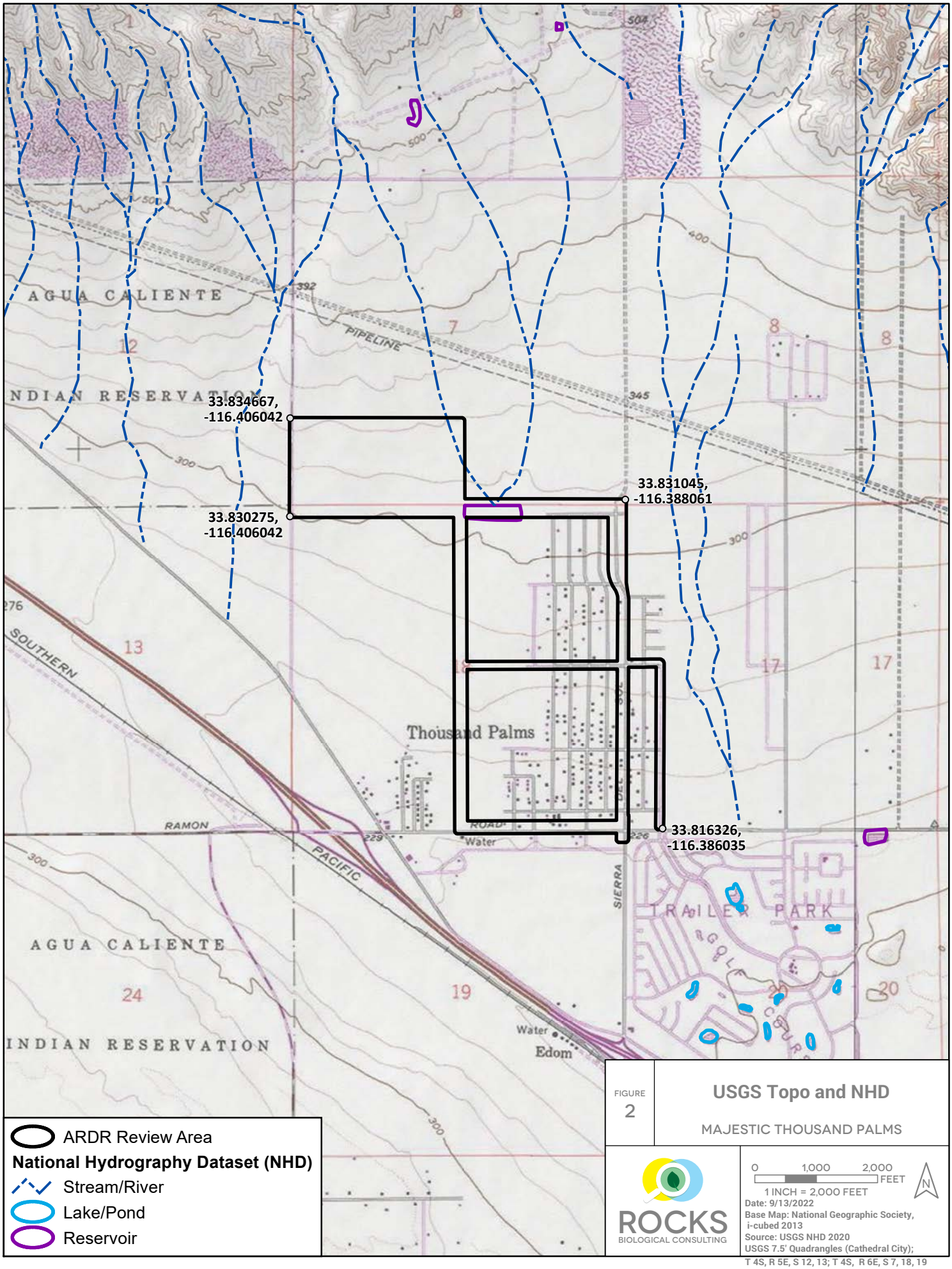


FIGURE 2

USGS Topo and NHD

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

1 INCH = 2,000 FEET

Date: 9/13/2022

Base Map: National Geographic Society, i-cubed 2013

Source: USGS NHD 2020

USGS 7.5' Quadrangles (Cathedral City);

T 4S, R 5E, S 12, 13; T 4S, R 6E, S 7, 18, 19

ARDR Review Area
NHD Watershed 8-digit HUC
NHD Watershed 10-digit HUC
NHD Watershed 12-digit HUC

Santa Ana
HUC 8 - 18070203

Headwaters Whitewater River
HUC 10 - 1810020103

Little Morongo Creek-Morongo Wash
HUC 10 - 1810020104

East Wide Canyon
HUC 12 - 181002010601

Southern Mojave
HUC 8 - 18100100

San Gorgonio River
HUC 10 - 1810020101

Whitewater River
HUC 8 - 18100201

Fan Canyon
HUC 12 - 181002010603

Thousand Palms Canyon
HUC 12 - 181002010604

Upper Whitewater River
HUC 10 - 1810020106

Pushawalla Canyon
HUC 12 - 181002010605

Town of Thousand Palms
HUC 12 - 181002010602

See Detail

ARDR
Review Area

Town of Biskra Palms-
Whitewater River
HUC 12 - 181002010609

Cathedral Canyon-
Whitewater River
HUC 12 - 181002010606

Middle Whitewater River
HUC 10 - 1810020107

San Jacinto
HUC 8 - 18070202

City of Indian Wells-
Whitewater River
HUC 12 - 181002010608

Palm Canyon Wash
HUC 10 - 1810020102

Cat Creek-Whitewater River
HUC 12 - 181002010607

Deep Canyon
HUC 10 - 1810020105

Lower Whitewater River
HUC 10 - 1810020108

Salton Sea
HUC 8 - 18100204

Santa Margarita
HUC 8 - 18070302

San Felipe Creek
HUC 8 - 18100203

Salton Sea

FIGURE 3

Watershed

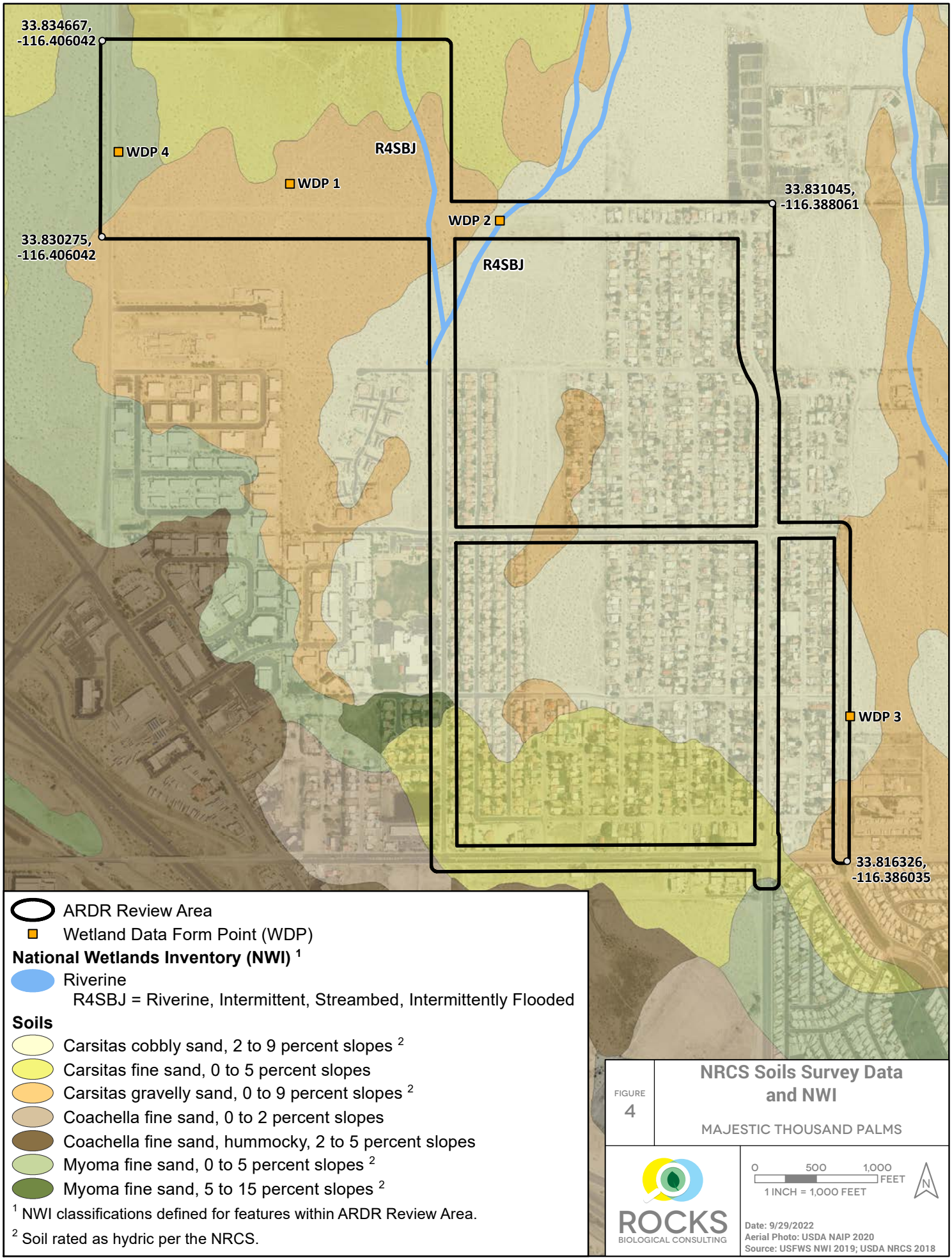
MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 2.5 5 MILES
1 INCH = 5 MILES

N

Date: 9/13/2022
Aerial Photo: Maxar, Esri 2021
Source: USGS NHD 2020



ARDR Review Area

Wetland Data Form Point (WDP)

National Wetlands Inventory (NWI) [1]

Riverine

R4SBJ = Riverine, Intermittent, Streambed, Intermittently Flooded

Soils

- Carsitas cobbly sand, 2 to 9 percent slopes [2]
- Carsitas fine sand, 0 to 5 percent slopes
- Carsitas gravelly sand, 0 to 9 percent slopes [2]
- Coachella fine sand, 0 to 2 percent slopes
- Coachella fine sand, hummocky, 2 to 5 percent slopes
- Myoma fine sand, 0 to 5 percent slopes [2]
- Myoma fine sand, 5 to 15 percent slopes [2]

[1] NWI classifications defined for features within ARDR Review Area.

[2] Soil rated as hydric per the NRCS.

FIGURE 4

NRCS Soils Survey Data and NWI

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 500 1,000 FEET

1 INCH = 1,000 FEET

N

Date: 9/29/2022
Aerial Photo: USDA NAIP 2020
Source: USFWS NWI 2019; USDA NRCS 2018

ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

Corps Aquatic Resources

Non-Wetland Waters (3.54 ac)

Other Features [1]

Swale

[1] Features anticipated to be non-jurisdictional.

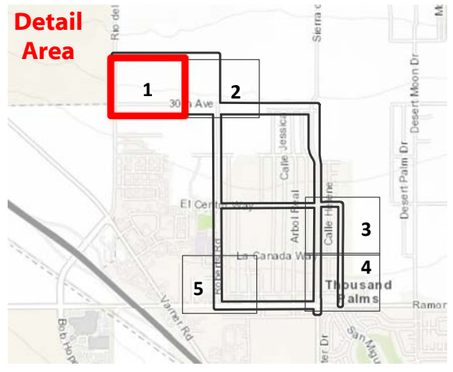


FIGURE 5A

PAGE 1 OF 5

Corps Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

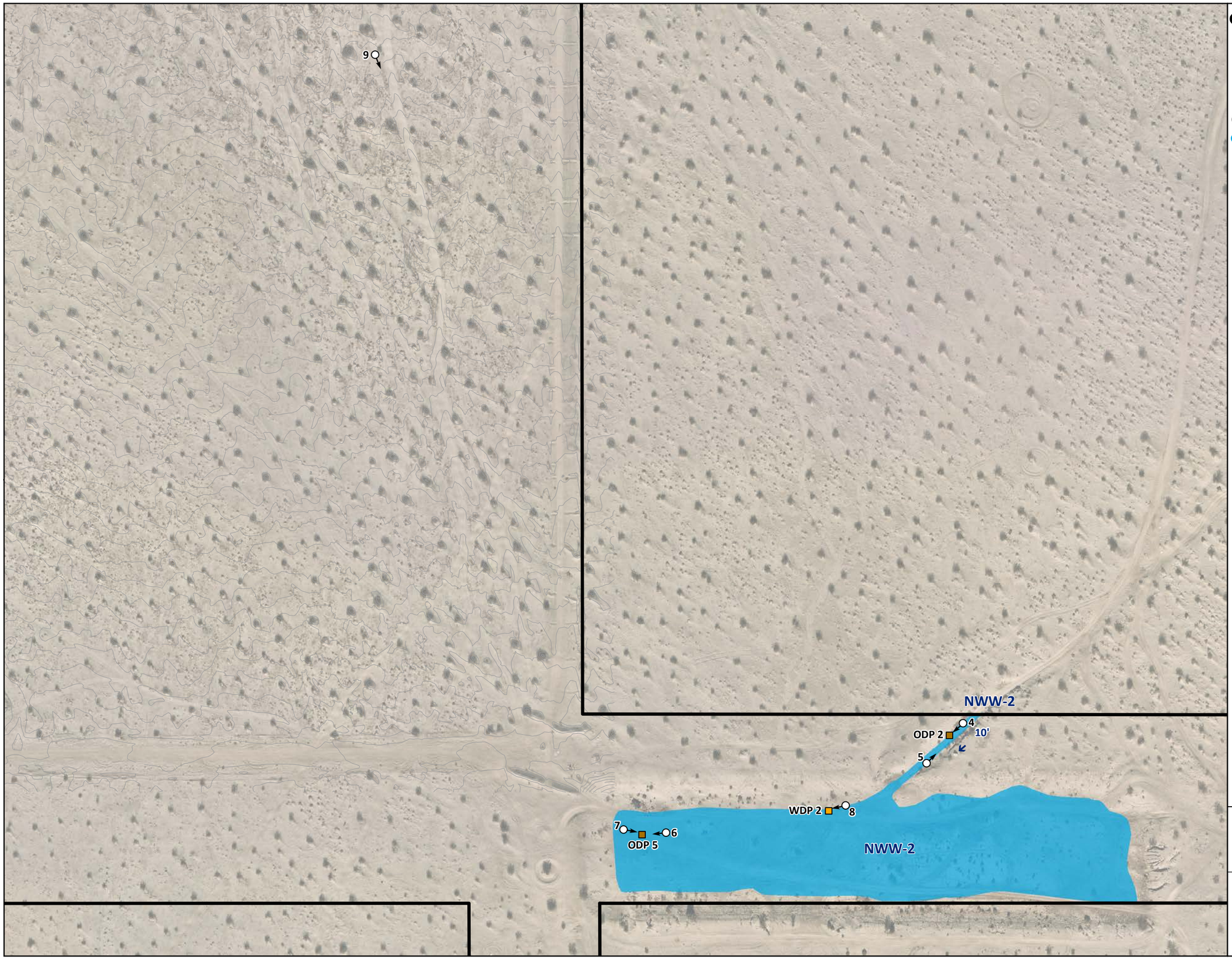
0 75 150 FEET

1 INCH = 150 FEET

N

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)
Photo Point
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Flow Direction

Corps Aquatic Resources

Non-Wetland Waters (3.54 ac)

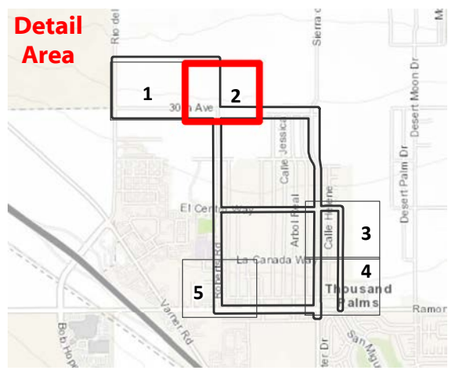


FIGURE 5A
PAGE 2 OF 5

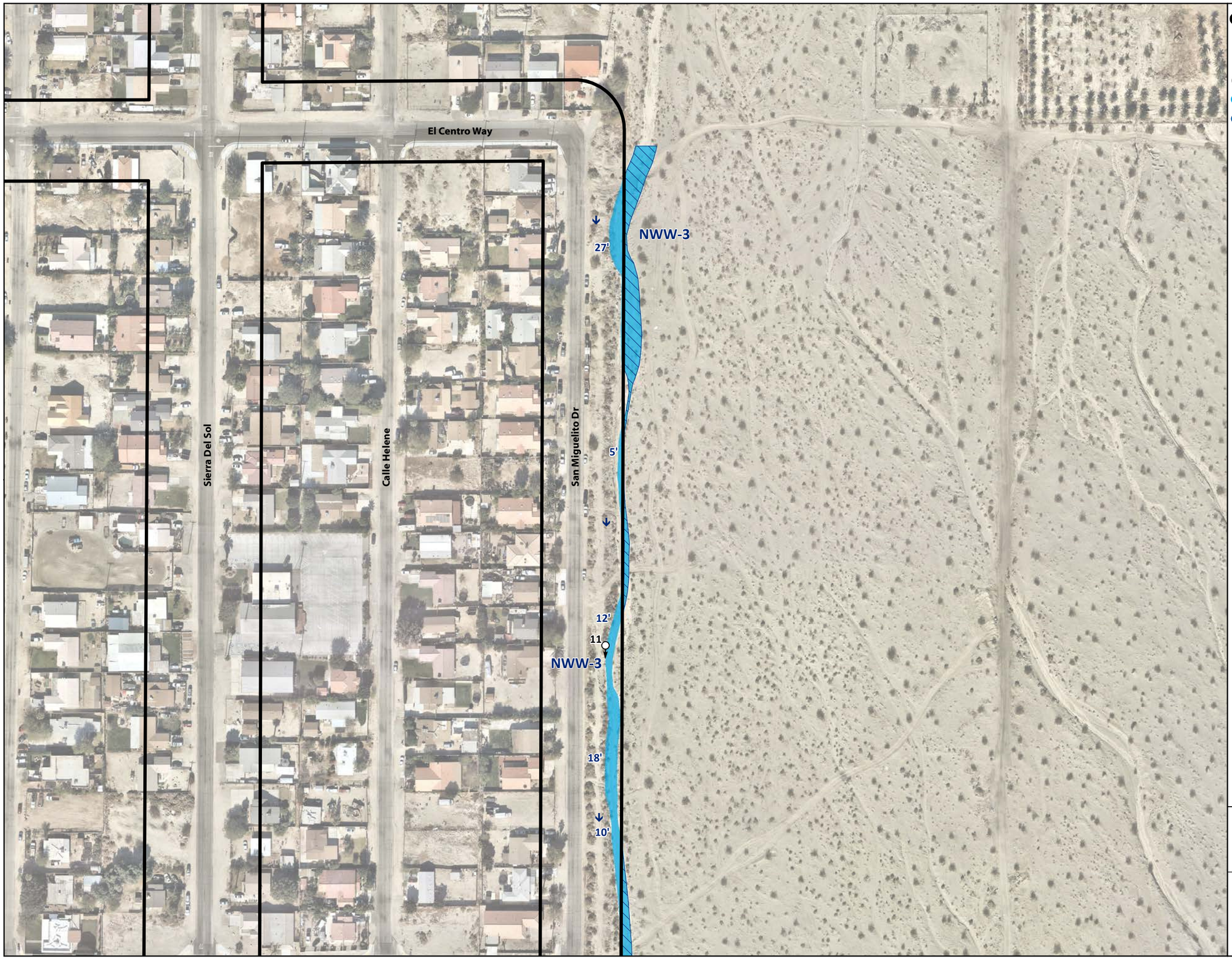
Corps Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/4/2022
Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)
Photo Point
Flow Direction

Corps Aquatic Resources

Non-Wetland Waters (3.54 ac)
Non-Wetland Waters (Offsite)

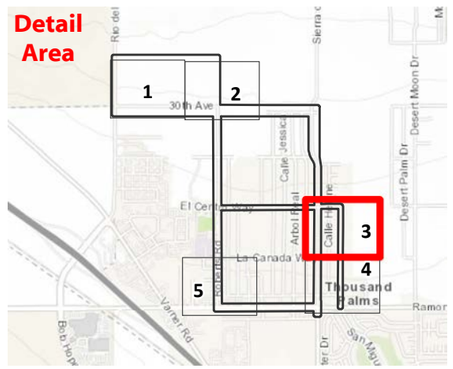


FIGURE 5A
PAGE 3 OF 5

Corps Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/4/2022
Aerial Photo: Nearmap 2022

ARDR Review Area (203.54 ac)
Photo Point
OHWM Datasheet Point (ODP)
Wetland Data Form Point (WDP)
Flow Direction

Corps Aquatic Resources

Non-Wetland Waters (3.54 ac)
Non-Wetland Waters (Offsite)
Non-Wetland Waters - Concrete (0.01 ac)

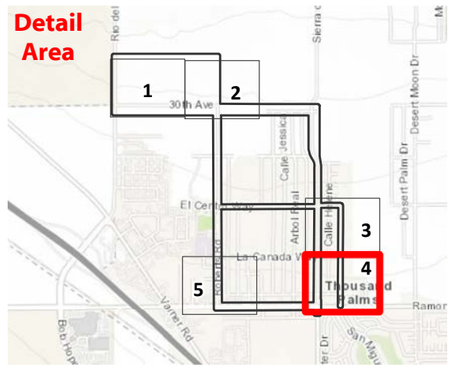


FIGURE 5A
PAGE 4 OF 5

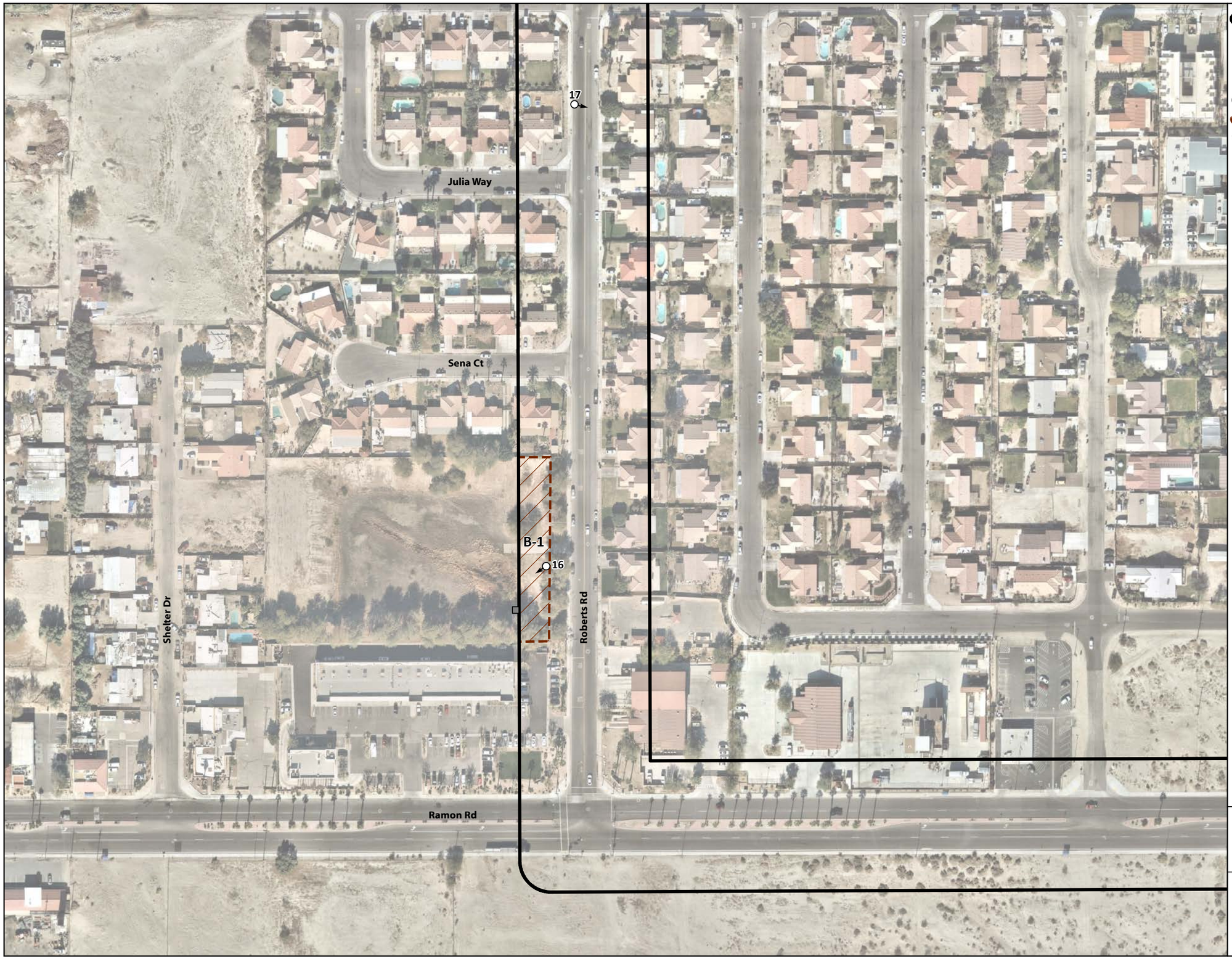
Corps Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/4/2022
Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)
Photo Point
Concrete Outfall
Flow Direction

Other Features [1]

Basin

[1] Features anticipated to be non-jurisdictional.

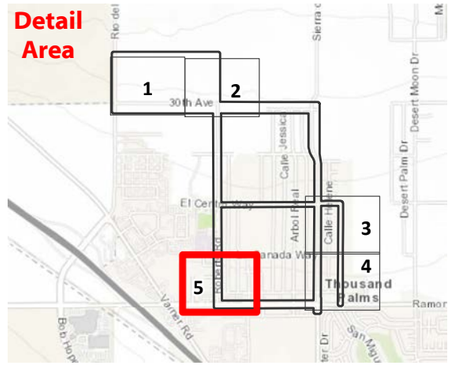


FIGURE 5A
PAGE 5 OF 5

Corps Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/4/2022
Aerial Photo: Nearmap 2022

ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)

Other Features [1]

Swale

[1] Features anticipated to be non-jurisdictional.

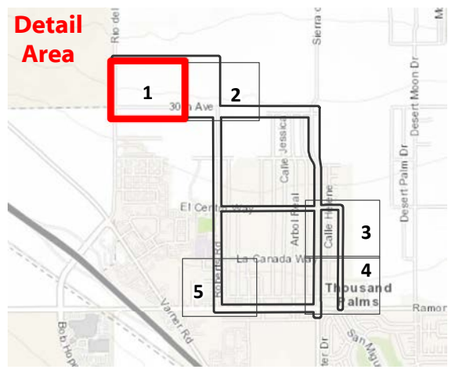


FIGURE 5B

PAGE 1 OF 5

RWQCB Aquatic Resources

MAJESTIC THOUSAND PALMS

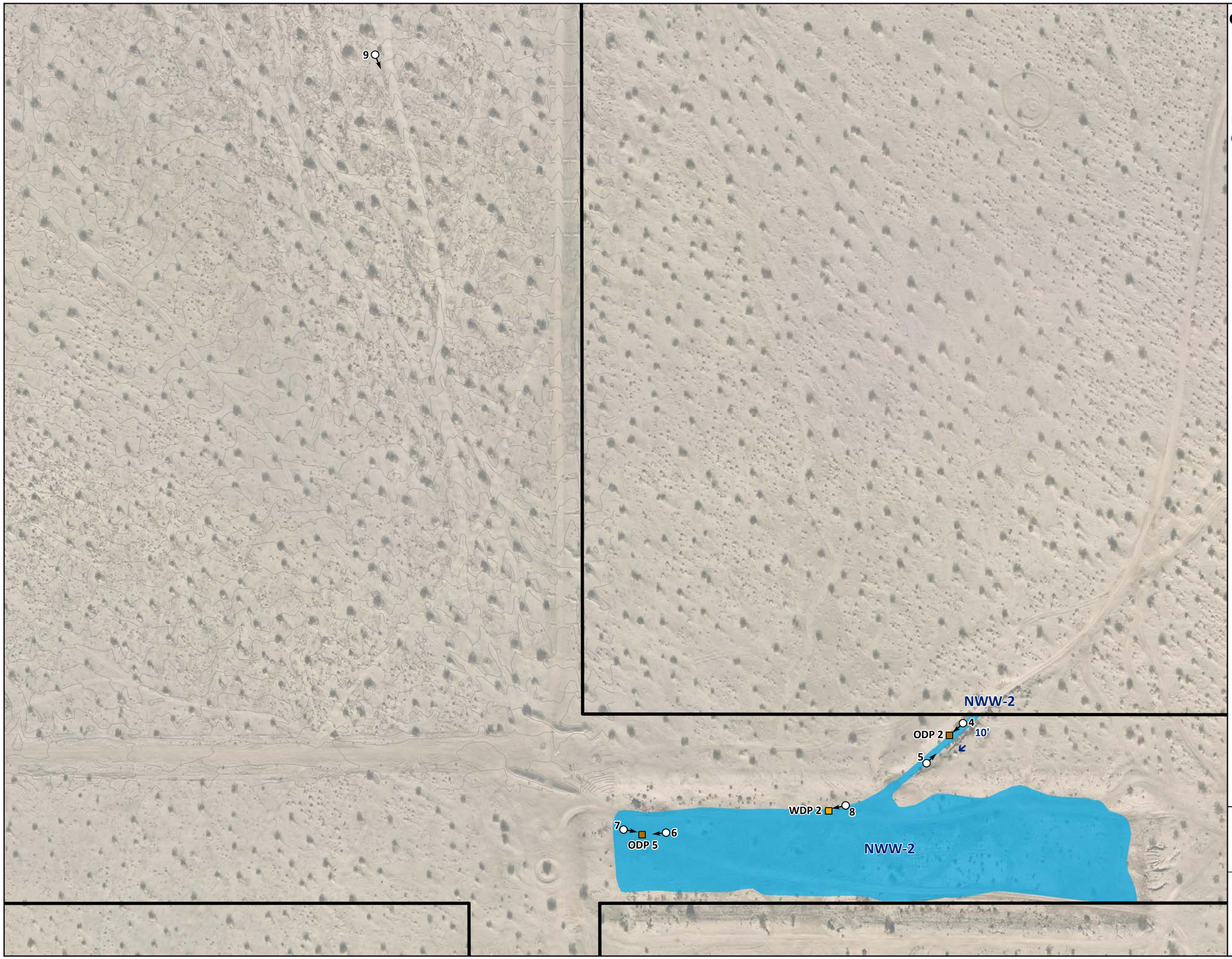
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)

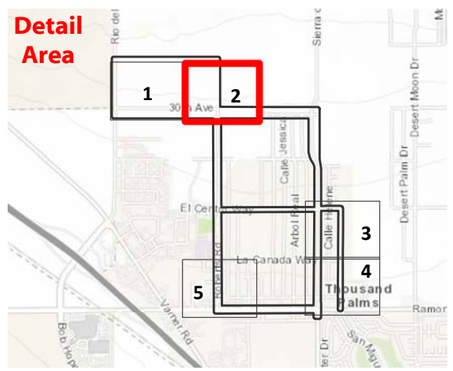


FIGURE 5B

PAGE 2 OF 5

RWQCB Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

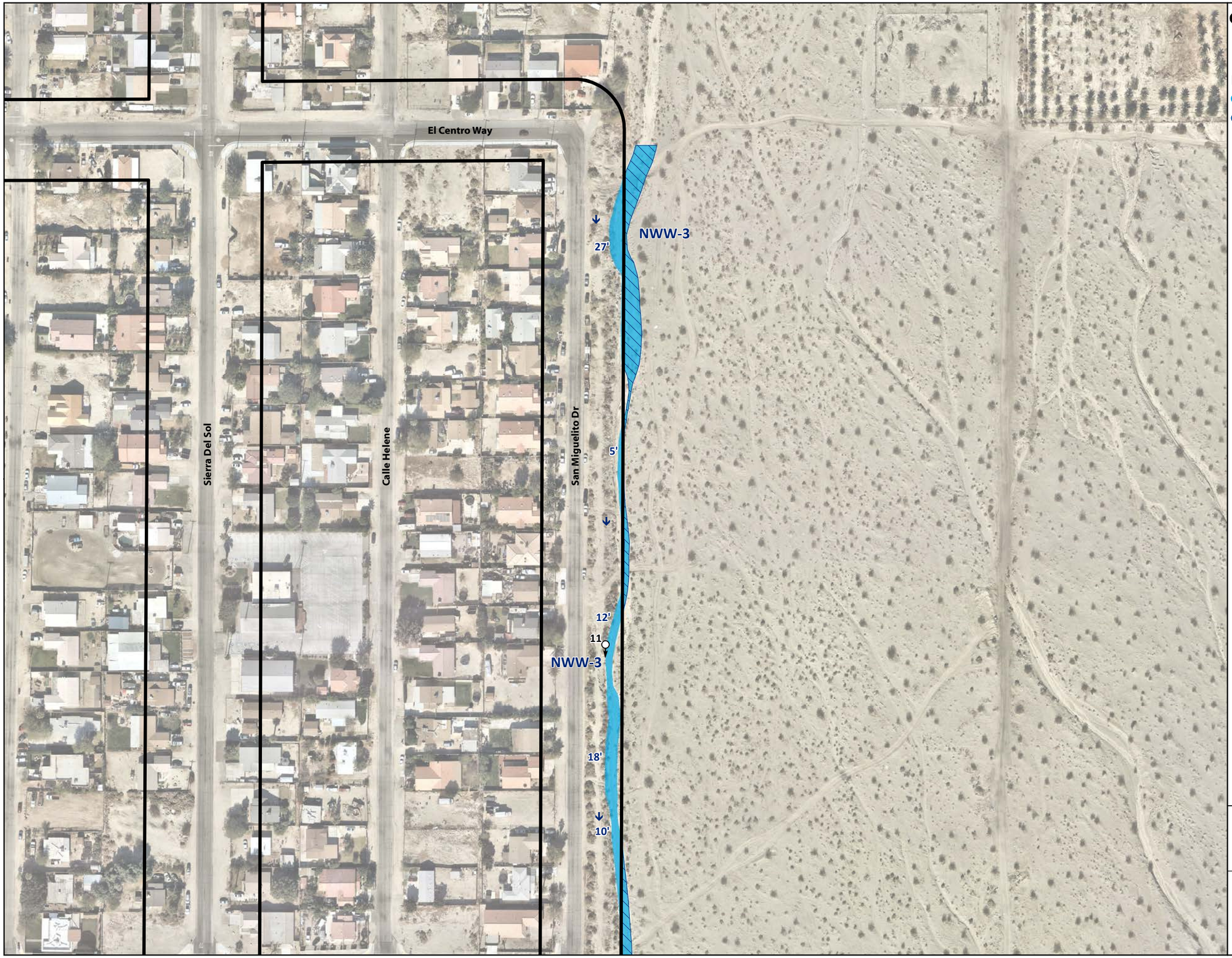
0 75 150 FEET

1 INCH = 150 FEET

N

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)
Photo Point
Flow Direction

RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)
Non-Wetland Waters (Offsite)

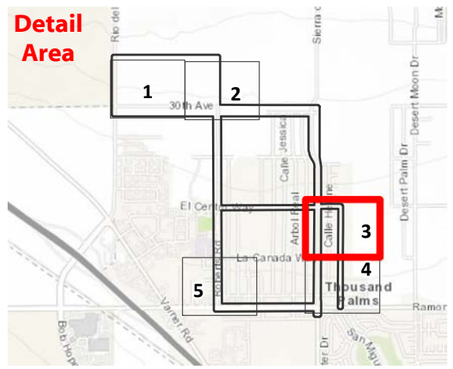


FIGURE 5B
PAGE 3 OF 5

RWQCB Aquatic Resources

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET
1 INCH = 150 FEET

Date: 10/4/2022
Aerial Photo: Nearmap 2022

ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

RWQCB Aquatic Resources

Non-Wetland Waters (3.54 ac)

Non-Wetland Waters (Offsite)

Non-Wetland Waters - Concrete (0.01 ac)

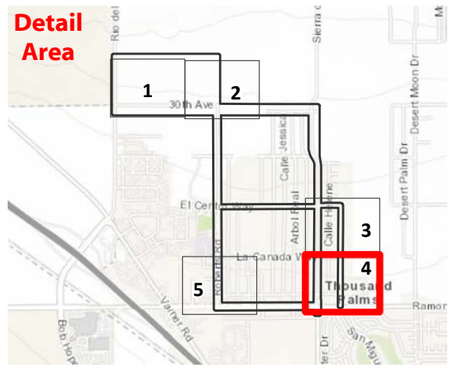


FIGURE 5B

PAGE 4 OF 5

RWQCB Aquatic Resources

MAJESTIC THOUSAND PALMS

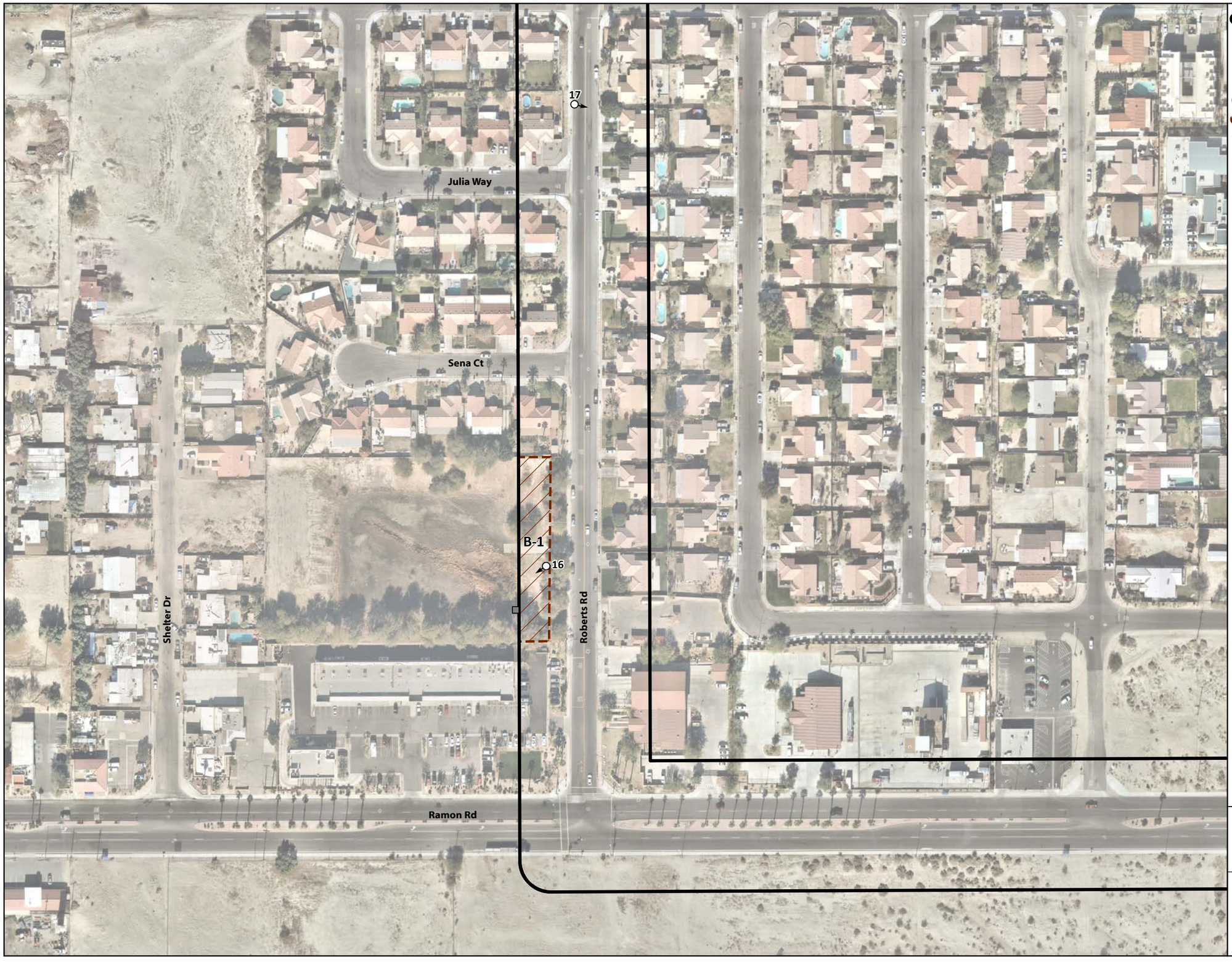
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)
Photo Point
Concrete Outfall
Flow Direction

Other Features [1]

Basin

[1] Features anticipated to be non-jurisdictional.

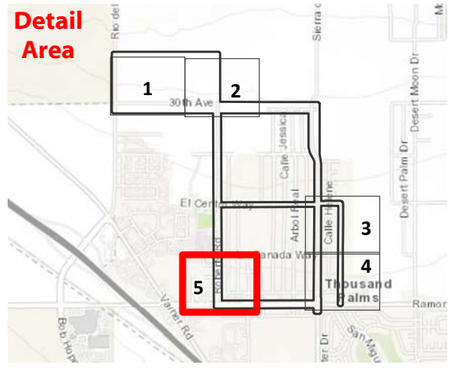


FIGURE 5B

PAGE 5 OF 5

RWQCB Aquatic Resources

MAJESTIC THOUSAND PALMS

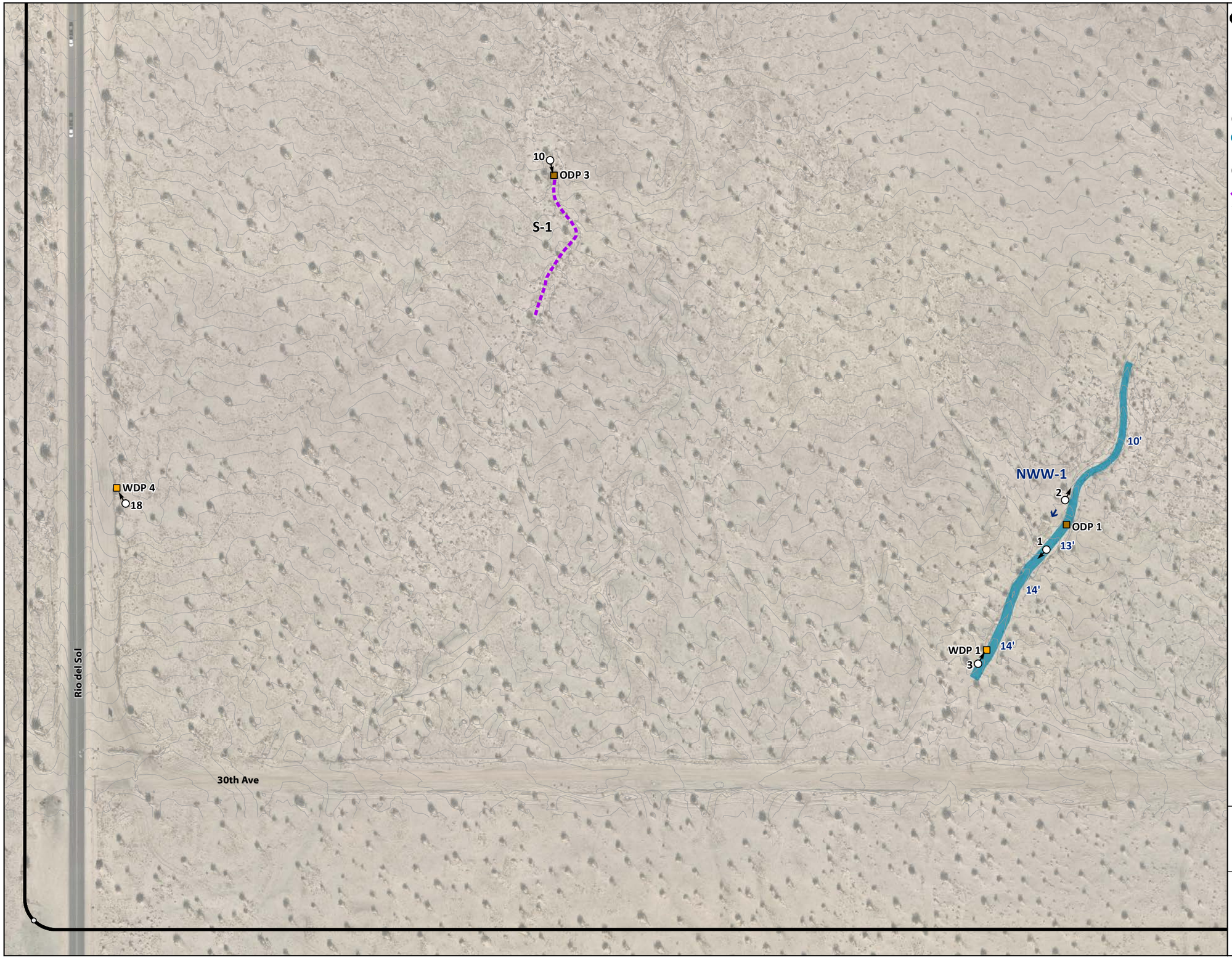
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

CDFW Vegetated Streambed

Disturbed Sonoran Creosote Bush Scrub (4.92 ac)

Other Features [1]

Swale

[1] Features anticipated to be non-jurisdictional.

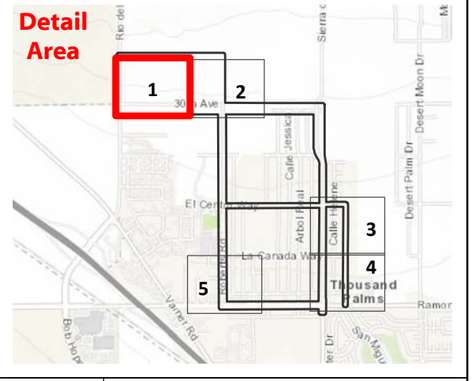


FIGURE 5C

PAGE 1 OF 5

CDFW Streambed and Riparian Habitats

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022

ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

CDFW Vegetated Streambed

Disturbed Sonoran Creosote Bush Scrub (4.92 ac)

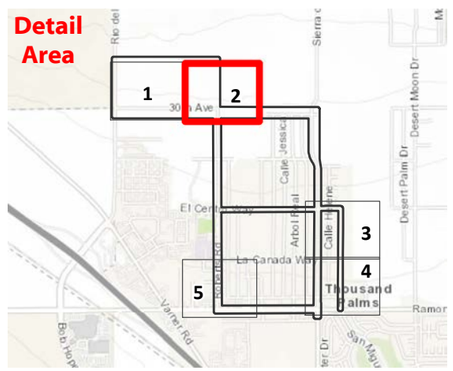


FIGURE 5C

PAGE 2 OF 5

CDFW Streambed and Riparian Habitats

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

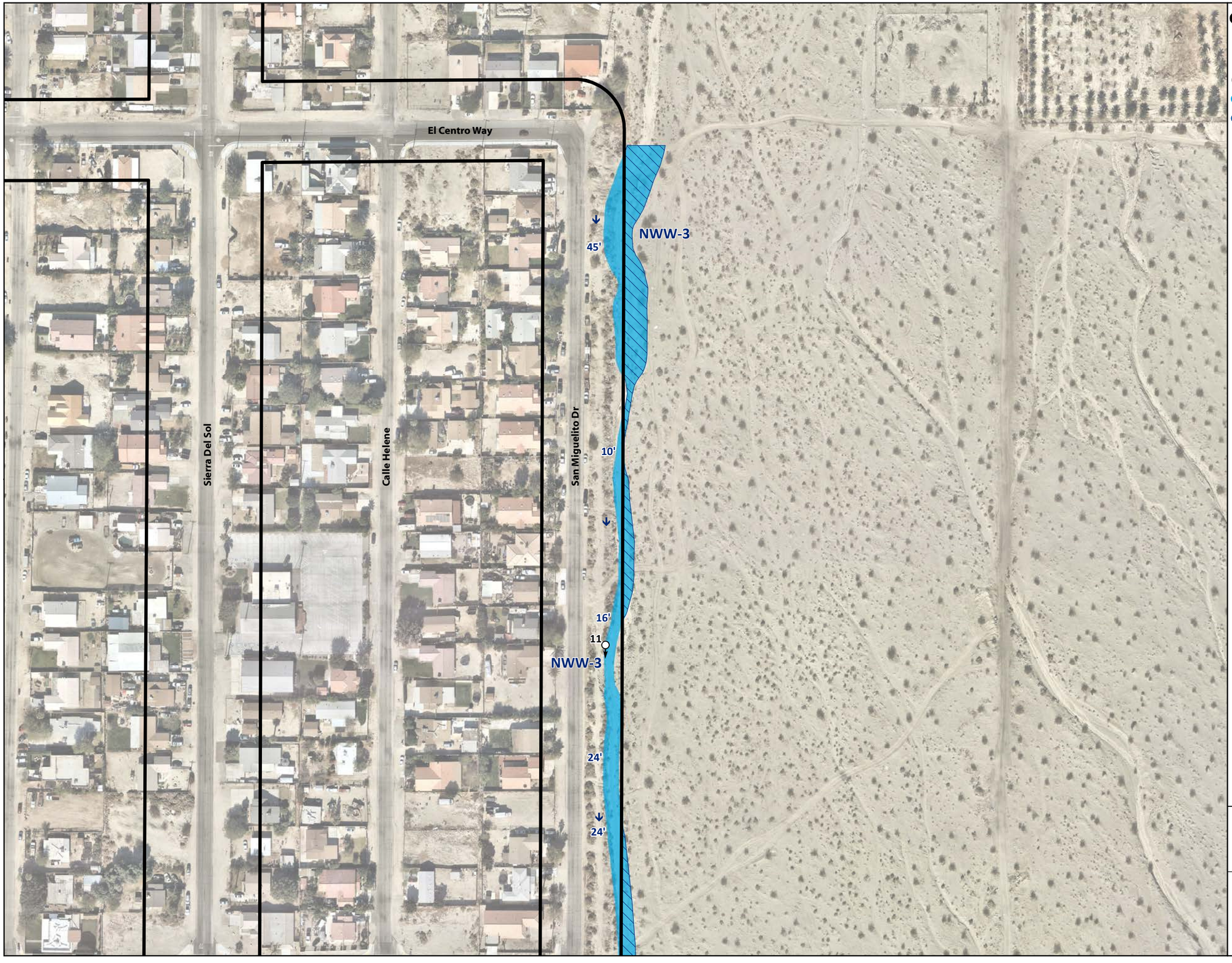
0 75 150 FEET

1 INCH = 150 FEET

N

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)

Photo Point

Flow Direction

CDFW Vegetated Streambed

Disturbed Desert Saltbush Scrub (0.88 ac)

Disturbed Desert Saltbush Scrub (Offsite)

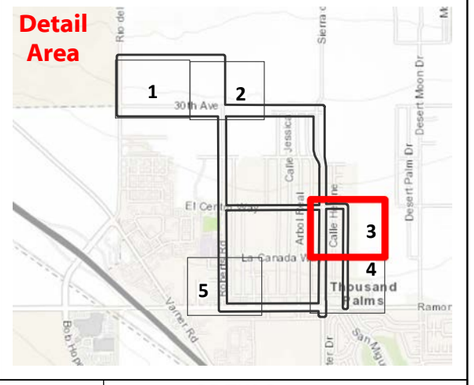


FIGURE 5C

PAGE 3 OF 5

CDFW Streambed and Riparian Habitats

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022

ARDR Review Area (203.54 ac)

Photo Point

OHWM Datasheet Point (ODP)

Wetland Data Form Point (WDP)

Flow Direction

CDFW Vegetated Streambed

Disturbed Desert Saltbush Scrub (0.88 ac)

Disturbed Desert Saltbush Scrub (Offsite)

CDFW Unvegetated Streambed

Developed - Concrete (0.01 ac)

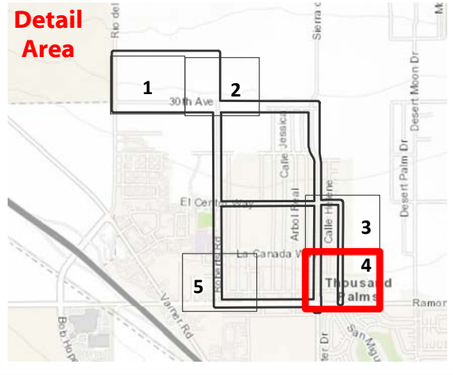


FIGURE 5C

PAGE 4 OF 5

CDFW Streambed and Riparian Habitats

MAJESTIC THOUSAND PALMS

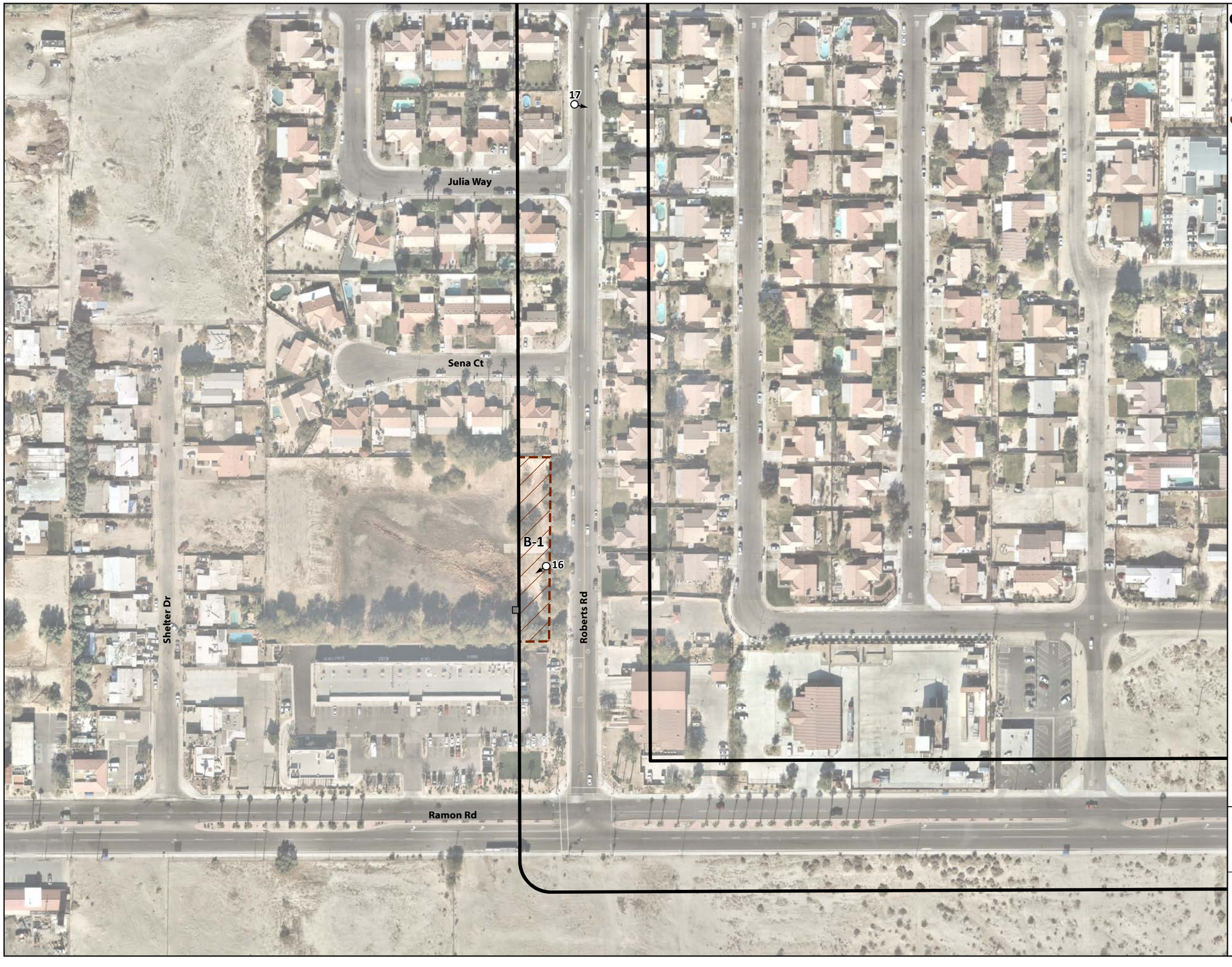
ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022



ARDR Review Area (203.54 ac)

Photo Point

Concrete Outfall

Flow Direction

Other Features [1]

Basin

[1] Features anticipated to be non-jurisdictional.

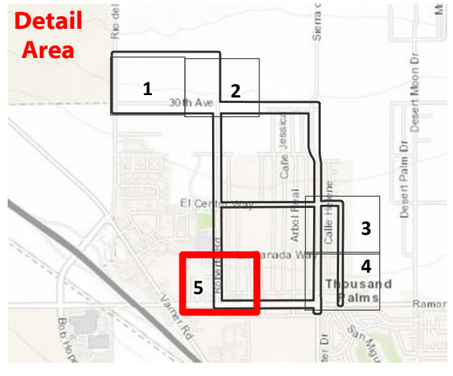


FIGURE 5C

PAGE 5 OF 5

CDFW Streambed and Riparian Habitats

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 75 150 FEET

1 INCH = 150 FEET

Date: 10/4/2022

Aerial Photo: Nearmap 2022

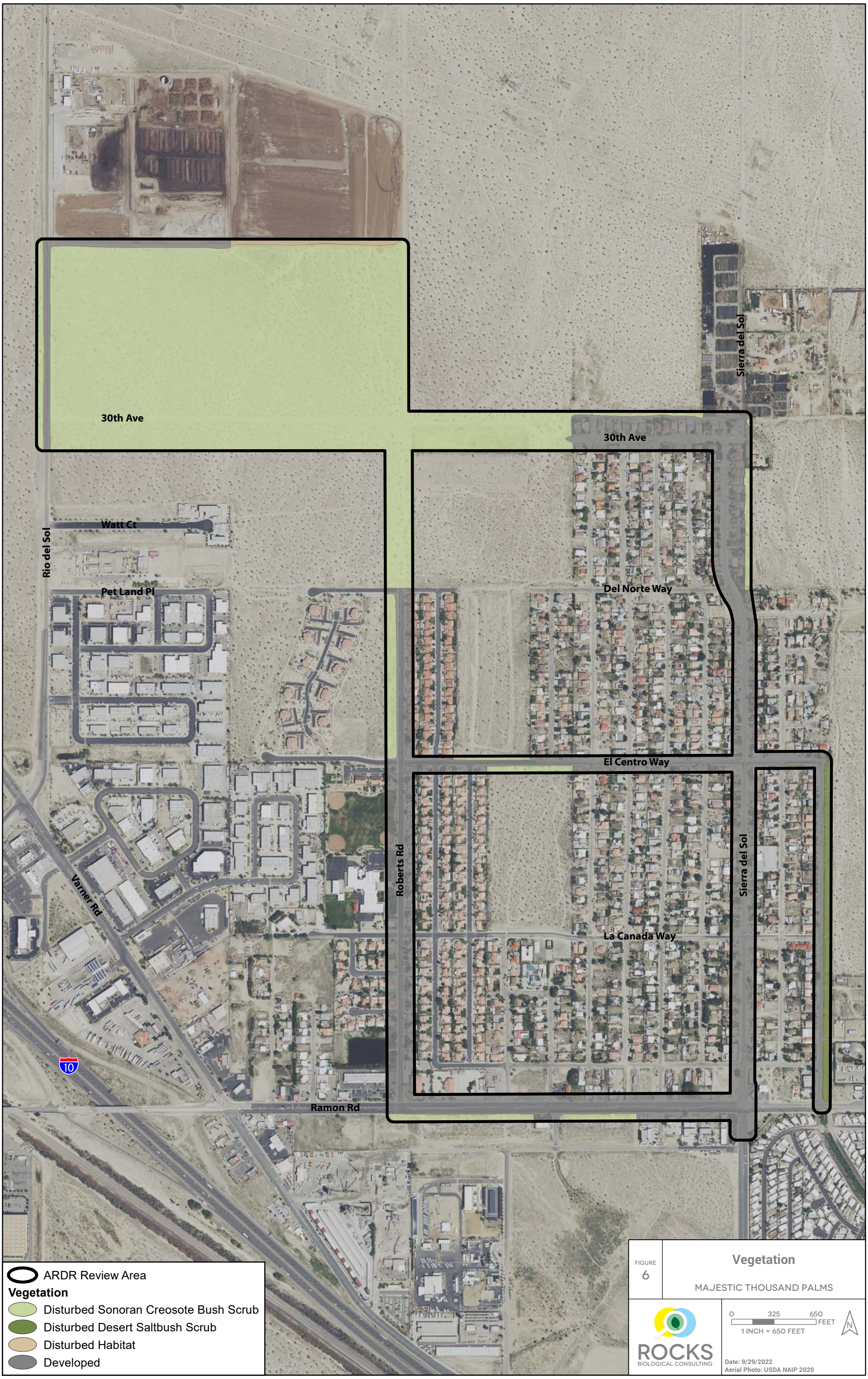


FIGURE 6

Vegetation

MAJESTIC THOUSAND PALMS

ROCKS BIOLOGICAL CONSULTING

0 325 650 FEET

1 INCH = 650 FEET

N

Date: 9/29/2022
Aerial Photo: USDA NAIP 2020

APPENDIX A

CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS

APPENDIX A. CHECKLIST: MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS, LOS ANGELES DISTRICT REGULATORY DIVISION, USACE, MARCH 16, 2017

REPORT SECTION/ PAGE NUMBER	MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS	ADDITIONAL NOTES
N/A	1. JD REQUEST AND FORMS: ☐ A cover letter indicating whether you are requesting a jurisdictional determination (JD). ☐ If you are requesting a JD, you must complete, sign, and return the Request for Corps Jurisdictional Determination (JD) sheet. ☐ For preliminary jurisdictional determinations the Preliminary Jurisdictional Determination Form must be signed and submitted.	N/A. A JD request will be provided under separate cover.
Section 9	2. CONTACT INFORMATION: Contact information for the ☑ applicant(s), ☑ property owner(s), and ☑ agent(s).	
N/A	3. SITE ACCESS: If the property owner or their representatives will not accompany the Corps to the site, a signed statement from the property owner(s) allowing Corps personnel to enter the property and to collect samples during normal business hours. If the property lacks direct access by public roads (in other words, access requires passage through private property not owned by the applicant), the owner or proponent must obtain permission from the adjacent property owner(s) to provide access for Corps personnel.	Property owner and/or representatives will accompany the Corps for a site visit upon request.
Section 2.1	4. LOCATION: ☑ Directions to the survey area, ☐ an address (if available) and ☑ one or more set of geographic coordinates expressed in decimal degrees.	
Section 3.2.1	5. DELINEATION MANUAL CONFIRMATION: ☑ A statement confirming the delineation has been conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and applicable regional supplement(s). ☑ The regional supplement(s) used must be identified. ☑ For OHWM delineations, a statement must be included confirming the use of the OHWM field guide or that it is not applicable.	
Section 6	6. AQUATIC RESOURCE(S) DESCRIPTION: ☑ A narrative describing all aquatic resources on-site and an explanation of the mapped boundaries and any complex transition zones. ☑ If the site contains resources that only meet one or two of the three wetland criteria or do not exhibit a clear OHWM, describe the rationale for their inclusion or exclusion from the delineation. ☑ Also explain if any erosional features, upland swales, ditches and other potential aquatic features were considered but not included in the delineation.	
Figures 1 and 5A; Section 6	7. AQUATIC RESOURCE MAPPING AND ACREAGE: ☑ Map of the outside survey boundary, ☑ total extent of aquatic and proposed non-aquatic features, ☑ type of feature(s) (waters of the United States or wetland),and include ☑ the total acreage for each polygon.	
Section 3.2; Table 1	8. FIELD WORK DATES: ☑ Date(s) field work was completed.	
Table 6	9. AQUATIC RESOURCE TABLE: A table listing all aquatic resources. The table must include ☑ the name of each aquatic resource (actual or arbitrary), ☑ its Cowardin type, ☑ acreage, ☑ summary of OHWM/wetland presence, ☑ dominant vegetation for each, and ☑ location (latitude/longitude in decimal degrees). ☑ For linear features, the table must show both acreage and linear feet as well as channel measurements (active channel width).	
Section 4; Appendices D, E, and F	10. FIELD CONDITIONS: A description of existing field conditions, including ☑ current land use, ☑ normal conditions, ☑ flood/drought conditions, ☐ irrigation practices, ☑ past or recent manipulation to the site, and ☐ characteristics considered atypical (for criteria see OHWM and wetland supplement guides). ☑ Include WETS tables or pre-site visit precipitation data as appropriate: https://www.wcc.nrcs.usda.gov/climate/wets_doc.html.*	N/A for unchecked; APT data provided in

		lieu of WETS tables
Section 4.2	11. HYDROLOGY: ☑ A discussion of the hydrology at the site, including ☑ all known surface or subsurface sources, ☑ drainage gradients, ☑ downstream connections to the nearest traditional navigable waterway or interstate water, and ☑ any influence from manmade water sources such as irrigation.	
N/A	12. REMOTE SENSING: ☐ If remote sensing was used in the delineation, provide an explanation of how it was used and include the name, date and source of the tools and data used and copies of the maps/photographs.	N/A
Section 4.1; Table 2; Figure 4; Appendix F	13. SOILS: ☑ Soil descriptions, ☑ soil map(s), ☑ soil photos, and ☑ a discussion of hydric soils (for wetland delineations only).	
Figure 2	14. USGS QUADRANGLE: ☑ A site location map on a 7.5-minute USGS quadrangle. The map must provide ☑ the name of the USGS quadrangle, ☑ Section, ☑ Township, ☑ Range, and ☑ the latitude and longitude in decimal degree format.	
N/A	15. BULK UPLOAD FORM: ☑ For sites with 3 or more separate aquatic features a completed copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet must be submitted.	
Figure 5 series	16. FIGURES: ☑ Map(s) of all delineated aquatic resources in accordance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Program.	
Figure 5 series and Appendix F	17. SITE PHOTOGRAPHS: ☑ Ground photographs showing representative aquatic resource sites (or lack of), ☑ as well as an accompanying map of photo-points and table of photographic information (see Final Map and Drawing Standards for the South Pacific Division Regulatory Program item no. 8 a-c).	
Appendix D	18. DATA FORMS: ☑ Completed data forms including all essential information to make a jurisdictional determination [e.g. 2006 Wetland Determination Data Form -- Arid West Supplement; 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet].	
Section 3	19. METHODS: ☑ A description of the methods used to survey the aquatic resource boundaries. ☑ If GPS data is used, the level of accuracy must be included. Ideally, the GPS equipment should have the capability of sub-meter (<=1 meter) level horizontal accuracy.	
Appendix H	20. GIS DATA: ☑ Digital data for the site, aquatic resource boundaries, and data point locations must be provided in a geographic information system (GIS) format, preferably either ESRI shapefiles or Geodatabase format, but GoogleEarth KMZ or KML files may be acceptable non-complex projects. Each GIS data file must be accompanied by a metadata file containing the appropriate geographic coordinate system, projection, datum, and labeling description. If GIS data is unavailable or otherwise cannot be produced and the Corps determines a site visit is necessary, the aquatic resource boundaries should be physically marked with numbered flags or stakes to facilitate verification by the Corps.	

APPENDIX B

APPLICABLE AQUATIC RESOURCE PROTECTION REGULATIONS

APPENDIX B. APPLICABLE AQUATIC RESOURCE PROTECTION REGULATIONS

Several regulations have been established by federal, state, and local agencies to protect and conserve aquatic resources. The descriptions below provide a brief overview of agency regulations that may be applicable to the project.

Executive Order 11990

Executive Order 11990 aims to avoid direct or indirect impacts on wetlands from federal or federally approved projects when a practicable alternative is available. If wetland impacts cannot be avoided, all practicable measures to minimize harm must be included.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act (33 U.S. Code [USC] § 1251 et seq.; CWA), the U.S. Army Corps of Engineers (Corps) is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 Code of Federal Regulations (CFR) 328.3 (51 Federal Register [FR] 41217, November 13, 1983; 53 FR 20764, June 6, 1988) and further defined by the 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC; 531 U.S. 159) decision and the 2006 *Rapanos v. United States* (547 U.S. 715) decision. The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The Regional Water Quality Control Board (RWQCB), a division of the State Water Resources Control Board, provides oversight of the Section 401 certification process in California. The RWQCB is required to provide Water Quality Certification for licenses or permits that authorize an activity that may result in a discharge from a point source into a water of the U.S. Water Quality Certification authorization "is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements" (40 CFR 121.3).

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides for statewide coordination of water quality regulations. The SWRCB was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could

affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

California Fish and Game Code Section 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code (CFGC), California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

APPENDIX C

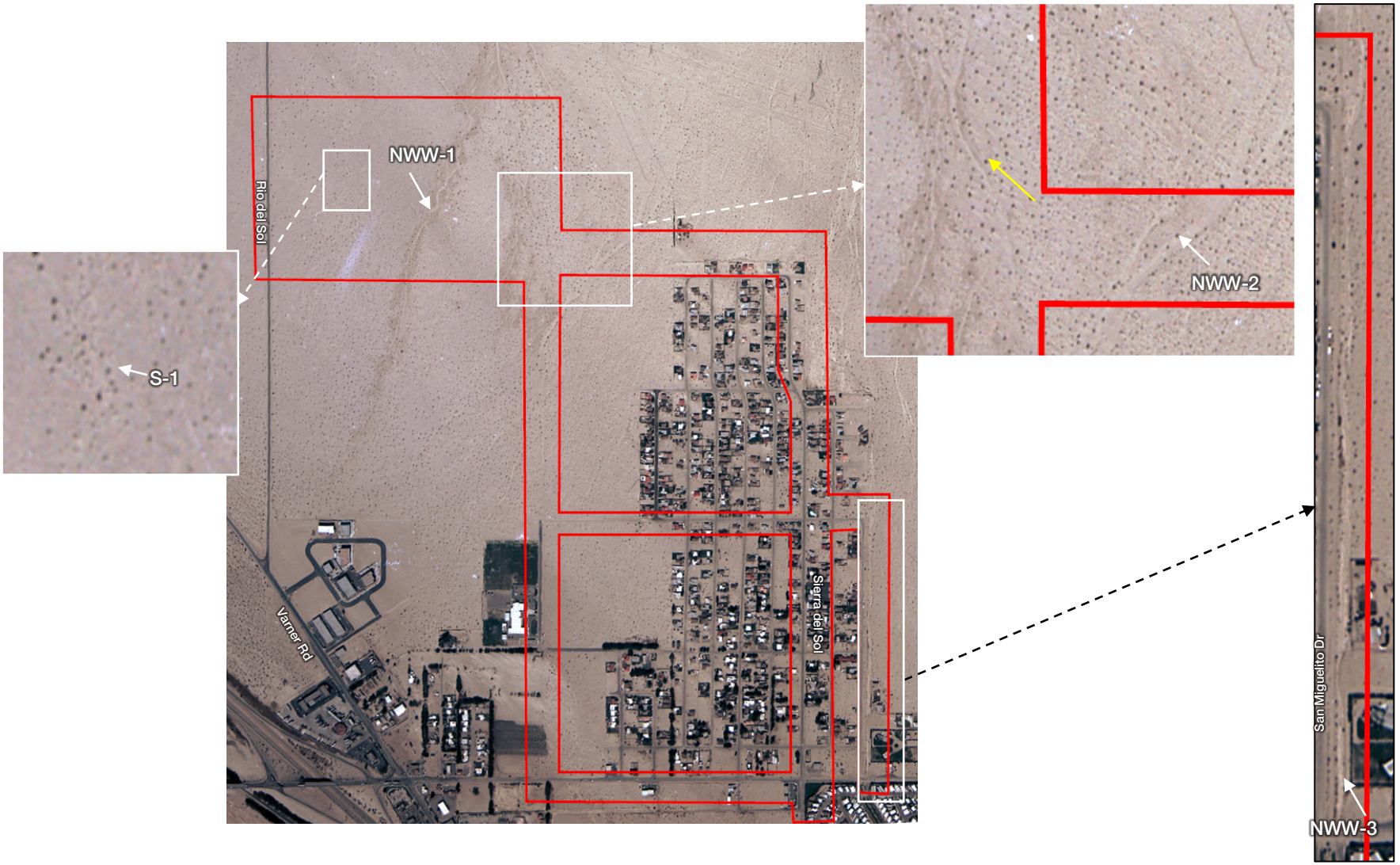
RECENT AND HISTORIC AERIALS ANALYSIS

Appendix C. Recent and Historic Aerials Analysis

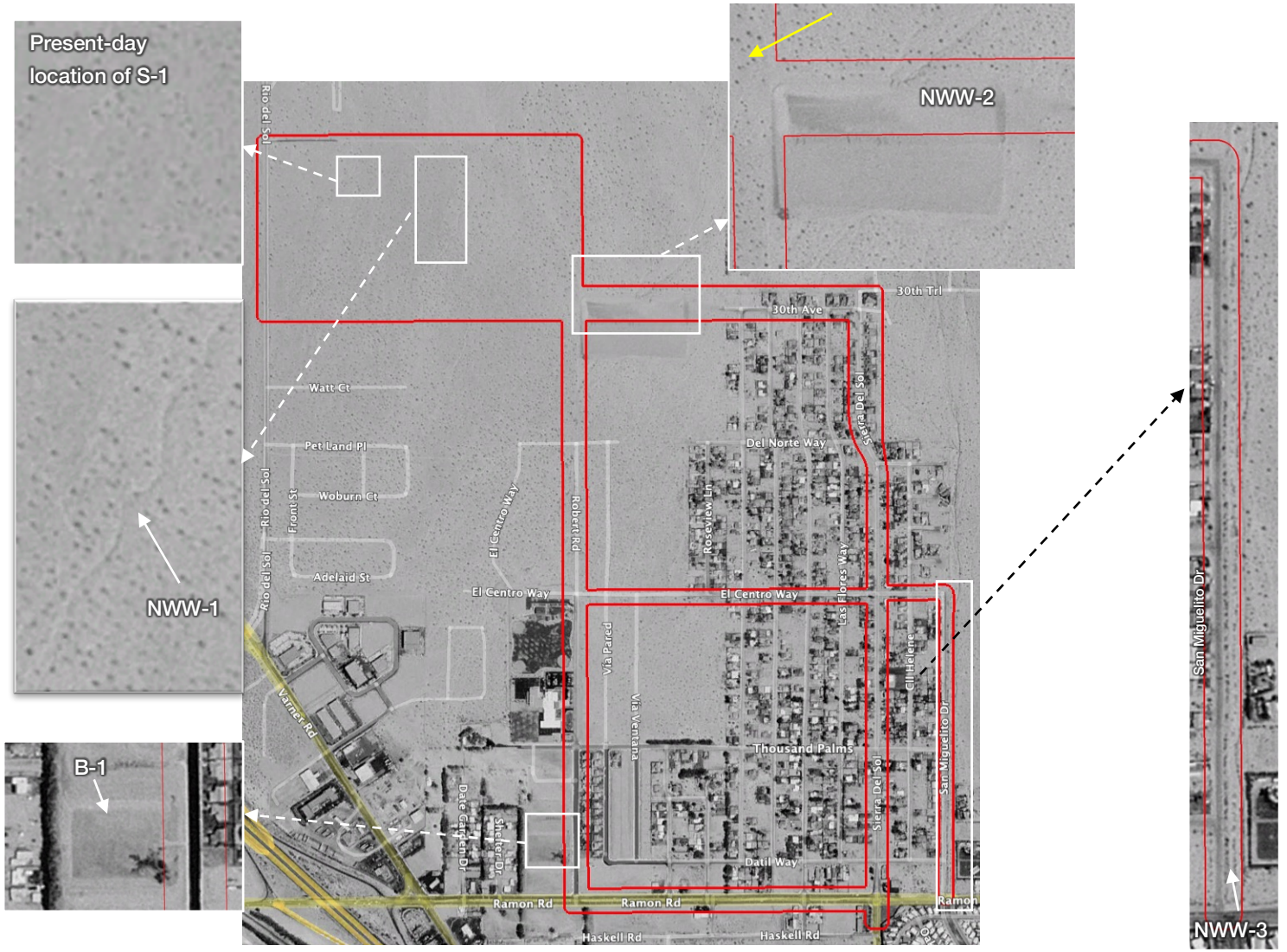
Sources: Google Earth Pro and University of California – Santa Barbara

September 1953 – Little development occurs within and surrounding the northern and western extents of the review area in the September 1953 aerial. Varner Road, Ramon Road, and Sierra del Sol appear in their approximate present-day locations. Residential development is present within and surrounding segments of the southern portion of the review area and an agricultural operation occurs to the southwest of the review area. Non-Wetland Water (NWW-) 1 and the northern portion of NWW-2 generally appear in their approximate present-day locations; however, NWW-2 appears to continue off site and the detention basin within NWW-2 is not present. NWW-3 (and San Miguelito Road directly to the west), Swale (S-) 1, and Basin (B-) 1 are not visible in the September 1953 aerial; no features are visible in the westernmost area mapped by the USGS NHD as "Stream/River" and by the USFWS NWI as "Riverine" (yellow arrow).

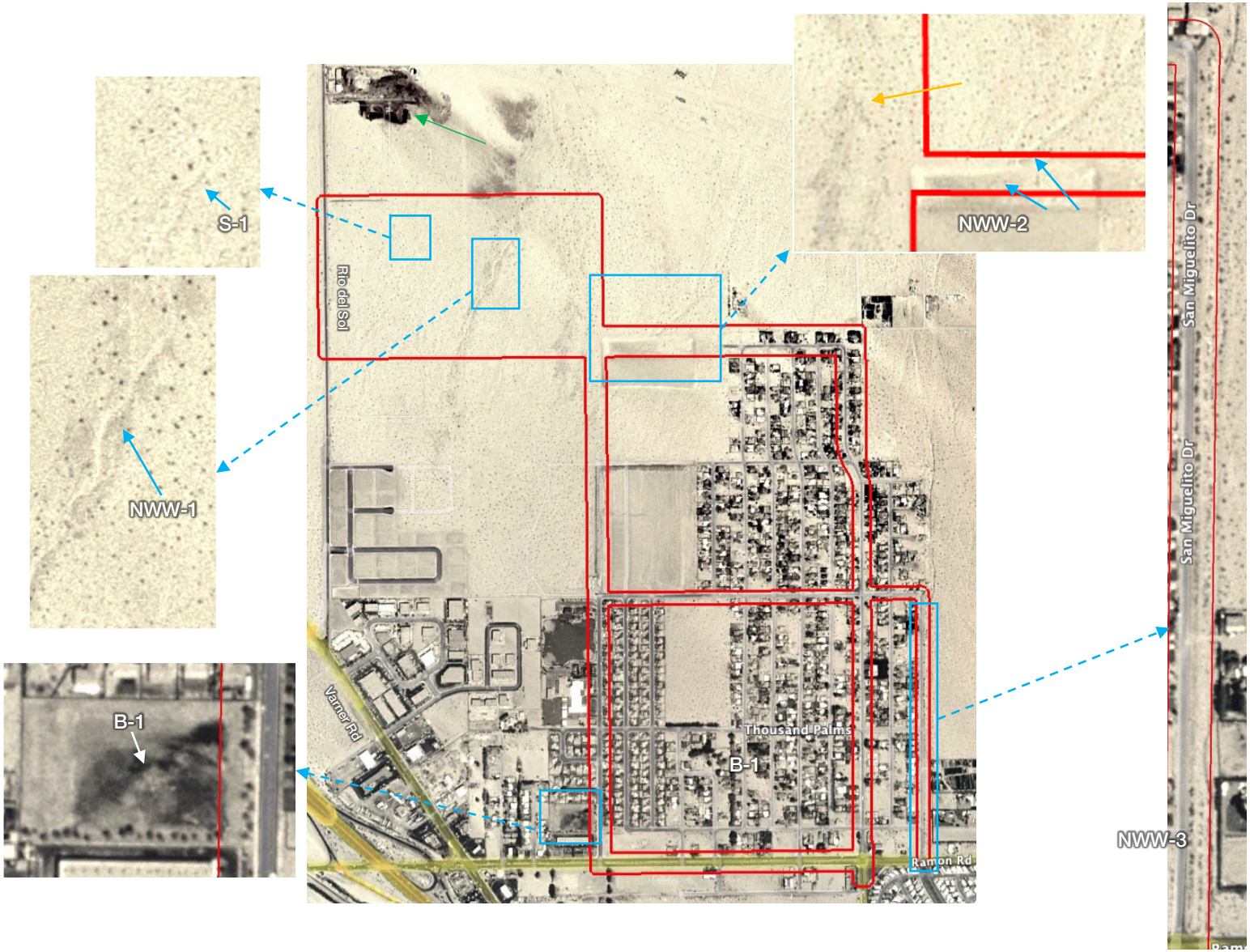
March 1978 – Between September 1953 and March 1978, Rio Del Sol and San Miguelito Drive were constructed in their present-day locations. NWW-1 is generally visible in its present-day location; however, NWW-1 appears to extend farther northeast and southwest in the 1978 aerial. NWW-2 is less pronounced than in the 1953 aerial, yet the northern portion is still visible in roughly its present-day location; however, the detention basin within NWW-2 is not present and thus, NWW-2 appears to continue off site then briefly reenter the review area before continuing off site. A feature is visible traveling through the present-day location of S-1. NWW-3 and B-1 are not visible in the March 1978 aerial. A linear feature is visible in the westernmost area mapped by the USGS NHD as "Stream/River" and by the USFWS NWI as "Riverine" (yellow arrow).



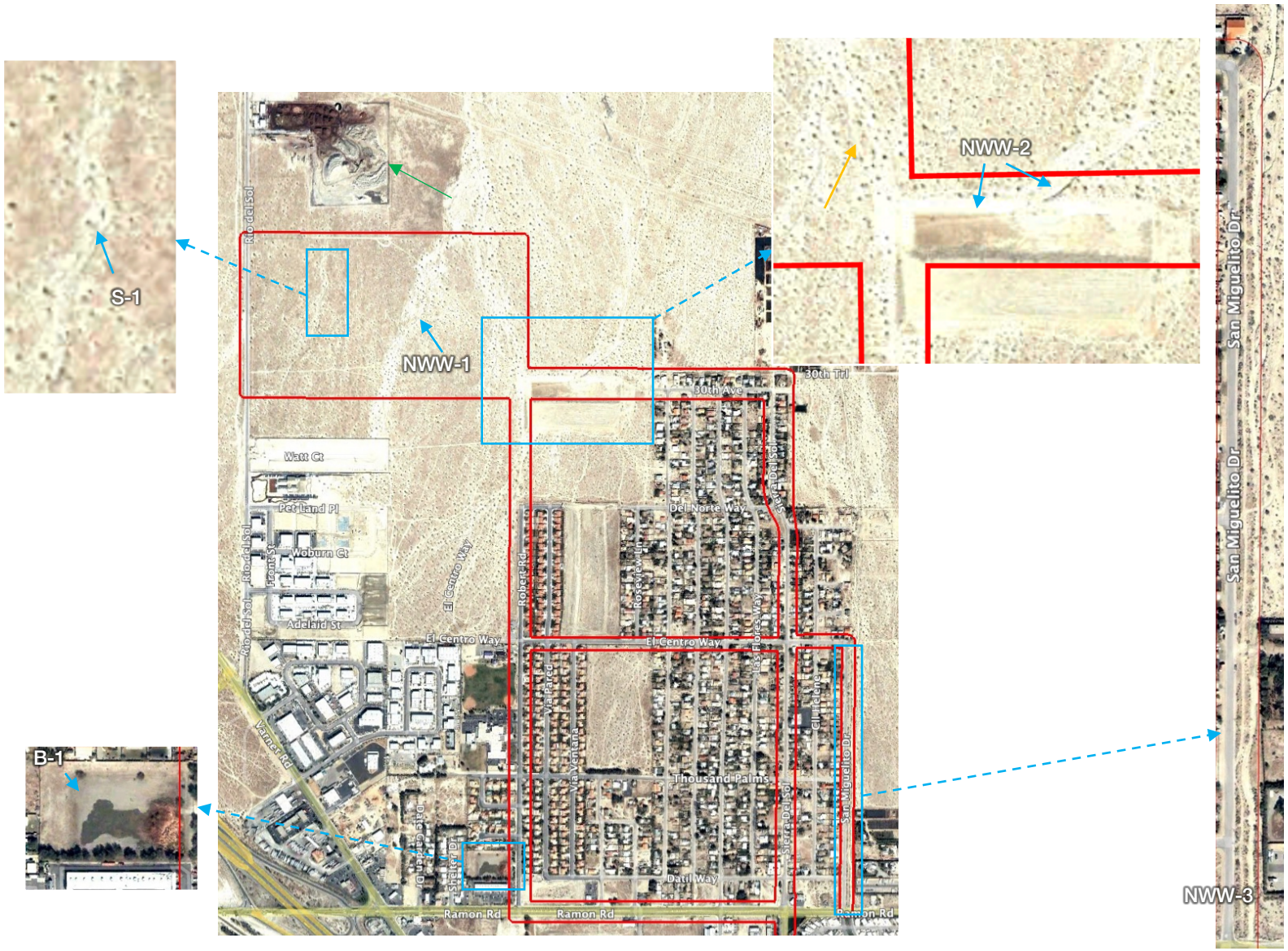
March 1991 – Between March 1978 and March 1991, additional residences have been constructed in the eastern portion of the review area. NWW-1 generally appears in its present-day location; however, NWW-1 appears to extend farther northeast and southwest in the March 1991 aerial. The northern portion of NWW-2 also generally appears in its approximate present-day location; however, NWW-2 appears to continue off site and the detention basin within NWW-2 is not present, and thus the flows from NWW-2 appear to continue off site. NWW-3 is now generally visible in its present-day location. S-1 is no longer visible and B-1 is not visible in the March 1991 aerial. A linear feature is visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (yellow arrow).



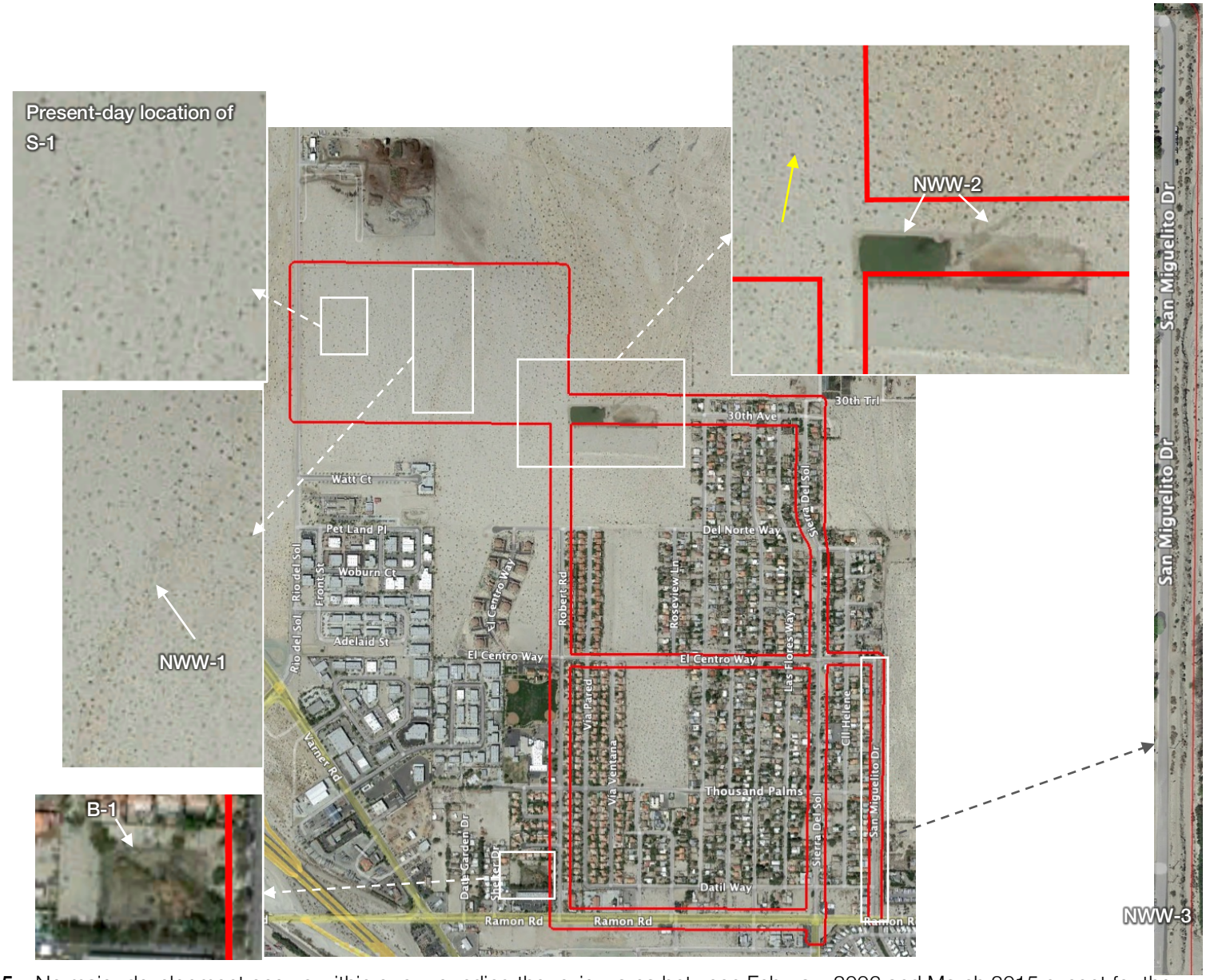
June 1996 – Between March 1991 and June 1996, development continues west of the review area with the establishment of a school and recreational area. NWW-1 and NWW-3 are visible in their approximate present-day locations. Between March 1991 and June 1996, the basin within NWW-2 has been installed and flows from NWW-2 no longer continue traveling southwest; B-1 has been constructed near the southwestern corner of the review area. S-1 is no longer visible in the June 1996 aerial. A linear feature is now only faintly visible in the westernmost area mapped by the USGS NHD as "Stream/River" and by the USFWS NWI as "Riverine" (yellow arrow).



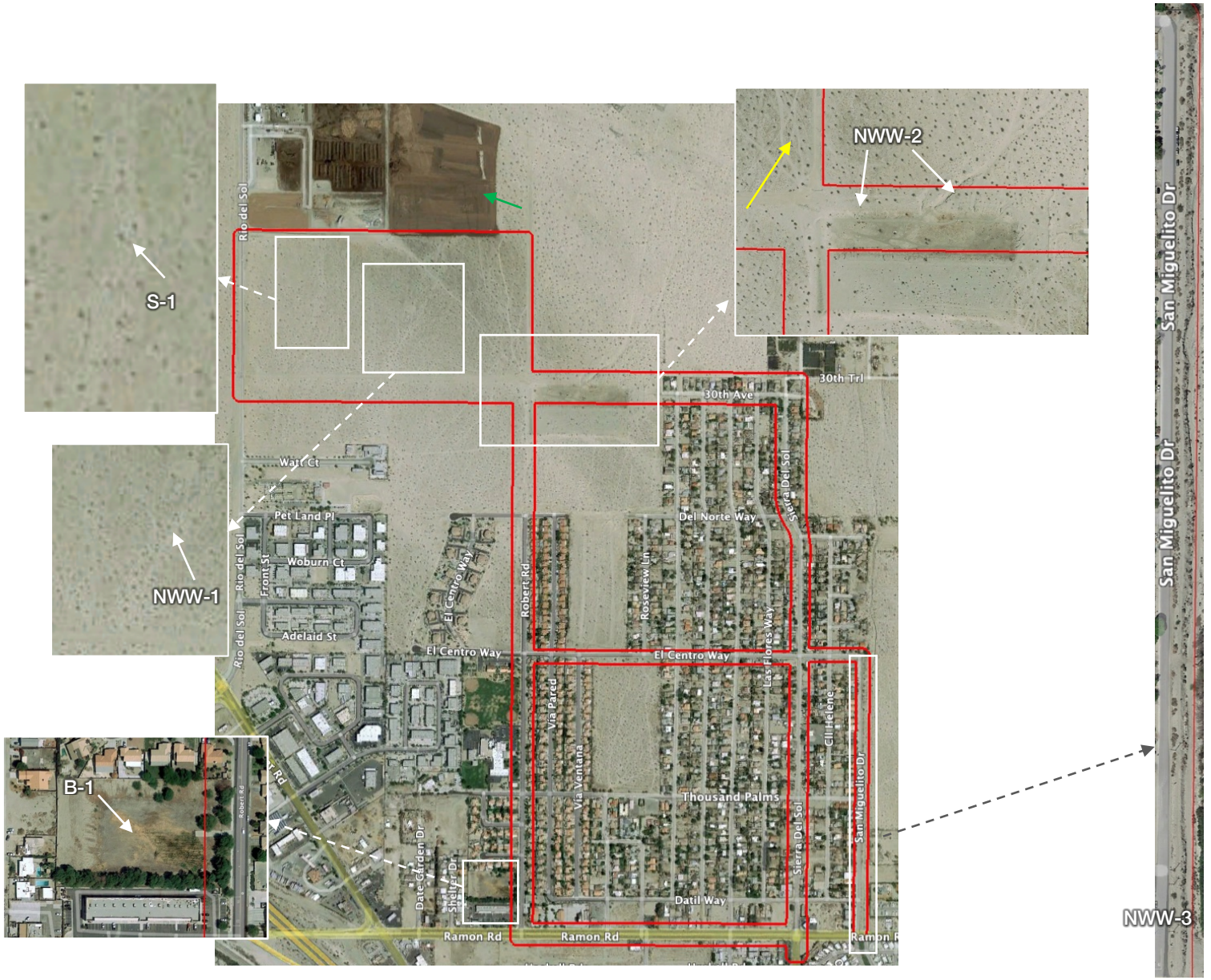
May 2002 – Between June 1996 and May 2002, a recycling facility (green arrow) was constructed north of the northwestern portion of the review area. NWW-1, NWW-2, NWW-3, S-1, and B-1 are visible in their present-day locations; however, NWW-1 appears to extend farther northeast and southwest. A linear feature is only faintly visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (orange arrow).



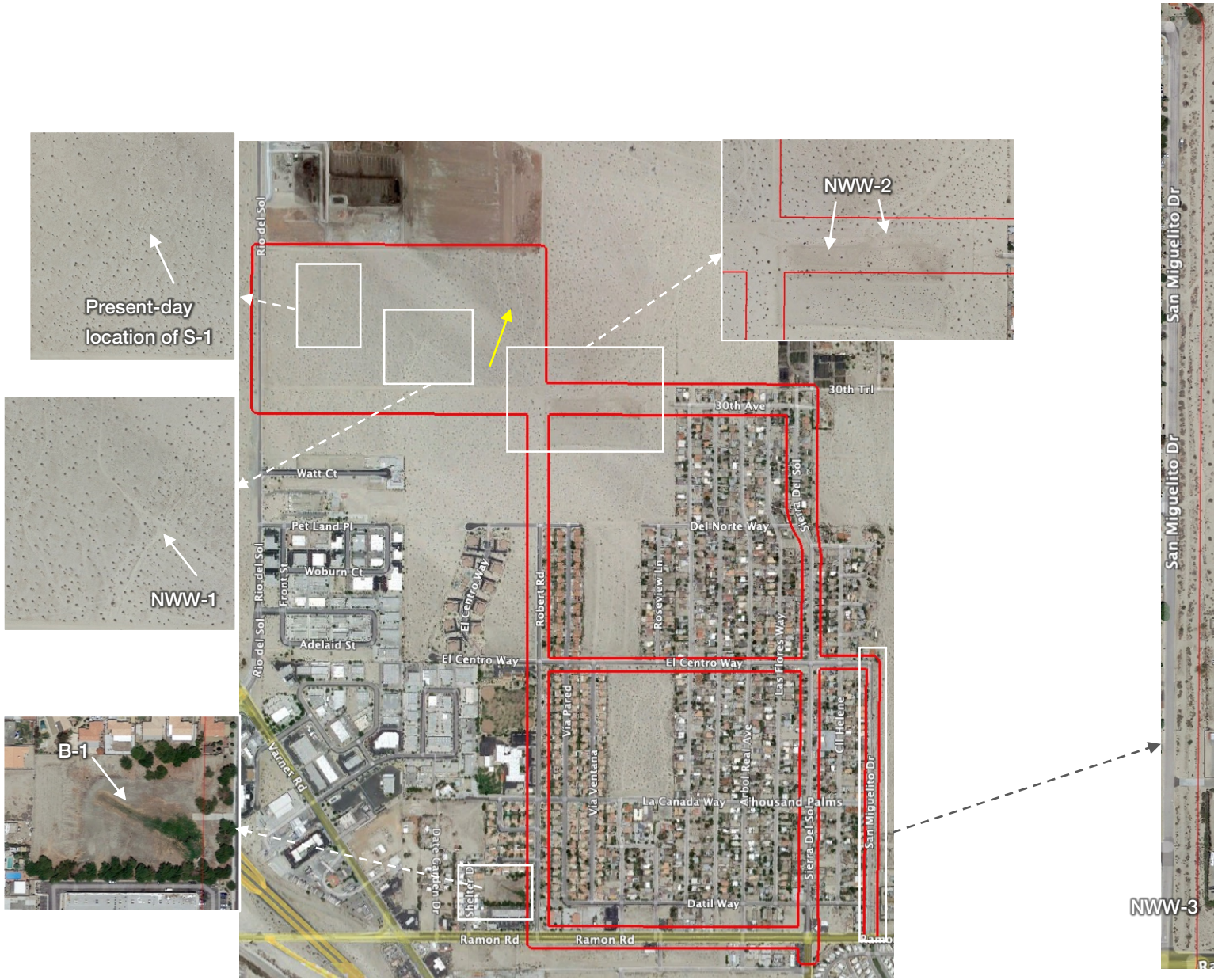
February 2006 – Residential and commercial development continues to expand within and surrounding the review area in the February 2006 aerial; the recycling facility (green arrow) north of the review area has expanded. NWW-1, NWW-2, NWW-3, S-1, and B-1 are visible in their approximate present-day locations; however, NWW-1 and S-1 appear to extend farther in the February 2006 aerial than their current expanses. A linear feature, with multiple small tributaries, is visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (orange arrow).



March 2015 – No major development occurs within or surrounding the review area between February 2006 and March 2015 except for the construction of a cannabis dispensary along Watt Court south of the northwestern portion of the review area. S-1 is no longer visible in the March 2015 aerial. NWW-1 is only slightly distinguishable in its present-day location. NWW-2, NWW-3, and B-1 are visible in their approximate present-day locations; water is present in the southern extent of NWW-2. A linear feature is no longer visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (yellow arrow).



August 2018 – Between March 2015 and August 2018, the area north of the review area and east of the recycling facility was graded (green arrow), affecting the hydrology on site. NWW-1, NWW-2, NWW-3, S-1, and B-1 are visible in their approximate present-day locations. A linear feature or dirt road is visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (yellow arrow).



June 2021 – Between August 2018 and June 2021, the land associated with the recycling plant north of the northwestern portion of the review area continued to be manipulated. NWW-1, NWW-2, NWW-3, and B-1 are visible in their approximate present-day locations. S-1 is not visible in the June 2021 aerial. A linear feature or road is visible in the westernmost area mapped by the USGS NHD as “Stream/River” and by the USFWS NWI as “Riverine” (yellow arrow).

APPENDIX D

ARID WEST WETLAND DETERMINATION DATA FORMS AND EPHEMERAL AND INTERMITTENT STREAMS OHWM DATASHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Majestic Thousand Palms City/County: Thousand Palms/Riverside County Sampling Date: 9/21/2022

Applicant/Owner: Majestic Realty Co. State: CA Sampling Point: WDP 1

Investigator(s): Kelsey Woldt, Alec Goodman Section, Township, Range: S7, T4S, R6E

Landform (hillslope, terrace, etc.): within drainage Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D - Interior Deserts Lat: 33.831475 Long: -116.401005 Datum: WGS 84

Soil Map Unit Name: Carsitas gravelly sand, 0 to 9 percent slopes (soil rated as hydric per the NRCS) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil ✔, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point taken within drainage that appears to be used as a road based on the presence of tire tracks. Soils considered significantly disturbed based on the presence of tire tracks. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 100% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Sample point taken in unvegetated area within area mapped as disturbed Sonoran creosote bush scrub.

SOIL

Sampling Point: WDP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10 YR 6/2	100%	N/A	N/A	N/A	N/A	Sand	No evidence of redox observed.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes _____ No ✔

Remarks:

Dry soils; soils moistened with spray bottle to record color. Could not dig deeper than 16 inches; sides of pit continue to collapse into hole at this depth. Uniform soils throughout. No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): N/A

Water Table Present? Yes _____ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

Plant matter concentrated near the base of plants of the same species (i.e., did not appear to be water-deposited drift deposits). No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Majestic Thousand Palms City/County: Thousand Palms/Riverside County Sampling Date: 05/25/2022

Applicant/Owner: Majestic Realty Co. State: CA Sampling Point: WDP 2

Investigator(s): Kelsey Woldt, Ryan Layden Section, Township, Range: S18, T4S, R6E

Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR): LRR D - Interior Deserts Lat: 33.830658 Long: -116.395373 Datum: WGS 84

Soil Map Unit Name: Carsitas cobbly sand, 2 to 9 percent slopes (soil rated as hydric per the NRCS) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ✔, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks:

Sample point taken within basin in area mapped as hydric soils per the NRCS. Soils considered significantly disturbed based on presence of tire tracks throughout the area. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	N/A = Total Cover		
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Tamarix ramosissima	8%	Yes	FAC
2. Atriplex canescens	5%	Yes	NL/UPL
3.			
4.			
5.			
	13% = Total Cover		
Herb Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	N/A = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	N/A = Total Cover		

% Bare Ground in Herb Stratum 87% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks:

Sample point taken within area mapped as disturbed Sonoran creosote bush scrub. 15-foot radius for sapling/shrub stratum used to adequately represent the vegetation within the area. Tamarix ramosissima is synonomous with Tamarix chinensis (FAC) per the NWPL. Hydric soil and wetland hydrology parameters not met; thus, prevalence index worksheet not required/needed.

SOIL

Sampling Point: WDP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	2.5 YR 5/3	100%	N/A	N/A	N/A	N/A	Sand	No evidence of redox observed.
2-8	2.5 YR 5/3	98%	10 YR 5/6	2%	C	M	Sand	Prominent redox concentrations observed as soft masses

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: shovel refusal - likely compacted soils

Depth (inches): @ 8 inches

Hydric Soil Present? Yes ___ No ✔

Remarks:

Dry soils; soils moistened with spray bottle to record color. Prominent redox concentrations (2%) occur as soft masses within soil matrix from 2 to 8 inches; however, no hydric soil indicators met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✔ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): N/A

Water Table Present? Yes ___ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

FAC-Neutral test not met. Surface soil cracks present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Majestic Thousand Palms City/County: Thousand Palms/Riverside County Sampling Date: 9/21/2022

Applicant/Owner: Majestic Realty Co. State: CA Sampling Point: WDP 3

Investigator(s): Kelsey Woldt, Alec Goodman Section, Township, Range: S17, T4S, R6E

Landform (hillslope, terrace, etc.): within drainage Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D - Interior Deserts Lat: 33.819573 Long: -116.385992 Datum: WGS 84

Soil Map Unit Name: Carsitas cobbly sand, 2 to 9 percent slopes (soil rated as hydric per the NRCS) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

Sample point taken within roadside drainage east of San Miguelito Road. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 100% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Sample point taken in unvegetated area within area mapped as disturbed desert saltbush scrub.

SOIL

Sampling Point: WDP 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 6/2	100%	N/A	N/A	N/A	N/A	Loamy sand	No evidence of redox observed.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: shovel refusal - likely compacted soils

Depth (inches): @ 7 inches

Hydric Soil Present? Yes ___ No ✔

Remarks:

Dry soils; soils moistened with spray bottle to record color. Uniform soils throughout. No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✔ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✔ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): N/A

Water Table Present? Yes ___ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

Drift deposits present as trash, dead plant matter, and rocks. Surface soil cracks observed throughout sampling area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Majestic Thousand Palms City/County: Thousand Palms/Riverside County Sampling Date: 9/21/2022

Applicant/Owner: Majestic Realty Co. State: CA Sampling Point: WDP 4

Investigator(s): Kelsey Woldt, Alec Goodman Section, Township, Range: S12, T4S, R5E

Landform (hillslope, terrace, etc.): flat uplands Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion (LRR): LRR D - Interior Deserts Lat: 33.832185 Long: -116.405607 Datum: WGS 84

Soil Map Unit Name: Myoma fine sand 0 to 5 percent slopes (Soil rated as hydric per the NCRS) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks:

Sample point taken within area mapped as hydric soils per the NRCS, which is located east of Rio Del Sol. Drought conditions per APT (i.e., atypical hydrologic conditions/naturally problematic).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15-foot radius)			
1. Larrea tridentata	5%	Yes	NL/UPL
2.			
3.			
4.			
5.			
	5% = Total Cover		
Herb Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	N/A = Total Cover		
Woody Vine Stratum (Plot size: N/A)			
1.			
2.			
	N/A = Total Cover		

% Bare Ground in Herb Stratum 95% % Cover of Biotic Crust 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks:

Sample point taken within area mapped as disturbed Sonoran creosote bush scrub. Hydric soil and wetland hydrology parameters not met; thus, prevalence index worksheet not required/needed.

SOIL

Sampling Point: WDP 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10 YR 6/2	100%	N/A	N/A	N/A	N/A	Sand	No evidence of redox observed.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ____ No ✔

Remarks:

Dry soils; soils moistened with spray bottle to record color. Could not dig deeper than 15 inches; sides of pit continue to collapse into hole at this depth. Uniform soils throughout. No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): N/A

Water Table Present? Yes ____ No ✔ Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): N/A

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

Plant matter appeared to be wind-deposited rather than water-deposited drift deposits since the plant matter was not widely distributed, was not collected around the base of vegetation/fixed objects, and did not appear associated with recent flows. FAC-Neutral test not met. No wetland hydrology indicators observed.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Majestic Thousand Palms
Project Number: N/A
Stream: ODP 1
Investigator(s): Kelsey Woldt, Ryan Layden

Date: 05/25/2022 **Time:** 0840
Town: Thousand Palms **State:** CA
Photo begin file#: 1 **Photo end file#:** 2

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details:
Majestic Thousand Palms Aquatic Resources Delineation Report Review Area

Projection: NAD 83 **Datum:** WGS 84
Coordinates: 33.832029, -116.400584

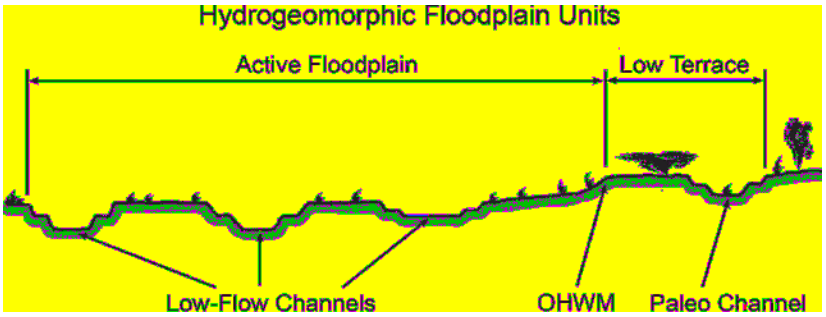
Potential anthropogenic influences on the channel system:
Area is generally undeveloped; development/recycling facility present off site to the north. Trash/debris present.

Brief site description:
Dry wash within undeveloped site generally composed of disturbed Sonoran creosote bush scrub.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

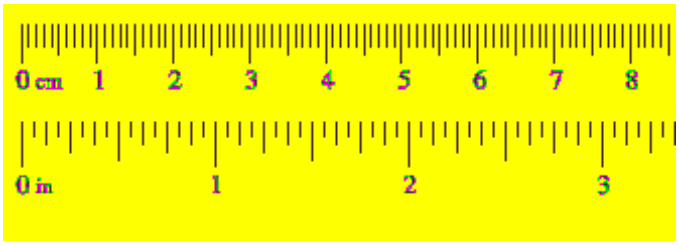


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

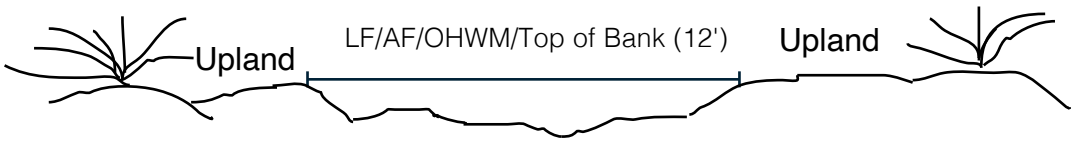
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Project ID: Majestic Thousand Palms **Cross section ID:** ODP 1 **Date:** 05/25/2022 **Time:** 0840

Cross section drawing:



Facing north (upstream)

OHWM

GPS point: 33.832029, -116.400584

Indicators:

- ☑ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 12-foot wide OHWM defined by a slight break in bank slope, change in average sediment texture, and change in vegetation cover. Data was collected during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on site conditions/topography.

Floodplain unit:

☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow channel (LF) is indistinguishable/cannot be determined from active floodplain (AF).

Project ID: Majestic Thousand Palms **Cross section ID:** ODP 1 **Date:** 05/25/2022 **Time:** 0840

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium sand

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- ☑ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☑ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 12-foot wide AF with a slight break in bank slope. Medium sand sediment texture with some granules throughout. Drift and/or debris present as trash.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Very coarse sand

Total veg cover: 10 % Tree: 0 % Shrub: 10 % Herb: 0 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace present; continues from AF to upland. Very coarse sand sediment texture with some pebbles throughout. Very fine, wind-deposited sand at base of plants. Vegetation dominated by white bursage (Ambrosia dumosa) and creosote bush (Larrea tridentata).

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Majestic Thousand Palms
Project Number: N/A
Stream: ODP 2
Investigator(s): Kelsey Woldt, Ryan Layden

Date: 05/25/2022 **Time:** 1000
Town: Thousand Palms **State:** CA
Photo begin file#: 4 **Photo end file#:** 5

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Majestic Thousand Palms Aquatic Resources Delineation Report Review Area

Projection: NAD 83 **Datum:** WGS 84
Coordinates: 33.830992, -116.394734

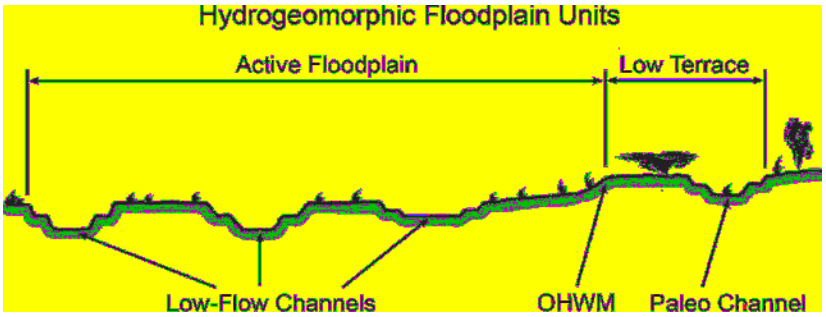
Potential anthropogenic influences on the channel system:
Area is generally undeveloped. Trash/debris present; evidence of off-roading use based on the presence of tire tracks.

Brief site description:
Dry wash that transitions into a detention basin within undeveloped site generally composed of disturbed Sonoran creosote bush scrub.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

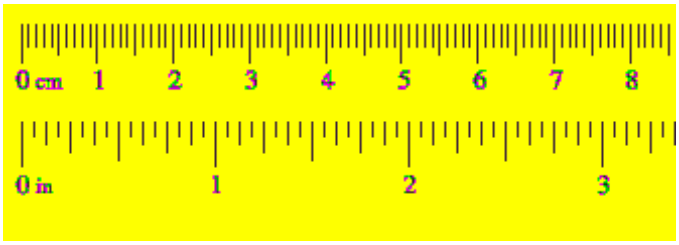


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

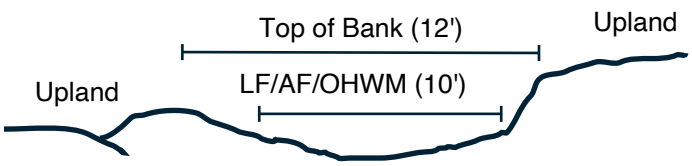
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Project ID: Majestic Thousand Palms **Cross section ID:** ODP 2 **Date:** 05/25/2022 **Time:** 1000

Cross section drawing:



Facing east (upstream)

OHWM

GPS point: 33.830992, -116.394734

Indicators:

- ☑ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 10-foot wide OHWM defined by a break in slope, change in vegetation cover, and change in average sediment texture. Data was collected during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on site conditions/topography.

Floodplain unit:

☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow channel (LF) is indistinguishable/cannot be determined from active floodplain (AF).

Project ID: Majestic Thousand Palms **Cross section ID:** ODP 2 **Date:** 05/25/2022 **Time:** 1000

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: Same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Coarse sand

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- ☑ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☑ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 10-foot wide AF defined by a gradual break in bank slope; wind-deposited sand within channel. Coarse sand sediment texture throughout. Drift and/or debris present as trash.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Pebble

Total veg cover: 10 % Tree: 0 % Shrub: 10 % Herb: 0 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace present; continues from AF to upland. Soil development present on southeast bank; northwest bank is composed of dunes. Vegetation dominated by creosote bush (Larrea tridentata) and four-winged salt bush (Atriplex canescens). Pebble sediment texture throughout.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Majestic Thousand Palms
Project Number: N/A
Stream: ODP 3
Investigator(s): Kelsey Woldt

Date: 05/25/2022 **Time:** 1030
Town: Thousand Palms **State:** CA
Photo begin file#: 10 **Photo end file#:** 10

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Majestic Thousand Palms Aquatic Resources Delineation Report Review Area

Projection: NAD 83 **Datum:** WGS 84
Coordinates: 33.833567, -116.403297

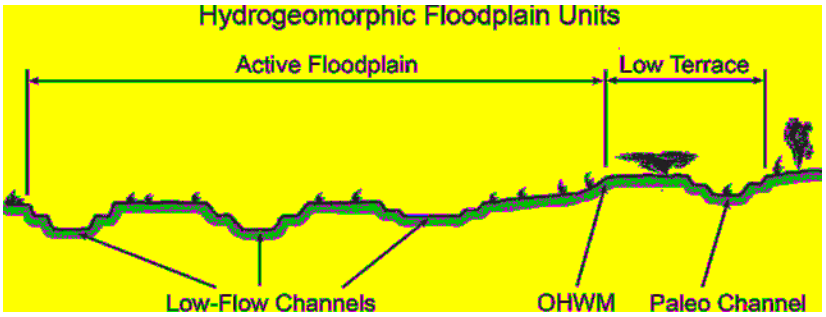
Potential anthropogenic influences on the channel system:
Area is generally undeveloped; development/recycling facility present off site to the north.

Brief site description:
Undeveloped site; swale-like feature within area of disturbed Sonoran creosote bush scrub.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

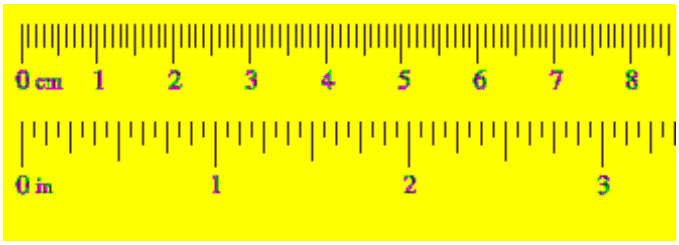


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

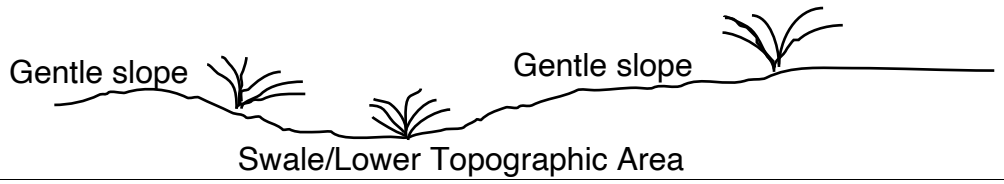
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Project ID: Majestic Thousand Palms **Cross section ID:** ODP 3 **Date:** 05/25/2022 **Time:** 1030

Cross section drawing:



OHWM

GPS point: 33.833567, -116.403297

Indicators:

- ☑ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Lower topographic feature (i.e., swale-like feature) that does not appear to sustain sufficient drainage flows to create the presence of a bed and bank and/or break in bank slope. Vegetation cover/species did not differ from lower topographic area to adjacent slopes (both sparsely vegetated and dominated by Atriplex canescens and Larrea tridentata). A change in sediment texture from medium sand to very coarse sand was observed between the lower topographic area and adjacent slopes; however, no other OHWM indicators were present.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Project ID: Majestic Thousand Palms **Cross section ID:** ODP 3 **Date:** 05/25/2022 **Time:** 1030

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Majestic Thousand Palms
Project Number: N/A
Stream: ODP 4
Investigator(s): Kelsey Woldt, Alec Goodman

Date: 09/21/2022 **Time:** 1045
Town: Thousand Palms **State:** CA
Photo begin file#: 13 **Photo end file#:** 14

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Majestic Thousand Palms Aquatic Resources Delineation Report Review Area

Projection: NAD 83 **Datum:** WGS 84
Coordinates: 33.818171, -116.386019

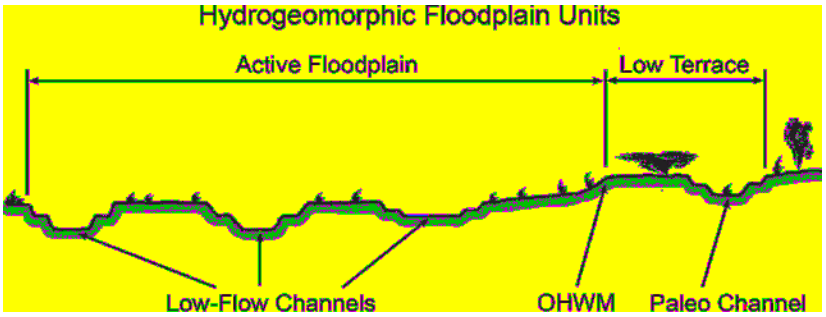
Potential anthropogenic influences on the channel system:

Brief site description:
Dry wash east of San Miguelito Road generally composed of disturbed desert saltbush scrub.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

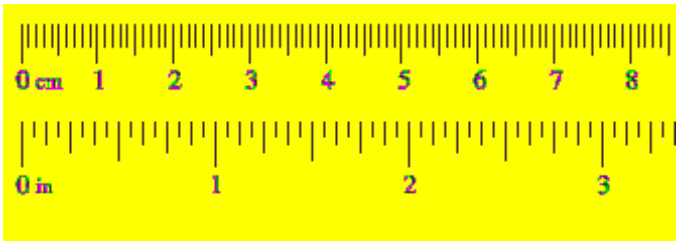


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

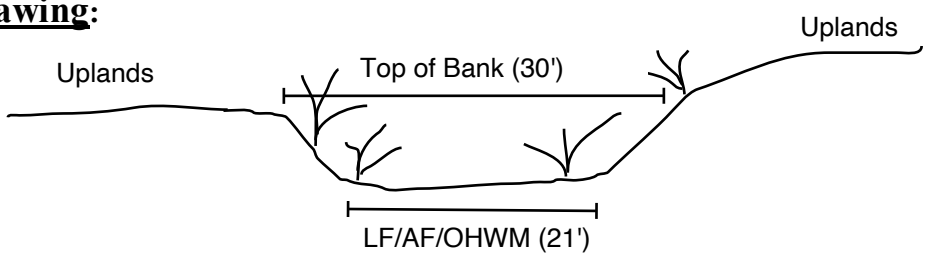
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Project ID: Majestic Thousand Palms **Cross section ID:** ODP 4 **Date:** 09/21/2022 **Time:** 1045

Cross section drawing:



OHWM

GPS point: 33.818171, -116.386019

Indicators:

- ☑ Change in average sediment texture
- ☑ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 21-foot wide OHWM defined by a break in bank slope, change in vegetation species, change in vegetation cover, and change in average sediment texture. Data was collected during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on site conditions/topography.

Floodplain unit: ☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow channel (LF) is indistinguishable/cannot be determined from active floodplain (AF).

Project ID: Majestic Thousand Palms **Cross section ID:** ODP 4 **Date:** 09/21/2022 **Time:** 1045

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Very coarse sand with pebbles

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☑ Mudcracks
- ☑ Ripples
- ☑ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 21-foot wide AF. Very coarse sand sediment texture with some pebbles throughout; cobble also present though very minimal. Vegetation dominated by Tidestromia suffruticosa, Atriplex polycarpa, and Atriplex canescens. Drift and debris present as trash and dead plant matter.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Fine silt with pebbles

Total veg cover: 12 % Tree: 5 % Shrub: 5 % Herb: 2 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☑ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

No true low terrace present; continues from AF to upland. Uplands defined by soil development and surface relief. Fine silt sediment texture with some pebbles throughout; cobble and boulders also present though very minimal. Vegetation dominated by Prosopis sp., Larrea tridentata, Brassica tournefortii, Atriplex polycarpa, and Atriplex canescens.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Majestic Thousand Palms
Project Number: N/A
Stream: ODP 5
Investigator(s): Kelsey Woldt, Alec Goodman

Date: 09/21/2022 **Time:** 1330
Town: Thousand Palms **State:** CA
Photo begin file#: 6 **Photo end file#:** 7

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Majestic Thousand Palms Aquatic Resources Delineation Report Review Area

Projection: NAD 83 **Datum:** WGS 84
Coordinates: 33.830551, -116.396359

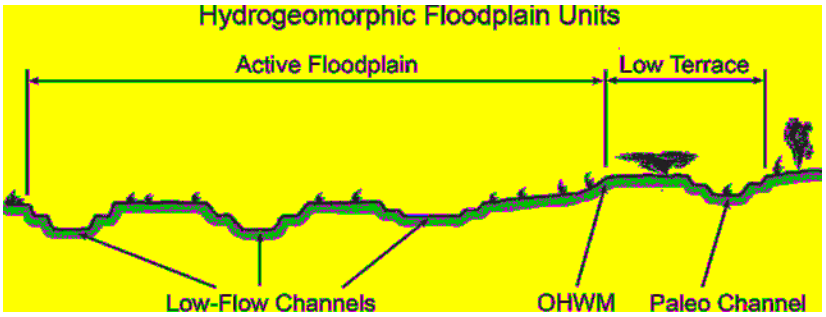
Potential anthropogenic influences on the channel system:

Brief site description:
Basin at southern extent of dry wash within undeveloped site generally composed of disturbed Sonoran creosote bush scrub.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

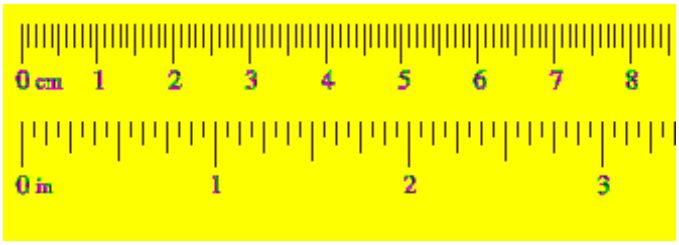


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☑ Mapping on aerial photograph
   - ☑ Digitized on computer
   - ☑ GPS
   - ☐ Other:

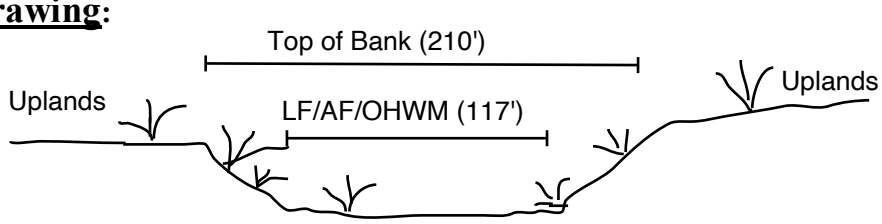
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Project ID: Majestic Thousand Palms **Cross section ID:** ODP 5 **Date:** 09/21/2022 **Time:** 1330

Cross section drawing:



Facing east (upstream)

OHWM

GPS point: 33.830551, -116.396359

Indicators:

- ☑ Change in average sediment texture
- ☑ Change in vegetation species
- ☑ Change in vegetation cover
- ☑ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 117-foot wide OHWM defined by a break in bank slope, change in vegetation cover, change in vegetation species, and change in average sediment texture. Data was collected during a drought year; however, indicators still observed and consistent with anticipated extent of OHWM based on site conditions/topography.

Floodplain unit: ☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace/Upland

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Low-flow channel (LF) is indistinguishable/cannot be determined from active floodplain (AF).

Project ID: Majestic Thousand Palms **Cross section ID:** ODP 5 **Date:** 09/21/2022 **Time:** 1330

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace/Upland

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____ % Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☑ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☑ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Approximately 117-foot wide AF with a break in bank slope. Fine silt sediment texture throughout. Mudcracks prevalent throughout sample area. Large items of trash (e.g., car frame) have been dumped into basin/not transported by flow. Vegetation dominated by Atriplex canescens.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☑ Low Terrace/Upland

GPS point: Just above AF/OHWM

Characteristics of the floodplain unit:

Average sediment texture: Medium sand

Total veg cover: 10 % Tree: 2 % Shrub: 8 % Herb: 0 %

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☑ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☑ Soil development
- ☑ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

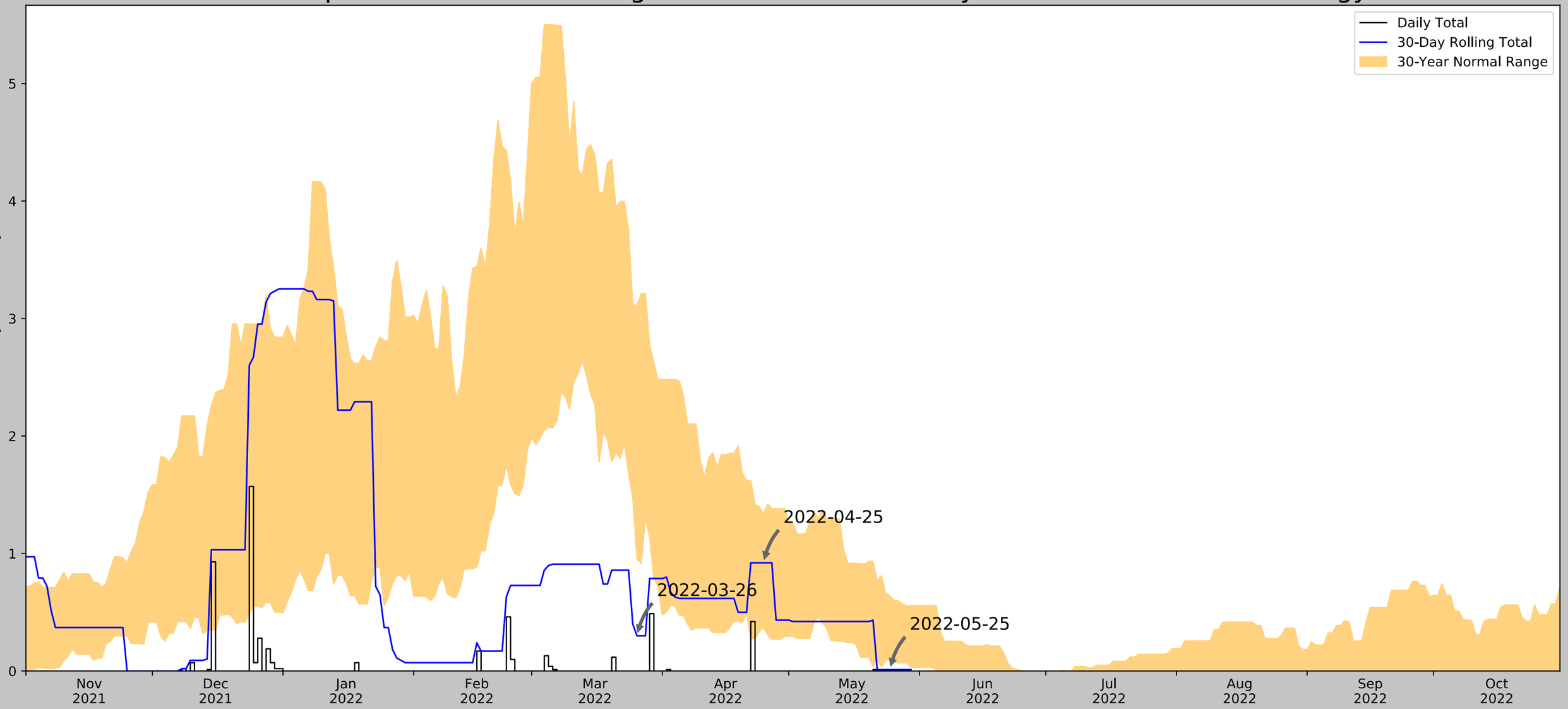
Comments:

No true low terrace present; continues from AF to upland. Uplands defined by soil development and surface relief. Medium sand sediment texture throughout. Vegetation dominated by Tamarix sp., Atriplex canescens, and Larrea tridentata.

APPENDIX E

ANTECEDENT PRECIPITATION TOOL OUTPUT

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.830275, -116.406042
Observation Date	2022-05-25
Elevation (ft)	299.69
Drought Index (PDSI)	Extreme drought (2022-04)
WebWIMP H_2O Balance	Dry Season

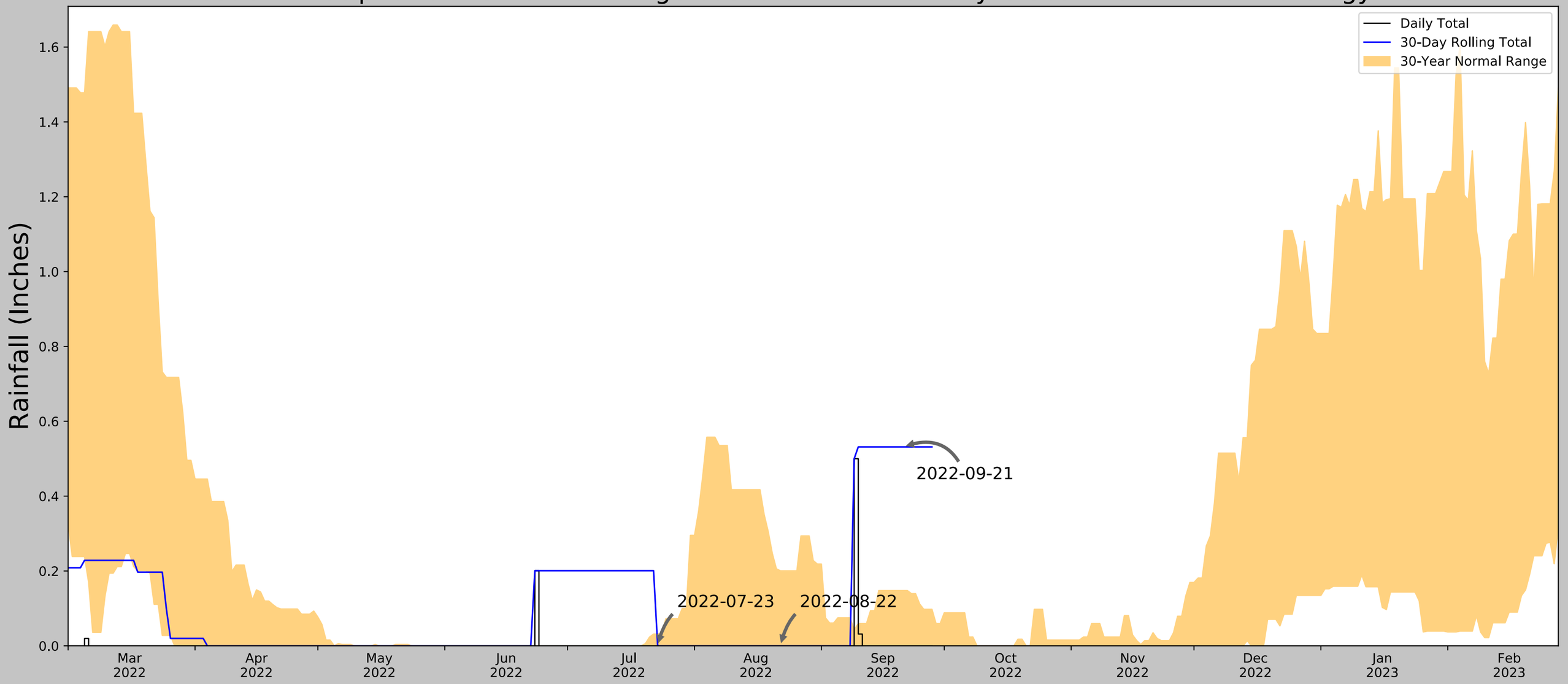
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-05-25	0.104331	0.638976	0.011811	Dry	1	3	3
2022-04-25	0.374409	1.337402	0.92126	Normal	2	2	4
2022-03-26	0.95315	3.11378	0.299213	Dry	1	1	1
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
IDYLLWILD 1.8 NW	33.7631, -116.735	6325.131	19.45	6025.441	125.947	3266	0
HEMET 4.1 ENE	33.7527, -116.9196	1698.163	29.972	1398.473	55.402	1470	90
HEMET	33.7381, -116.8939	1811.024	28.731	1511.334	56.351	6548	0
IDYLLWILD FIRE DEPT	33.7572, -116.7067	5379.921	17.987	5080.231	99.472	69	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.830275, -116.406042
Observation Date	2022-09-21
Elevation (ft)	299.69
Drought Index (PDSI)	Severe drought (2022-08)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-09-21	0.0	0.147638	0.531496	Wet	3	3	9
2022-08-22	0.0	0.200394	0.0	Normal	2	2	4
2022-07-23	0.0	0.031496	0.0	Normal	2	1	2
Result							Wetter than Normal - 15

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PALM SPRINGS	33.8275, -116.5097	424.869	5.953	125.179	3.424	10839	69
PALM SPRINGS RGNL AP	33.8281, -116.5053	420.932	0.256	3.937	0.116	474	21
THOUSAND PALMS 0.7 W	33.8212, -116.3978	253.937	6.438	170.932	3.998	1	0
INDIO FIRE STN	33.7086, -116.2153	-20.997	18.799	445.866	16.841	31	0
DEEP CANYON LAB	33.6514, -116.3764	1200.131	14.377	775.262	17.616	8	0

APPENDIX F

SITE PHOTOGRAPHS

Appendix F. Site Photographs[1]
Majestic Thousand Palms Aquatic Resources Delineation – May 25, 2022 and September 21, 2022

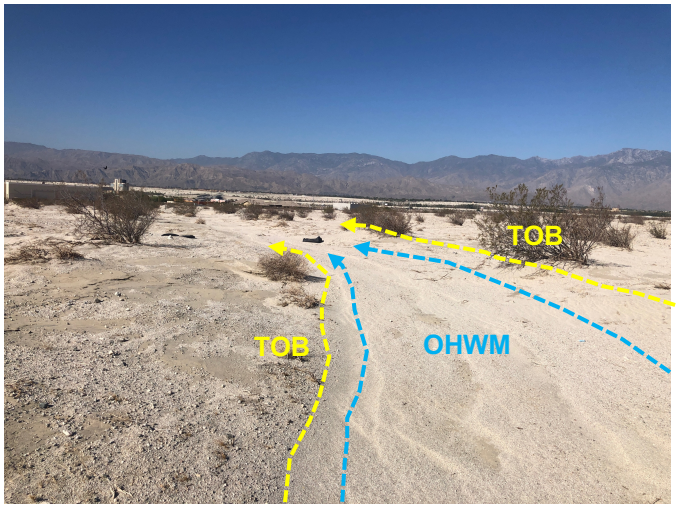


Photo 1. Downstream view of Ordinary High Water Mark (OHWM) Data Point (ODP) 1, facing southwest, within Non-Wetland Water (NWW-) 1 in disturbed Sonoran creosote bush scrub. ODP 1 exhibited a break in bank slope, change in average sediment texture, and change in vegetation cover (33.831872, -116.400739). May 25, 2022

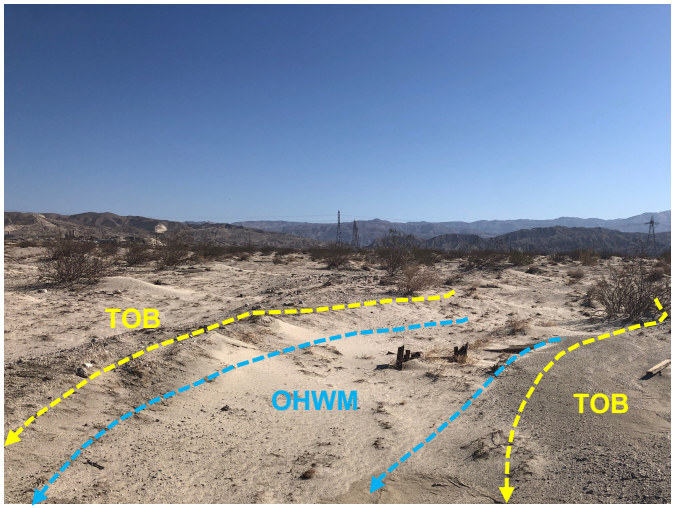


Photo 2. Upstream view of ODP 1, facing north, within NWW-1 (33.832169, -116.400572). May 25, 2022

Photo 3. View of Wetland Data Form Point (WDP) 1, facing north, within NWW-1 in disturbed Sonoran creosote bush scrub. WDP 1 did not meet the wetland hydrology, hydrophytic vegetation, or hydric soil parameters (33.831460, -116.401022). September 21, 2022.

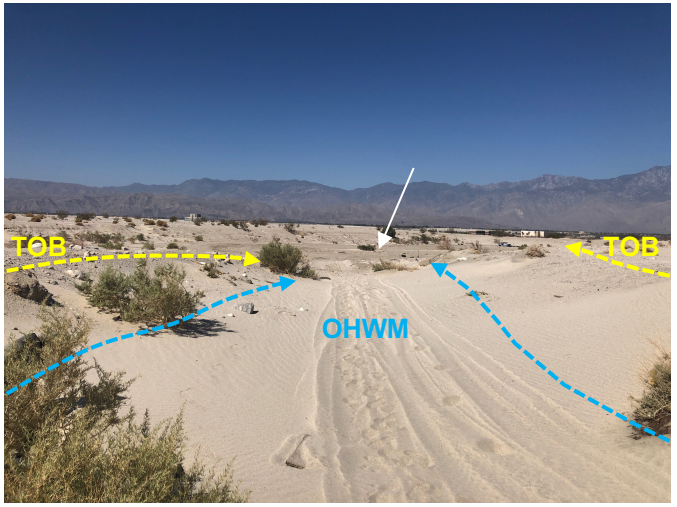


Photo 4. Downstream view of ODP 2, facing southwest, within NWW-2 in disturbed Sonoran creosote bush scrub. NWW-2 transitions to a detention basin (white arrow) at its downstream extent. ODP 2 exhibited a break in bank slope, change in average sediment texture, and change in vegetation cover (33.830948, -116.394751). May 25, 2022

[1] See corresponding Figure 5 series for photo point locations. See Aquatic Resources Delineation Report Sections 6 through 8 for a discussion of each feature.

Photo 5. Upstream view of ODP 2, facing northeast, within NWW-2 (33.830868, -116.394854). May 25, 2022

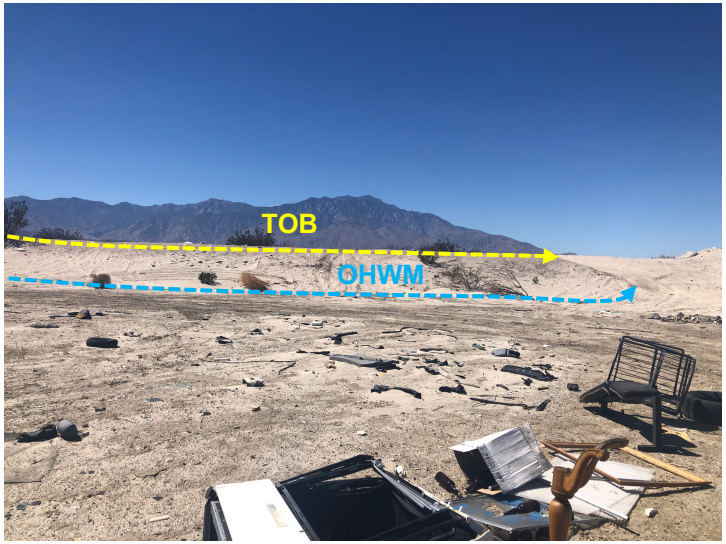


Photo 6. View of ODP 5 within NWW-2, within the detention basin, facing west. ODP 5 exhibited a break in bank slope, change in average sediment texture, change in vegetation species, and change in vegetation cover (33.830557, -116.396274). September 21, 2022.

Photo 7. View of ODP 5, facing east, within NWW-2 (33.830571, -116.396271). September 21, 2022.

Photo 8. View of WDP 2, facing west, within NWW-2 after the feature transitions to a detention basin. WDP 2 met the wetland hydrology parameter; however, WDP 2 did not meet the hydrophytic vegetation or hydric soil parameters (33.830669, -116.395343). May 25, 2022

Photo 9. View of westernmost area where U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps a “Riverine” feature and the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) maps a “Stream/River” feature, facing south, within disturbed Sonoran creosote bush scrub. The area is currently used as a road; no OHWM indicators were observed (33.833992, -116.397776). May 25, 2022

Photo 10. View of ODP 3 within Swale (S-) 1, facing south, within disturbed Sonoran creosote bush scrub. S-1 did not exhibit any bed and bank indicators, there was no change in sediment texture or break in slope, and vegetation did not differ between the swale and the adjacent upland area (33.833575, -116.403317). May 25, 2022

Photo 11. View of NWW-3, facing south, within disturbed desert saltbush scrub (33.821389-116.386061). September 21, 2022.

Photo 12. View of WDP 3, facing northwest, within NWW-3, within disturbed desert saltbush scrub. WDP 3 met the wetland hydrology parameter; however, WDP 3 did not meet the hydrophytic vegetation or hydric soil parameters (33.819578, -116.385974). September 21, 2022.

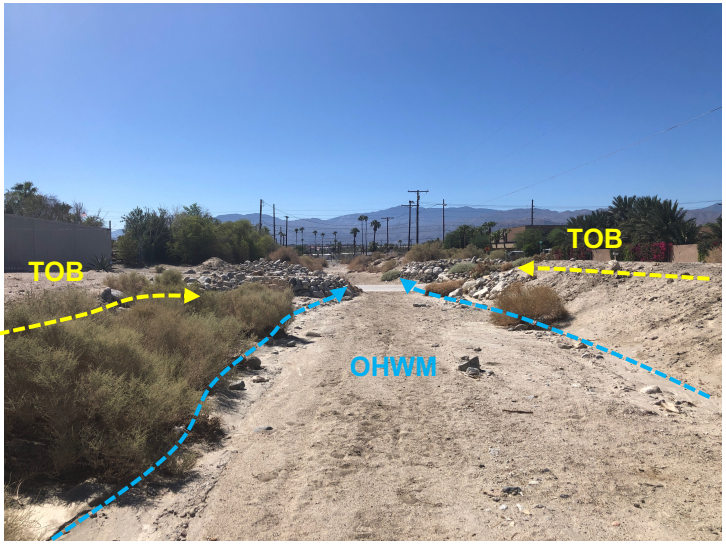


Photo 13. Downstream view of ODP 4 within NWW-3, facing south, within disturbed desert saltbush scrub. ODP 4 exhibited a break in bank slope, change in average sediment texture, change in vegetation species, and change in vegetation cover (33.818154, -116.386089). September 21, 2022.

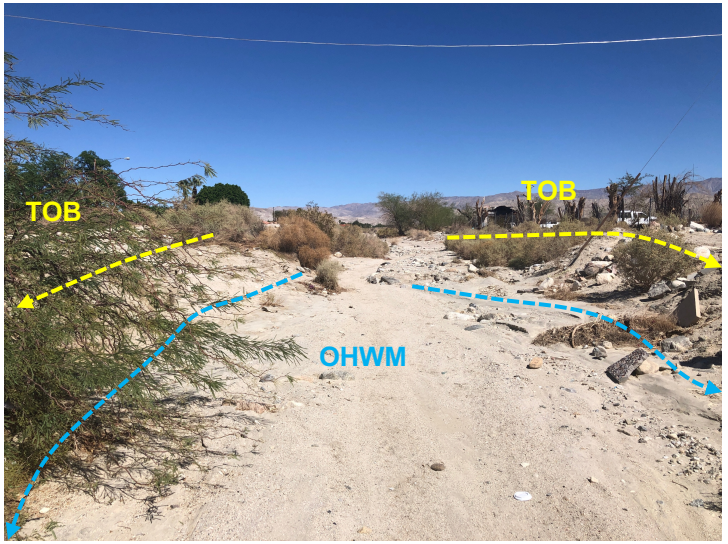


Photo 14. Upstream view of ODP 4, facing north, within NWW-3 (33.818117, -116.386061). September 21, 2022.

Photo 15. Downstream extent of NWW-3, facing south, where it dissipates at Ramon Road (33.816621, -116.386044). September 21, 2022.

Photo 16. View of artificially constructed and maintained detention basin (B-)1 that generally occurs outside of the review area, facing west, within a developed area (33.817503, -116.397087). May 25, 2022

Photo 17. View of area mapped as Myoma fine sands, 5 to 15 percent slopes (soil rated as hydric per the NRCS), facing east, within the southwestern portion of the review area. Area is a developed, private property; therefore, a wetland sampling point was not taken (33.819544, -116.396834). September 21, 2022.

Photo 18. View of WDP 4, facing north, within disturbed Sonoran creosote bush scrub. WDP 4 did not meet the wetland hydrology, hydrophytic vegetation, or hydric soil parameters (33.832213, -116.405639). September 21, 2022.

APPENDIX G

LITERATURE CITATIONS AND REFERENCES

APPENDIX G. LITERATURE CITATIONS AND REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, & T. J. Rosatti (2012). The Jepson manual: Vascular plants of California: thoroughly revised and expanded (2nd Ed.). University of California Press, Berkeley, California.

California Fish and Game Commission (CFGC). (1994). *Miscellaneous policies: Fish and Game Commission comment to the Department of Fish and Game on the wetland policy implementation proposal.* California Fish and Game Commission (CFGC). Retrieved June 2019, from https://fgc.ca.gov/About/Policies/Miscellaneous#Wetlands

California State Water Resources Control Board (SWRCB). (2021). *State policy for water quality control: state wetland definition and procedures for discharges of dredged or fill material to waters of the state.* State Water Resources Control Board. Retrieved April 2021, from https://www.waterboards.ca.gov/water_issues/programs/cwa401/

Coachella Valley Association of Governments (CVAG). (2007). *Coachella Valley Multiple Species Habitat Conservation Plan.* Retrieved September 2022, from https://cvmshcp.org/plan-documents/

Colorado River Basin Regional Water Quality Control Board (CRBRWQCB). (2019). *Water Quality Control Plan for the Colorado River Basin Region, Appendix A, Map A.* Retrieved May 2022. Colorado River Basin Regional Water Quality Control Board (CRBRWQCB). https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/bp032014/rb7_bp_appendix.pdf

Cowardin, L. M., Carter, V., Golet, F. C., & LaRoe, E.T. (1979). (rep.) *Classification of wetlands and deepwater habitats of the United States.* USGS Publications Warehouse. Retrieved August 2018, from https://www.fws.gov/wetlands/documents/classification-of-wetlands-and-deepwater-habitats-of-the-united-states.pdf

Curtis, K. E., & Lichvar, R. W. (2010). (rep). *Updated datasheet for the identification of the Ordinary High Water Mark (OHWM) in the Arid West region of the Western United States.* Cold Regions Research and Engineering Laboratory (U.S.) & Engineers Research and Development Center (U.S.). https://erdc-library.erdc.dren.mil/jspui/handle/11681/2613

Environmental Laboratory. (1987). (rep). *Corps of Engineers wetlands delineation manual.* Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station.

Google Earth Pro V 7.3.4.8642. (2022). Thousand Palms, California. 33°49'50.69"N 116°23'48.38"W. Eye alt 4,343 feet. Image Google. Retrieved May 2022.

Holland, R. F. (1986). *Preliminary descriptions of the terrestrial natural communities of California.* State of California, the Resources Agency, Dept. of Fish and Game.

Jepson Flora Project (eds.) (2022). *Jepson eFlora.* The Jepson Herbarium University of California, Berkley. Retrieved September 2022, from http://ucjeps.berkeley.edu/eflora/

Lichvar, R., & McColley, S. M. (2008). (rep.) *A field guide to the identification of the ordinary high water mark (OHWM) in the Arid West region of the western United States: a delineation manual.* Hanover, New Hampshire: U.S. Army Engineers Research and Development Center.

Munsell Color (Firm). (2015). *Munsell soil color charts with genuine Munsell color chips.* Munsell Color.

National Oceanic and Atmospheric Administration (NOAA). (2022). *May 2022 drought report.* National Centers for Environmental Information (NCEI). Retrieved May 2022, from http://www.ncdc.noaa.gov/sotc/drought

Natural Resources Conservation Service (NCRS). (n.d.a). *NRCS official soil series description view by name.* U.S. Department of Agriculture Natural Resources Conservation Service (NCRS). Retrieved May 2022, from https://soilseries.sc.egov.usda.gov/osdname.aspx

Natural Resources Conservation Service (NRCS). (n.d.b). *Soil data access (SDA) hydric soils list.* U.S. Department of Agriculture. Retrieved May 2022, from https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316620.html

Natural Resources Conservation Service (NRCS), L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). (2018a). *Field indicators of hydric soils in the United States, version 8.2. U.S. Department of Agriculture (USDA).* USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf

Natural Resources Conservation Service (NRCS). (2022). *Monthly total precipitation and daily data for Palm Springs ASOS.* Agricultural Applied Climate Information System (AgACIS). Retrieved May 2022, from http://agacis.rcc-acis.org/?fips=06065

Riverside County Watershed Protection. (2020). *The story of the Whitewater River watershed.* Retrieved September 2022, from https://rcwatershed.org/2020/06/10/the-story-of-the-whitewater-river-watershed/

Sprecher, S. W., & Warne, A. G. (2000). (rep.). *Accessing and using meteorological data to evaluate wetland hydrology.* Vicksburg, Mississippi: U.S. Army Corps of Engineers.

U.S. Army Corps of Engineers (Corps). (2008). *Regional supplement to the Corps of Engineers wetland delineation manual: Arid West region*. Vicksburg, Mississippi: U.S. Army Engineers Research and Development Center.

U.S. Army Corps of Engineers. (2016). *Updated map and drawing standards for the South Pacific Division Regulatory Program.* U.S. Army Corps of Engineers south pacific division website. Retrieved February 2018, from https://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/

U.S. Army Corps of Engineers (Corps). (2017). *USACE Los Angeles District's minimum standards for acceptance of aquatic resources delineation reports.* U.S. Army Corps of Engineers. Retrieved February 2018, from https://www.spl.usace.army.mil/portals/17/users/251/43/2043/final%20delin%20report%20standards%203-16-2017.pdf?ver=2017-03-16-170513-523

U.S. Army Corps of Engineers (Corps). (2020a). *2020 NWPL v3.5 - Species detail tool. National wetland plant list (NWPL).* Retrieved May 2022, from https://cwbi-app.sec.usace.army.mil/nwpl_static/v34/species/species.html?DET=001100

U.S. Army Corps of Engineers (Corps). (2020b). *Antecedent precipitation tool (APT) - v1.0.19.* Retrieved May 2022, from https://github.com/jDeters-USACE/Antecedent-Precipitation-Tool/releases/tag/v1.0.19

U.S. Fish and Wildlife Service (USFWS). (2021). *National wetlands inventory surface waters and wetlands.* U.S. Fish and Wildlife Service. Retrieved May 2022, from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

U.S. Geological Survey (USGS). (2020). *The national map, advanced viewer.* U.S. Department of Interior. Retrieved May 2022, from https://viewer.nationalmap.gov/advanced-viewer/

University of California, Davis (UCD). (n.d.). *Whitewater River.* California water indicators portal. Retrieved September 2022, from https://indicators.ucdavis.edu/cwip/huc/18100201

University of California, Santa Barbara (UCSB). (n.d.). *Frame finder.* UCSB library. Retrieved June 2022, from https://mil.library.ucsb.edu/ap_indexes/FrameFinder/

APPENDIX H

GIS DATA (PROVIDED ELECTRONICALLY TO AGENCIES)

APPENDIX E

ASSESSMENT OF SPECIAL-STATUS PLANT SPECIES POTENTIAL TO OCCUR WITHIN THE PROJECT SITE

Appendix E

Assessment of Special-Status Plant Species Potential to Occur Within the Project Site

Species	Status	Habitat Description	Potential to Occur
Abrams' spurge (*Euphorbia abramsiana*)	CRPR 2B.2	Annual herb. Blooms (August) September-November. Mojavean and Sonoran desert scrub. Elevation -15-4300 feet.	Low. Sonoran creosote bush scrub present on site, however it is disturbed and little to no annuals were observed during field surveys within this habitat.
Arizona spurge (*Euphorbia arizonica*)	CRPR 2B.3	Perennial herb. Blooms March-April. Sonoran desert scrub (sandy). Elevation 165-985 feet.	Low. While this species has been recorded within three miles of the project site (CDFW 2022a; Figure 5A) and Sonoran creosote bush scrub is present on site, the habitat is disturbed. Physical alterations and introduction of non-native plant species have reduced suitability of habitat for Arizona spurge.
California satintail (*Imperata brevifolia*)	CRPR 2B.1	Perennial rhizomatous herb. Blooms September-May. Coastal sage scrub, creosote bush scrub, chaparral, and wetland-riparian. Elevation 0-3985 feet.	Low. Although this species can be found in upland habitats, it is more commonly associated with aquatic features, which are found on site. This species was not observed on site and has not been observed within three miles of the project site (CDFW 2022a; Figure 5A).
Chaparral sand-verbena (*Abronia villosa* var. *aurita*)	CRPR 1B.1	Annual herb. Blooms (January) March-September. Chaparral, coastal scrub, and desert dunes. Elevation 245-5250 feet.	Low. While this species has been recorded within three miles of the project site (CDFW 2022a; Figure 5A) and Sonoran creosote bush scrub is present on site, anthropogenic disturbances have impacted the habitat suitability through physical alteration and introduction of non-natives. Little to no annuals were observed during field surveys.
Cliff spurge (*Euphorbia misera*)	CRPR 2B.2	Perennial shrub. Blooms (October)December-August. Coastal bluff scrub, coastal scrub, Mojavean desert scrub. Elevation 35-1640 feet.	None. No suitable scrub habitats occur within the project site.

Species	Status	Habitat Description	Potential to Occur
Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*)	FE, CRPR 1B.2; CVMSHCP	Annual/perennial herb. Blooms February-May. Desert dunes and sandy Sonoran desert scrub. Elevation 130-2150 feet.	Low. Sonoran creosote bush scrub present on site, however it has been disturbed by off-road vehicle use and introduction on non-native plants. The natural aeolian sand transport system, which is essential for population viability, has been disrupted by adjacent development. This species has been recorded within one mile of the project site (CDFW 2022a; USFWS 2022a; Figure 5A-B).
Deep Canyon snapdragon (*Pseudorotium cyathiferum*)	CRPR 2B.3	Annual herb. Blooms February-April. Sonoran desert scrub (rocky). Elevation 0-2645 feet.	Low. Sonoran creosote bush scrub present on site, however it is disturbed and little to no annuals were observed during field surveys within this habitat.
Flat-seeded spurge (*Euphorbia platysperma*)	CRPR 1B.2	Annual herb. Blooms February-September. Desert dunes and Sonoran desert scrub (sandy). Elevation 215 to 330 feet.	Low. Recorded within one mile of the project site (CDFW 2022a; Figure 5A). Sonoran creosote bush scrub is present on site; however, it is disturbed and little to no annuals were observed during field surveys within this habitat.
Glandular ditaxis (*Ditaxis claryana*)	CRPR 2B.2	Perennial herb. Blooms October-March. Mojavean and Sonoran desert scrub. Elevation 0-1525 feet.	Low. Sonoran creosote bush scrub present on site, however it is disturbed by off-road vehicle use and introduction on non-native plants.
Horn's milkvetch (*Astragalus hornii* var. *hornii*)	CRPR 1B.1	Annual herb. Blooms May-October. Meadows, seeps, and playas. Elevation 195-2790 feet.	None. No suitable habitats occur within the project site.
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	CRPR 1B.2	Annual herb. Blooms April-July. Coastal scrub, chaparral, valley and foothill grassland, meadows and seeps, and vernal pools. Elevation 100-5020 feet.	None. No suitable habitats occur within the project site.
Mecca-aster (*Xylorhiza cognata*)	CRPR 1B.2; CVMSHCP	Perennial herb. Blooms January-June. Sonoran desert scrub. Elevation 65-1310 feet.	Very Low. Although Sonoran creosote bush scrub present on site this species is typically associated with fluvial deposits which are not found on site.

Species	Status	Habitat Description	Potential to Occur
Narrow-leaf sandpaper-plant (*Petalonyx linearis*)	CRPR 2B.3	Perennial shrub. Blooms (January-February)March-May(June-December). Mojavean and Sonoran desert scrub. Elevation -80-3660 feet.	Low. Sonoran creosote bush scrub present on site, it is disturbed, and this species is typically associated with sandy or rocky canyons which are not present on site.
Orocopia sage (*Salvia greatae*)	CRPR 1B.3; CVMSHCP	Perennial evergreen shrub. Blooms March-April. Mojavean and Sonoran desert scrub. Elevations 130-2705 feet.	None. Project site is not within known distribution of this species.
Parish's brittlescale (*Atriplex parishii*)	CRPR 1B.1	Annual herb. Blooms June-October. Chenopod scrub, playas, and vernal pools. Elevation 80-6235 feet.	None. No suitable habitats occur within the project site.
Singlewhorl burrobrush (*Ambrosia monogyra*)	CRPR 2B.2	Perennial shrub. Blooms August-November. Chaparral and Sonoran desert scrub. Elevation 35-1640 feet.	Low. Species not observed on site. Suitable scrub habitat has significant human disturbances.
Slender cottonheads (*Nemacaulis denudata* var. *gracilis*)	CRPR 2B.2	Annual herb. Blooms (March) April-May. Coastal dunes, desert dunes, and Sonoran desert scrub. Elevation 165-1310 feet	Low. Sonoran creosote bush scrub present on site, however it is disturbed. Other suitable habitat types are not present. Species has not been recorded within three miles of the project site (CDFW 2022a; Figure 5A).
Sonoran maiden fern (*Pelazoneuron puberulum* var. *sonorensis*)	CRPR 2B.2	Perennial rhizomatous herb. Blooms January-September. Riparian, seeps, and meadows. Elevation 165-2000 feet.	None. No suitable aquatic habitats occur within the project site.
Triple-ribbed milkvetch (*Astragalus tricarinatus*)	FE; CRPR 1B.2; CVMSHCP	Perennial herb. Blooms February-May. Joshua tree "woodland" and Sonoran desert scrub. Elevation 1475-3905 feet.	Very Low. Project site is not within known distribution of this species.

CRPR: California Rare Plant Rank
CVMSHCP: Coachella Valley Multiple Species Habitat Conservation Plan Covered Species
FE: Federally Endangered

APPENDIX F

ASSESSMENT OF SPECIAL-STATUS WILDLIFE SPECIES POTENTIAL TO OCCUR WITHIN THE PROJECT SITE

Appendix F

Assessment of Special-Status Wildlife Species Potential to Occur Within the Project Site

Species	Status	Habitat Description	Potential to Occur
INVERTEBRATES			
Casey's June beetle (*Dinacoma caseyi*)	FE	Exclusively confined to Riverside County. Burrow and oviposit in alluvial sand and washes; have been found in vacant lots within developed areas.	Low. Suitable soils occur on site. However, the project site outside of the species' known local range and recommended project site.
Coachella Valley giant sand treader cricket (*Macrobaenetes valgum*)	CVMSHCP	Found in loose, non-stabilized sand specifically: active sand dunes, sand hummocks, ephemeral sand fields, and mesquite fields. Burrow in aeolian sand habitats of sparse vegetation.	Low. Fine sands and widely spread vegetation occur on site however, dune, aeolian habitat is not present.
Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*)	CVMSHCP	Found in dune, wind deposited fine sands or gravelly, alluvial sandy soils. Vulnerable to desiccation; prefers cool, moist environments.	Low. Suitable sediment occurs on site (e.g., Carsitas gravelly sand). Annual precipitation in 2021-22 was less than three inches on site; the Coachella Valley Jerusalem cricket enters the central Coachella Valley only when adequate moisture and cool temperatures permit. Wind deposited sands are limited on site because the aeolian sand transport system has been altered by surrounding development. Species has been recorded within one mile of project site (CDFW 2022a; Figure 5A).
Monarch butterfly (*Danaus plexippus*)	FC	Found in a variety of habitats across the United States and Mexico (e.g., grasslands, urban land, mountains, and costal habitats). Exclusively oviposit on milkweed (*Asclepias spp.*). Nectivorous adults require flowering plants. Roost in eucalyptus, Monterey pines, and Monterey cypresses in California.	Low. Ornamental vegetation in residential area adjacent to site may offer flowering plants.. Project area lacks milkweed essential for larvae maturation. Suitable roosting habitat not present.

Species	Status	Habitat Description	Potential to Occur
FISH			
Desert pupfish (*Cyprinodon macularius*)	FE; SE; CVMSHCP	Found within the Salton Sea, washes, irrigation drains, slow moving creeks, and other tributaries (e.g., San Felipe and Salt creeks). Confined to waters ranging from 40-108°F and varying in salinity from freshwater to 68-70 parts per thousand (ppt).	None. No suitable aquatic habitats occur on site or within proximity.
AMPHIBIANS			
Arroyo toad (*Anaxyrus californicus*)	FE; CVMSHCP	Require breeding pools with the following parameters: 2-4 feet wide, less than 4 inches deep, lacking currents.	None. Annual precipitation 2021-22 was less than three inches on site and the project site lacks suitable aquatic habitat to support breeding pools.
REPTILES			
Coachella Valley fringe-toed lizard (*Uma inornata*)	FT; SE; CVMSHCP	Exclusively confined to the sand dunes of Coachella Valley, Riverside County. Found in desert wash habitats, sparse desert, or alkali scrub where fine, windblown sand or dunes are present.	Very Low. Project site primarily consists of disturbed Sonoran creosote scrub and developed land and windblown sand is very limited. Species has been documented within one mile of project site (CDFW 2022a; Figure 5A).
Desert tortoise (*Gopherus agassizii*)	FT; ST; CVMSHCP	Burrow in firm sandy or gravelly soils along creosote bush flats, riverbanks, washes, dunes, alluvial fans, hillsides, and canyons, often containing rocky areas.	None. The site is surrounded by/consists of developed land and is composed of disturbed habitat/vegetation. Desert tortoises have low potential to occur near urbanized land due to increased threats (e.g., elevated predatory populations [domestic or native] and roads or OHV use areas). Adequate food sources are not present on site and no suitable burrows were observed.

Species	Status	Habitat Description	Potential to Occur
Flat-tailed horned lizard (*Phrynosoma mcallii*)	SSC; CVMSHCP	Fine to gravelly sand in desert washes and flats with sparse vegetative cover and prey species (ants), generally below 600 feet elevation in Riverside, San Diego, and Imperial Counties.	Low. Though suitable habitat is present, it is surrounded by/consists of developed land and disturbed habitat. Land adjacent to development has low suitability due to increased direct threats, such as predation by domestic/feral pets and urban adapted native species (e.g., coyote, raven, etc.). Prey source (ants) observed on site. Species has been recorded within one mile of project site (CDFW 2022a; Figure 5A).
BIRDS			
Burrowing owl (*Athene cunicularia*)	SSC (at burrowing sites & some wintering sites); CVMSHCP	Found in grasslands and open scrub from the coast to foothills. Strongly associated with California ground squirrel (*Otospermophilus beecheyi*) and other fossorial mammal burrows.	Low. Disturbed suitable habitat is present; however, no suitable burrows occur on site. Species has been documented within one mile of project site (CDFW 2022a; USFWS 2022a; Figures 5A-B).
Black-tailed gnatcatcher (*Polioptila melanura*)	WL	Found within semiarid and desert thorn scrub with creosote bush.	Low. Disturbed, sparse suitable habitat is present on site. This species has a low tolerance for disturbance and will only nest in native vegetation (Cornell Lab of Ornithology [CLO] 2022).
California black rail (*Laterallus jamaicensis coturniculus*)	FT; CVMSHCP	Occur in saltwater and freshwater marshes dominated by wetland vegetation (e.g., pickleweed, bulrush, or saltgrass). Nests in dense semi-aquatic vegetation.	None. The project site does not include marsh habitat or the associated wetland vegetation species.
California horned lark (*Eremophila alpestris actia*)	WL	Found from coastal deserts and grasslands to alpine dwarf-shrub habitat above treeline. Also seen in coniferous or chaparral habitats.	Present. Species observed on site. Known to utilize disturbed desert habitats, such as those found on the project site.
Crissal thrasher (*Toxostoma crissale*)	SSC; CVMSHCP	Found in the Coachella Valley region, inhabits mesquite thickets containing catclaw acacia (*Acacia greggii*), desert ironwood (*Olneya tesota*), and arrowweed (*Pluchea sericea*).	Very Low. No suitable habitat occurs on site, no mesquite thickets present. Trees on site are limited to tamarisk; vegetation is dominated by creosote, *Schismus* sp., *Atriplex* sp. and other shrubs/herbs.

Species	Status	Habitat Description	Potential to Occur
Gray vireo (*Vireo vicinior*)	SSC (nesting); CVMSHCP	Require continuous chapparal shrub cover, 1-5 feet above the ground. Found in or near chamise (*Adenostoma fasciculatum*) or red shank (*A. sparsifolium*) in southern California.	None. No suitable, continuous chapparal habitat occurs on site.
LeConte's thrasher (*Toxostoma lecontei*)	SSC; CVMSHCP	Found within saltbush scrub, creosote bush scrub, and other lightly vegetated desert scrub. Permanent resident within California range.	Moderate. Disturbed, fragmented suitable habitat is present on site. This species inhabits sparse, low, and open habitats such as those found on site. Species has been documented within one mile of project site (CDFW 2022a; Figure 5A).
Least Bell's vireo (*Vireo bellii pusillus*)	FE; SE (nesting); CVMSHCP	Found within riparian woodland with understory of dense young willows or mule fat and willow canopy. Nests often placed along internal or external edges of riparian thickets.	None. No suitable habitat occurs on site, no woodlands or thickets present.
Merlin (*Falco columbarius*)	WL	Found in grasslands, woodlands, wetlands, and along coastlines, edges, and lakes.	Low. No suitable habitat is found on site. Project area primarily consists of disturbed habitat and disturbed Sonoran creosote scrub.
Olive-sided flycatcher (*Contopus* cooperi)	SSC (nesting)	Breed in coniferous, late successional stage forests at elevations from 3018-6988 feet.	None. Project site is outside of the suitable, breeding elevation range and no coniferous habitat occurs on site.
Prairie falcon (*Falco mexicanus*)	WL (nesting)	Desert shrubland and grasslands. Primarily forages in grassland habitats. Nest in scrapes of cliffs, bluffs, or rock outcrops.	Moderate. Known from the local area. Invasive grass (*Schismus* sp.) and disturbed Sonoran creosote bush scrub occur on site. Potential prey (ground squirrel) present and species has been documented within one mile of project site (CDFW 2022a; Figure 5A).
Sharp-shinned hawk (*Accipiter striatus*)	WL (nesting)	Roost in mid- to high-canopy forests, nests in single layered forest canopy, and hunts migratory birds and small animals (e.g., reptiles and insects) at the edge of woodlands, brushy pastures, and shorelines.	Low. No suitable forests, brush, or woodlands are present on site for hunting, nesting, or roosting.

Species	Status	Habitat Description	Potential to Occur
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE (nesting); CVMSHCP	Found within dense riparian woodlands comprised of willows and cottonwoods.	None. No suitable habitat occurs on site, no woodlands or thickets present.
Swainson's hawk (*Buteo swainsoni*)	ST (nesting)	Found in open grasslands and swaths of agriculture intermixed with native habitat.	Low. Although suitable habitat for this species is present among agricultural fields to the north, the project site is primarily composed of development and disturbed Sonoran creosote scrub.
Summer tanager (*Piranga rubra*)	SSC; CVMSHCP	Nest in mature riparian woodlands composed of willows and cottonwoods. A dense canopy is required to maintain thermal homeostasis during mid-summer nesting.	None. Riparian woodland habitat and does not occur on site. Summer tanager cannot nest in sparse desert scrub due to heat exposure.
Vermilion flycatcher (*Pyrocephalus rubinus*)	SSC (nesting)	Deserts, scrub, agricultural fields, parks, golf courses, and riparian woodlands, often near a water source.	Moderate. Site consists of development and disturbed Sonoran desert scrub. Agricultural land exists north of site and golf courses south of site offer potential water sources.
Yellow breasted chat (*Icteria virens*)	SSC (nesting); CVMSHCP	Nest in early-stage riparian habitats with adequate shrub cover and an open canopy where dense thickets and tall perching trees are present.	None. No riparian habitat occurs on site; vegetation at the project site is sparse and primarily consists of Sonoran creosote bush species (e.g., burrobrush).
Yellow warbler (*Dendroica petechia brewsteri*)	SSC (nesting); CVMSHCP	Found in riparian habitats along aquatic resources containing willows and cottonwoods or in wet meadows.	Present. Observed in developed habitat within survey area near a water detention basin. Willow trees appropriate for nesting occur in the basin.
Yuma clapper rail (*Rallus longirostris yumanensis*)	FE, SE; CVMSHCP	Nest in freshwater vegetation near aquatic resource. Prey on beetles, crayfish, and snails.	None. No freshwater vegetation occurs on site. Not within known species range.
MAMMALS			
Coachella Valley round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*)	SSC; CVMSHCP	Habitats include eolian dunes and desert scrub containing shrubs for cover and burrowing. Prefers mesquite thickets and coarse sand/gravel soils.	Presumed Present. Round-tailed ground squirrel observed on site. Project site exhibits sparse vegetation cover (widely spaced shrubs) and gravelly sands. Species has been documented within one mile of project site (CDFW 2022a; Figure 5A).

Species	Status	Habitat Description	Potential to Occur
Palm springs pocket mouse (*Perognathus longimembris bangsi*)	SSC; CVMSHCP	A variety of habitats including creosote bush scrub, desert scrub, and grasslands containing uncompressed soils and sparse to moderate vegetation cover.	Moderate. Suitable habitat occurs on site as disturbed Sonoran creosote bush scrub.
Peninsular bighorn sheep (*Ovis canadensis nelsoni*)	FE; SE; CVMSHCP	Found within low growing vegetation (e.g., green succulent grasses and forbs) near an aquatic resource. Proximity to rocky steep terrain is essential for predator evasion, bedding, and lambing.	None. Suitable foraging and bedding habitat is not present on site, no steep terrain present.
Western yellow bat (*Lasiurus xanthinus*)	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees.	Low. No palm, riparian, or other suitable habitat present on site.

CVMSHCP: Coachella Valley Multiple Species Habitat Conservation Plan Covered Species
FC: Federal Candidate Species for listing under the Endangered Species Act
FE: Federally Endangered
FT: Federally Threatened
SE: State Endangered
ST: State Threatened
SSC: CDFW Species of Special Concern
WL: CDFW Watch List Species