APPENDIX 3

Biological Resources Assessment, Jurisdictional Delineation and Land Use Consistency Analysis

Biological Resources Assessment, Jurisdictional Delineation And Land Use Consistency Analysis For the Mission Springs Water District's West Valley Water Reclamation Program

Desert Hot Springs Area of Riverside County, California
USGS – *Desert Hot Springs* and *Seven Palms Valley* Quadrangles
Township 3 S, Range 4 E; and Township 3 S, Range 5 E

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Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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Executive Summary

Jacobs Engineering Group, Inc. (Jacobs) was retained by Tom Dodson and Associates (TDA) to conduct a biological resources assessment (BRA) for the Mission Springs Water District (District) West Valley Water Reclamation Program (Project). The proposed Project includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek aquifers. The Project site is generally located within the District's Service Area, which encompasses the City of Desert Hot Springs and surrounding areas of unincorporated Riverside County, California.

The District as well as the City of Desert Hot Springs (City), are both participants of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), and consequently the entire proposed Project site lies within the CVMSHCP Area. Additionally, the Project area is located partially within and adjacent a Conservation Area.

The Project area encompasses both urban and undeveloped environments, including paved (Dillon Road) and unpaved (Little Morongo Road) roadways. There are several sensitive species documented within the Project vicinity, including the State- and federally-listed as threatened desert tortoise (*Gopherus agassizii*) and burrowing owl (*Athene cunicularia*), which is a State and federal Species of Special Concern (SSC).

The CVMSHCP requires a habitat assessment for burrowing owl (BUOW). If habitat for the BUOW is present within the Project area, a focused survey is required. Suitable BUOW habitat was identified on site during the habitat assessment survey. Additionally, there is some moderately-suitable habitat for desert tortoise within and adjacent portions of the Project site. Therefore, focused protocol-level surveys for these species were conducted within the Project site and surrounding areas, wherever suitable habitat was present. However, the result of the focused desert tortoise and BUOW surveys was that no desert tortoise or BUOW individuals or sign were detected within the survey area. Therefore, these species are considered absent from the Project site at the time of survey.

No other listed or otherwise sensitive species or sensitive habitat was observed within the Project area and none are expected to occur on site.

There are several intermittent or ephemeral dry washes within the Project area that meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California Fish and Game Code (FGC) under the jurisdiction of the California Department of Fish and Wildlife (CDFW), as well as "Waters of the United States" (WoUS) as defined by Section 404 of the Clean Water Act (CWA) under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Therefore, regulatory permits from these agencies may be required for this Project.

1 Introduction

The District is proposing to implement the West Valley Water Reclamation Program (Project or WVWRP) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek aquifers. The primary purpose and objectives of the proposed Project are:

- To expand the District's Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater;
- To improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern;
- To increase the capacity at the Horton Wastewater Treatment Plant (HWWTP) by diverting a portion of the existing sewered areas to the proposed West Valley Water Reclamation Facility (WVWRF); and
- To design the WVWRP facilities in a way that will accommodate future expansions and upgrades to produce effluent to meet recycled water standards, when proposed by the District. Doing so will maximize future water recourses within the District's service area by providing a source of water that can be directly used to offset potable water demand for landscape irrigation within the District's service area.

On behalf of TDA, Jacobs has prepared this BRA and protocol-level focused desert tortoise and non-breeding season BUOW surveys report for the District's proposed Project. The BRA fieldwork and focused sensitive species surveys were conducted by TDA sub-consultant Michael Kegarice for the Project area from September 20 to December 3, 2018 (see Table 2 for exact survey dates). The purpose of the BRA is to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

The Project area was assessed for sensitive species known to occur locally. Attention was focused on those State- and/or federally-listed as threatened or endangered species and California Fully Protected species that have been documented in the Project vicinity, whose habitat requirements are present within or adjacent the Project site. Results of the biological resources assessment survey and focused surveys are intended to provide sufficient baseline information to the Project proponent and, if required, to federal and State regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS) and CDFW, respectively, to determine if impacts will occur to sensitive biological resources and to identify mitigation measures to offset those impacts.

In addition to the BRA and focused surveys conducted by TDA, Jacobs conducted a desktop Jurisdictional Delineation (JD) of the Project area. The purpose of this desktop evaluation was to assess the potential presence and extent of State and/or federal jurisdictional waters within the Project area, potentially subject to regulation by the USACE under Section 404 of the CWA, Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1600 of the California FGC, respectively.

Finally, the Project site falls entirely within the CVMSHCP area and is partially within and adjacent the Willow Hole Conservation Area. Therefore, Jacobs conducted a Land Use Consistency analysis to determine whether the Project is consistent with the Conservation Goals and Objectives of CVMSHCP.

1.1 Project Description

The WVWRP has three components: construction of a wastewater treatment plant (the WVWRF), construction of a conveyance system connecting existing sewered areas to the WVWRF and constructing a collection system for the GQPP Area M2 (to be served by the WVWRF).

West Valley Water Reclamation Facility

The District is proposing to consolidate its wastewater treatment operations at a regional site presently owned by the District. This undeveloped 60-acre site is located at the northwest corner of the intersection of Little Morongo Road and 20th Avenue (Figures 3b & 4b). The District's existing Well 33 site presently occupies the northeast corner of this site, adjacent to Little Morongo Road. The WVWRF will be comprised of the following individual facilities:

- Influent pump station
- Coarse screening with screenings compactor
- Stacked Tray or Vortex grit removal with grit classifiers
- Sequencing batch reactors (SBR)
- Effluent disposal to infiltration basins
- Aerated sludge storage with decanter for gravity thickening
- 3-Belt Belt Filter Press (BFP) for biosolids dewatering
- Sludge Drying Beds as reliable backup
- Contract disposal of biosolids
- Odor control
- Emergency stand-by power generator

As funding becomes available, the District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day (MGD). Initial flows are projected to be 0.20 MGD. By the end of Year 1, flows are projected to be 0.29 MGD. Flows are projected to gradually increase to 1.0 MGD by Year 7 and 1.2 MGD by Year 9. The WVWRF will be constructed in phases with ultimate "build-out" capacity of up to 20 MGD. The WVWRF is being planned, designed, and implemented to permit the District to allow future expansion with minimal demolition and removal of any Phase 1 facilities.

West Valley Water Reclamation Facility Sewer Conveyance System

The proposed WVWRF Sewer Conveyance System begins near the intersection of Avenida Manzana and Dillon Road, continues west along Dillon Road to Little Morongo Road, then south along Little Morongo Road to the WVWRF (Figures 3c & 4c). In total, approximately 16,454 linear feet (3.12 miles) of sewer line will be installed within the existing Dillon Road to Little Morongo Road alignments and the entire conveyance system would be installed within existing paved and unpaved road right-of-way (ROW). The area served by the WVWRF Sewer Conveyance System is within the District's service area and is generally located west of Little Morongo Road and north of Dillon Road.

Area M-2 Collection System

The Area M-2 Collection System will connect 687 parcels to the District's sewer system and abate over 406 existing on-site septic systems. This Project component envisions the installation of approximately 25,260 linear feet of 4-inch gravity sewer, 17,272 lineal feet of 8-inch gravity sewer (VCP), with short runs of 12-inch to 15-inch gravity sewer. The sewer will be installed within existing public ROW. Extension of onsite lateral connections from the sewer mains would be completed as individual properties are developed. Developed parcels could be connected immediately after the complete sewer collection system is connected to the sewer mains delivering wastewater to the treatment plant.

The sewer flows from Area M-2 will flow south to Dillon Road, then west along Dillon Road to the Dos Palmas Lift Station near Dillon Road and Avenida Manzana. The Dos Palmas Lift Station currently delivers flow north along Avenida Manzana to the HWWTP. However, the Conveyance System will take flows from the Dos Palmas Lift Station and deliver them to the WVWRF.

1.2 Location

The District's service area is in southern California within the northwestern portion of the Coachella Valley. The service area encompasses approximately 135 square miles with focus on the City of Desert Hot Springs and surrounding unincorporated areas of Riverside County, California. The service area also encompasses the villages of Palm Springs Crest and West Palm Springs located in the southwest corner of the District. Figure 2 shows the District's current service area boundaries. All future proposed facilities will be located inside the District's service area boundary. For purposes of this BRA, the "Project site" includes the areas that will be impacted by the proposed WVWRF, Conveyance System and Collection System for the GQPP Area M2, as depicted in Figures 3-4.

The Project site is generally located in the Sections 5, 7, and 8 of Township 3 South, Range 5 East, and in Sections 12 and 14 of Township 3 South, Range 4 East (San Bernardino Base Meridian), and is depicted on the *Desert Hot Springs* and *Seven Palms Valley* U. S. Geological Survey's (USGS) 7.5-Minute Series Quadrangle maps (Figures 3a-3d). The WVWRF component is specifically located within an undeveloped 60-acre site situated on the northwest corner of Little Morongo Road and 20th Avenue, approximately 0.8 miles east of Interstate 10 (I-10) and N Indian Canyon Drive intersection (Figures 3b & 4b). The Conveyance System component is located entirely within the existing Dillon and Little Morongo Roads (Figures 3c & 4c). Approximately 2 miles of the proposed sewer conveyance pipeline alignment is within paved Dillon Road, extending from Avenida Manzana at the eastern end to Little Morongo Road at the western end, and approximately 1.12 miles of the proposed pipeline alignment is located within unpaved Little Morongo Road, extending from Dillon Road at the northern end to the proposed 60-acre WVWRF site at the southern end. The Area M-2 Collection System component is located entirely within existing residential development situated north of Dillon Road, between Mountain View Road to the east and Palm Drive to the west, approximately 2.5 miles northeast of the proposed WVWRF component (Figures 3d & 4d).

1.3 Environmental Setting

The Project site is within the City of Desert Hot Springs and adjacent unincorporated areas of Riverside County. The Desert Hot Springs area is situated in the northwestern end of the Coachella Valley and is bordered on the north and northeast by the Little San Bernardino Mountains, on the east/southeast by the Seven Palms Valley and Edom Hills and on the west by the San Bernardino Mountain foothills. The Desert Hot Springs area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures within this region peak at 108.2 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 42.3° F in December/January. Average annual precipitation is

greatest from November through March and reaches a peak in January (1.13 inches). Precipitation is lowest in the months of May and June (0.05 inches). Annual total precipitation averages 5.49 inches.

Hydrologically, the Project area is located within the Mission Creek Hydrologic Sub-Area (HSA 719.42) which comprises a 73,873-acre drainage area within the larger Whitewater River Watershed (HUC 18100201). The Whitewater River is the major hydrogeomorphic feature within the Whitewater Watershed.

The primary soil types within the Project area are Carsitas fine sand, 0 to 5 percent slopes and Carsitas gravelly sand, 0 to 9 percent slopes. These soil types consist of fine to gravelly sands that are comprised of alluvium derived from granite. Both soil types are excessively drained soils with very low to negligible runoff classes.

The general Project vicinity consists of residential development and disturbed undeveloped land, existing paved and unpaved roads, and transportation corridor to the south (I-10). The Collection System component of the Project is located entirely within an urban environment and the Conveyance System component is entirely within existing paved and unpaved roads surrounded by a mix of urban and undeveloped land. The proposed 60-acre WVWRF site is within an undeveloped area comprised of disturbed Sonoran mixed woody and succulent scrub habitat.

2 Assessment Methodology

2.1 Biological Resources Assessment

Data regarding biological resources on the Project site were obtained through literature review and field investigations. Prior to performing the surveys, available databases and documentation relevant to the Project area were reviewed for documented occurrences of sensitive species in the Project vicinity (approximately 3 miles). The USFWS threatened and endangered species occurrence data overlay and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data on the *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* USGS 7.5-Minute Series Quadrangles. The Project area is situated partially within the *Desert Hot Springs* quad and partially within the *Seven Palms Valley* quad and the site's proximity to the *Palm Springs* and *Cathedral City* quads lead to their inclusion in the review. These databases contain records of reported occurrences of State- and federally-listed species or otherwise sensitive species and habitats that may occur within the vicinity of the Project site (approximately 3 miles). Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

Biological Resources Assessment

TDA subconsultant Michael Kegarice conducted a biological resources assessment of the Project area in September of 2018. The survey area encompassed the entire planned disturbance area and included 100 percent coverage of the site, as well as an approximately 200-foot buffer area surrounding the site, where feasible and appropriate. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the Project area.

Protocol-level Desert Tortoise Survey

Desert tortoise surveys were conducted September through October of 2018. in accordance with the protocols described in the USFWS's 2009 *"Desert Tortoise (Mojave Population) Field Manual: (Gopherus agassizii),"* the 2010 *"Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats,"* and the August 31, 2017 survey protocol update, *"Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (Gopherus agassizii)."* Per the USFWS survey protocol, 100 percent visual coverage of the survey area was achieved by walking 10-meter (30-foot) wide belt transects over the entire Project site, to provide sufficient coverage, wherever there was potentially suitable desert tortoise habitat present (i.e. Sonoran mixed woody and succulent scrub habitat), to provide sufficient coverage to find signs of desert tortoise use to find signs of desert tortoise use (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc. in addition to live tortoises). Portions of the Project area that were not surveyed to protocol-level coverage consisted of existing development and other disturbed areas that no longer support suitable desert tortoise habitat.

In addition to the 100 percent coverage of the Project site, the surveyor walked 200-, 400- and 600-meter transects around the perimeter of the Project site, in accordance with the USFWS 2010 *Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats*. It should be noted that these "zone of influence" transects are no longer required as of the 2017 updated protocol. However, to provide additional sampling of the areas adjacent the Project site, the 200-, 400- and 600-meter transects around the perimeter of the Project site were included in the survey. The transect routes were calculated and downloaded to handheld global positioning system (GPS) units that were used to accurately navigate the transects. Site photographs were taken during the field survey to catalog representative habitat (See attached Site Photos).

Non-breeding Season Burrowing Owl Survey

The focused BUOW survey was conducted in a manner consistent with the intent of the *"Burrowing Owl Survey Protocol and Mitigation Guidelines"* prepared by the California Burrowing Owl Consortium (1993) and the March 7, 2012 *"California Department of Fish and Game Staff Report on Burrowing Owl Mitigation."* Focused BUOW surveys were conducted during the non-breeding season from October to December of 2018. The surveys consisted of walking transects spaced approximately 30 meters (100 feet) apart to provide 100 percent visual coverage of the Project site. Adjacent areas that were not accessible on foot were surveyed with binoculars. During the survey, the biologists looked for BUOW and sign including, burrows, molted feathers, cast pellets, prey remains, owl white wash, and suitable surrogate burrows. The area was also assessed for soil type and level of friability as well as habitat type and habitat structure.

2.2 Jurisdictional Delineation

Jacobs biological technician Daniel Smith conducted a desktop evaluation of the Project area for the presence of riverine/riparian/wetland habitat and jurisdictional waters (i.e. WoUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW.

Aerial photographs of the Project area were viewed and compared with the surrounding USGS 7.5-Minute Topographic Quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The USFWS National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" Google Earth Pro data layer were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site(s). Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed for soil types

found within the Project area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Upstream and downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Watermark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents listed in Section 5 of this report.

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology*.

- *Hydrophytic vegetation*: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the *2016 National Wetland Plant List (Western Mountains, Valleys & Coast Region)* (Lichvar, 2016). Each species on the list is rated per a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

Table 1. Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

- *Hydric Soil*: Soil maps from the USDA-NRCS Web Soil Survey (USDA 2019) were reviewed for soil types found within the Project area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

  The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Gretag/Macbeth, 2000). Soil pits were dug to an approximate depth of 18 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

- *Wetland Hydrology*: The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

3 Results

3.1 Existing Biological and Physical Conditions

The Project site consists urban environments and undeveloped land, occupying flat to gently-sloped terrain. The Collection System component of the Project is entirely within existing residential development and the Conveyance System component is entirely within existing paved and unpaved ROW. The WVWRF component of the Project is within an undeveloped 60-acre site. Disturbances within and adjacent the WVWRF site, as well as in the undeveloped areas adjacent the Conveyance System (Dillon and Little Morongo Roads) component, include OHV use, illegal dumping and litter.

The surveys were conducted in optimal conditions during active timeframes for the target species. Table 2 (below) lists weather conditions for all fieldwork conducted on site.

Table 2. Survey Dates and Weather Conditions

Date	% Cloud Cover	Wind (mph)	Temperature (° F)	Precipitation
Biological Resources Assessment and Desert Tortoise Surveys				
09/20/18	40	0-6	81-93	0
09/21/18	0	0-12	81-97	0
09/24/18	0	0-4	76-98	0
09/25/18	0	0-6	77-95	0
09/28/18	0	0-8	82-101	0
09/29/18	0	0-7	80-96	0
10/01/18	40-100	0-14	79-83	0
10/02/18	20-80	0-8	76-87	0
10/03/18	0	0-6	74-86	0
Non-breeding Season BUOW Surveys				
10/09/18	0	0-3	63-85	0
10/11/18	0	0-10	65-80	0
10/12/18	20-50	0-8	69-84	0
10/17/18	0	4-12	65-80	0
10/18/18	0	0-7	65-83	0
10/24/18	0	0-13	71-91	0
11/19/18	0	0-6	55-76	0
11/20/18	0	0-7	54-79	0
11/21/18	0	0-8	54-73	0
11/22/18	10-80	0-6	58-74	0
11/23/18	0	0-3	53-74	0
11/24/18	0	0-5	57-75	0

11/25/18	0	0-4	55-77	0
11/26/18	0	0-9	59-78	0
11/28/18	0	0-9	54-73	0
11/29/18	100	0-7	57-67	0
12/03/18	0	0-8	50-66	0

3.1.1 Habitat

Habitat that exists within and adjacent the 60-acre WVWRF site and adjacent a portion of the Conveyance System component of the Project consists primarily of Sonoran mixed woody and succulent scrub habitat (CVMSHCP GIS Vegetation Layer 2019). Native plant species identified within the Project area include hairy sand verbena (*Abronia villosa* var. *villosa*), white bursage (*Ambrosia dumosa*), cheesebrush (*A. salsola*), clavate fruited primrose (*Chylismia claviformis*), desert croton (*Croton californicus*), cryptantha (*Cryptantha* ssp.), silver cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), desert tea (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), hairy desert sunflower (*Geraea canescens*), white rhatany (*Krameria bicolor*), creosote bush (*Larrea tridentata*), desert dandelion (*Malacothrix glabrate*), Spanish needle (*Palafoxia arida*), bladderpod (*Peritoma arborea*), indigo bush (*Psorothamnus* ssp.), narrow leaved stillingia (*Stillingia linearifolia*) and broad leaved stillingia (*S. spinulosa*). Non-native, invasive plant species identified within the Project area include Saharan mustard (*Brassica tournefortii*), foxtail brome (*Bromus madritensis* ssp. *rubens*), Russian thistle (*Salsola tragus*) and Mediterranean grass (*Schismus* ssp.).

3.1.2 Wildlife

Amphibians and Reptiles

No amphibian species were observed or otherwise detected within the Project area and none are expected to occur. The only reptiles observed within the Project area were Great Basin whiptail (*Aspidoscellis tigris tigris*), zebra-tailed lizard (*Callisaurus draconoides*), desert iguana (*Dipsosaurus dorsalis*) and western side-blotched lizard (*Uta stansburiana elegans*).

Birds

Avian species observed in the Project area include red-tailed hawk (*Buteo jamaicensis*), Costa's hummingbird (*Calypte costae*), Wilson's warbler (*Cardellina pusilla*), common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), loggerhead shrike (*Lanius ludovicianus*) and mourning dove (*Zenaida macroura*).

Mammals

Identification of mammals within the Project area was generally determined by physical evidence rather than direct visual identification. This is because 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and 2) no mammal trapping was performed. Mammal species observed or otherwise detected during the reconnaissance-level survey included black-tailed jackrabbit (*Lepus californicus*) and domestic dogs and cats. Other common species expected to occur within the Project area include coyote (*Canis latrans*), Merriams' kangaroo rat (*Dipodomys merriami*), and desert cottontail (*Sylvilagus audubonii*).

3.2 Special Status Species and Habitats

Per the CNDDB, CNPSEI, and other relevant literature and databases, 61 sensitive species (29 plant species, 32 animal species) and three sensitive habitats have been documented in the *Desert Hot Springs, Seven*

Palms Valley, Palm Springs and *Cathedral City* USGS 7.5-minute series quadrangles. This list of sensitive species and habitats includes any State- and/or federally-listed threatened or endangered species, California Fully Protected species, CDFW designated SSC, and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

Of the 11 State- and/or federally-listed species documented within the *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* quads, the following four State- and/or federally-listed species have been documented in the Project vicinity (within approximately 3 miles):

- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*)
- desert tortoise (*Gopherus agassizii*)
- Coachella Valley fringe-toed lizard (*Uma inornata*)
- Least Bell's vireo (*Vireo bellii pusillus*)

However, the habitat requirements for Least Bell's vireo (i.e. riparian habitats) are absent from the Project area and immediate vicinity. Therefore, no further discussion of this species is warranted.

Although not a State- or federally-listed as threatened or endangered species, burrowing owl (*Athene cunicularia* [BUOW]) are considered a State and federal SSC and this species is protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California FGC (FGC #3513 & #3503.5). Furthermore, this species has been documented approximately 0.25 mile west of the 60-acre WVWRF site. Therefore, BUOW will be included in the discussion below.

An analysis of the likelihood for occurrence of all CNDDB sensitive species documented in the *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* quads is provided in Table 4. This analysis considers species' range as well as documentation within the vicinity of the Project area and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site conditions.

The Project site is not within any sensitive habitats, including any USFWS designated Critical Habitat for any federally-listed species. However, the portion of the Conveyance System component of the project that is located within Little Morongo Road is adjacent (to the west) a section of the Mission Creek Morongo Wash System USFWS designated Coachella Valley milk-vetch Critical Habitat unit (Unit 3).

3.2.1 Special Status Species

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the reconnaissance-level field survey and there is no suitable habitat for any sensitive species within the area of the Collection System component of the Project. However, some of the habitat requirements for several sensitive species documented within the Project vicinity (approximately 3 miles) are present within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the project. In addition to the BRA survey, focused protocol-level surveys were conducted within the Project area for desert tortoise and BUOW.

Coachella Valley milk-vetch – Endangered (Federal)

The federally-listed as endangered Coachella Valley milk-vetch is an annual or short-lived perennial plant in the Fabacae (pea) family. This species is primarily found on loose aeolian (i.e. wind transported) or

alluvial (i.e. water transported) sands that are located on dunes or flats, and along disturbed margins of sandy washes in the Coachella Valley, Riverside County, California (USFWS 2009). The number of standing plants at any given time is only a partial indication of population size because the other portion of the population is the seed bank in the substrate that can persist dormant for several years (USFWS 2009). Coachella Valley milk-vetch typically blooms from February through May (Calflora 2017).

> *Findings*: A focused Coachella Valley milk-vetch survey was not conducted, but no Coachella Valley milk-vetch were observed during the reconnaissance-level BRA survey, or other focused sensitive species surveys, and this species is not expected to occur in any significant numbers within the Project area. Per the literature review, the nearest documented Coachella Valley milk-vetch occurrences (2012) are approximately 0.3 miles east of the proposed 60-acre WVWRF site and adjacent the north side of the Dillon Road portion of the Conveyance System component of the Project, respectively.
>
> There are no Coachella Valley milk-vetch occurrences documented within the Project site and the habitat on site is only marginally-suitable for this species, which occurs primarily on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes (USFWS 2009). The soils within the Project area consist of compacted sands that have become stabilized due to a moderately-dense vegetation cover, including several non-native species, particularly Saharan mustard and common Mediterranean grass (see attached Site Photos). Furthermore, the CVMSHCP has modeled suitable Coachella Valley milk-vetch habitat within the Plan area and the Project site is completely outside of any areas of modeled Coachella Valley milk-vetch habitat. Therefore, it is unlikely this species occurs within the Project area in any significant numbers.

Desert Tortoise – Threatened (State/Federal)

The desert tortoise is a State- and federally-listed threatened species. Throughout its range, it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise is typically found in creosote bush scrub. They are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers.

In 1992 the BLM issued the *California Statewide Desert Tortoise Management Policy* which included categorizing habitat into three levels of classification. The management goal for Category I areas is to maintain stable, viable populations and to increase the population where possible. The management goal for Category II areas is to maintain stable, viable populations. The management goal for Category III areas is to limit population declines to the extent feasible. In April 1993, the BLM amended the CDCA plan to delineate these three categories of desert tortoise habitat on public lands. With the adoption of the West Mojave Plan (BLM 2005), all lands that are outside Desert Wildlife Management Areas are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the desert tortoise.

> *Findings*: Per the literature review, the nearest documented desert tortoise occurrence (2004) is approximately 3.3 miles northeast of the Project area. Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat. Furthermore, the Project site is not within a BLM designated Desert Wildlife Management Area (USFWS 2011). Therefore, the habitat surrounding the site would be characterized as Category 3 Habitat, per the BLM categorization of desert tortoise habitat on public lands.
>
> The habitat within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion

of the Conveyance System component of the Project, consists of disturbed Sonoran mixed woody and succulent scrub habitat that is marginally-suitable for desert tortoise. Therefore, focused protocol-level desert tortoise surveys were conducted in 2018 in accordance with the USFWS survey protocols, within the Project impact area and surrounding buffer area, wherever there was potentially suitable desert tortoise habitat present (i.e. Sonoran mixed woody and succulent scrub habitat).

The result of the protocol desert tortoise survey was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including other desert tortoise burrows or scat were observed. Therefore, desert tortoise are considered absent from the Project area at the time of survey.

Coachella Valley fringe-toed lizard – Threatened (Federal)/ Endangered (State)

The Coachella Valley fringe-toed lizard (CVFTL) is a medium-sized lizard that has physical adaptations to keep fine sand out of its eyes, mouth, nose, and ears and is restricted to sand dune habitats on the floor of the Coachella Valley in Riverside County, California (USFWS 2010). CVFTL is specialized to occupy a specific habitat type consisting of accumulations of windblown (aeolian) sand. Deeper sand deposits with more topographic relief are preferred by the species over flatter sand sheets (USFWS 2010). CVFTL are typically active from February to October and dormant from November to January. During the summer months, the lizards escape the heat by "swimming" or burrowing beneath the sand and restricts its activities to the early morning and late afternoon hours (USFWS 2010).

Threats to CVFTL primarily consist of habitat destruction/alteration due to urban and agricultural development, OHV use, windbreaks, exotic vegetation, and other disruptions to the formation of the wind-blown sand drifts this lizard requires. It is estimated that approximately 90-95 percent of historical CVFTL habitat has been lost and currently only 15,000-20,000 acres remain available (USFWS 2010). Thus, the CVFTL was listed as threatened under the federal ESA on September 25, 1980 and as endangered under the CESA that same year. Critical Habitat was designated for this species by the USFWS at the time of listing.

Findings: A focused CVFTL survey was not conducted, but no CVFTL were observed during the reconnaissance-level BRA survey, or other focused sensitive species surveys, and none are expected to occur within the Project area. Per the literature review, there are numerous historic CVFTL occurrences within the Project vicinity. However, the conditions present within the Project area are not suitable for CVFTL. This species requires aeolian sand dunes, particularly deeper sand deposits with more topographic relief than flatter sand sheets (USFWS 2010). There is no sand dune habitat within the Project site or immediate surrounding area. Rather, the habitat on site consists of relatively flat Sonoran mixed woody and succulent scrub habitat. The sandy soils on site are compacted and stabilized due to a moderately-dense vegetation cover, including several non-native species, particularly Saharan mustard and common Mediterranean grass (see attached Site Photos). Furthermore, the CVMSHCP has modeled suitable CVFTL habitat within the Plan area and the Project site is completely outside of any areas of modeled suitable CVFTL habitat. Therefore, the site does not contain any habitat that would be considered suitable to support CVFTL and this species is not expected to occur within the Project area.

Burrowing owl – SSC

The BUOW is a ground dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW is heavily dependent upon the presence of mammal burrows, with ground squirrel burrows being a common choice, in its habitat to provide shelter from

predators, inclement weather and to provide a nesting place (Coulombe 1971). They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows. BUOW spend a great deal of time standing on dirt mounds at the entrance to a burrow or perched on a fence post or other low to the ground perch from which they hunt for prey. They feed primarily on insects such as grasshoppers, June beetles and moths, but will also take small rodents, birds, and reptiles. They are active during the day and night, but are considered a crepuscular owl; generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31.

BUOW have disappeared from significant portions of their range in the last 15 years and, overall, nearly 60% of the breeding groups of owls known to have existed in California during the 1980s had disappeared by the early 1990s (Burrowing Owl Consortium 1993). The BUOW is not listed under the State or federal ESA, but is considered both a State and federal SSC. The BUOW is a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California FGC (FGC #3513 & #3503.5).

Findings: Per the literature review, the nearest documented BUOW occurrence (2007) is approximately 0.25 mile west of the proposed 60-acre WVWRF site. There are no BUOW occurrences documented within the Project site.

Per the definition provided in the *2012 CDFG Staff Report on Burrowing Owl Mitigation*, "Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey." The habitat within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the Project, does contain suitable habitat for this species for the following reasons:

- *The site and immediate vicinity contain areas of short, sparse vegetation;*
- *The site contains well-drained, friable soils; and*
- *Appropriately sized mammal burrows were observed within the Project area during survey.*

Therefore, focused non-breeding season BUOW surveys were conducted within the Project area during the 2018 non-breeding season.

Prior to performing the field surveys, available databases and documentation, such as the USFWS threatened and endangered species occurrence data overlay as well as the most recent version of the CNDDB, were reviewed for documented occurrences of BUOW in the local vicinity within the *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* quads.

The surveys were conducted on calm weather days, during peak BUOW activity between the morning hours of 6:00 a.m. and 10:00 a.m. and evening hours of 3:30 p.m. to 6:30 p.m. in accordance with the *"Burrowing Owl Survey Protocol and Mitigation Guidelines"* prepared by the California Burrowing Owl Consortium (1993) and the March 7, 2012 *"California Department of Fish and Game Staff Report on Burrowing Owl Mitigation."*

As per BUOW survey guidelines, the entire Project site as well as a 500-foot (150 meters) survey buffer (where appropriate, feasible and accessible) was systematically searched by walking transects spaced at approximately 30 meters (100 feet) apart, which provided 100% visual coverage of the ground surface. During each site visit, all natural and non-natural substrates were inspected and searched for signs of BUOW including, burrows, molted feathers, cast pellets, prey remains,

and owl white-wash. All potential BUOW burrows encountered were examined for shape, scat, pellets, and tracks. Date, time and weather conditions were logged and a hand-held, GPS unit was used to survey straight transects, to identify Project boundaries, and for other pertinent information. A digital camera was used to take representative photographs, and Google Earth Pro was accessed to provide recent aerial photographs of the Project site and surrounding area.

The result of the focused BUOW surveys is that no BUOW individuals or sign were observed within the survey area. Therefore, BUOW are considered absent from the Project area at the time of survey.

3.2.2 Special Status Habitats

The Project site is not within any special status habitats, including any USFWS designated Critical Habitat for any federally-listed species. However, the portion of the Conveyance System component of the project that is located within Little Morongo Road is adjacent (to the west) a section of the Mission Creek Morongo Wash System USFWS designated Coachella Valley milk-vetch Critical Habitat unit (Unit 3). The Project will not result in any impacts to adjacent Critical Habitat units, or any other special status habitats.

3.3 Jurisdictional Delineation

The Project site is within the Mission Creek Hydrologic Sub-Area (HSA 719.42) which comprises a 73,873-acre drainage area within the larger Whitewater River Watershed (HUC 18100201). This watershed is primarily within Riverside County with a small portion of San Bernardino County. The Whitewater River Watershed is bound on the north by the Santa Ana and Southern Mojave Watersheds, on the southeast by the Salton Sea Watershed, on the south by the San Felipe Creek Watershed and on the southwest by the San Jacinto and Santa Margarita Watersheds. The Whitewater River Watershed encompasses a portion of the San Bernardino and Little San Bernardino Mountains to the north and the San Jacinto Mountains to the south and is approximately 1,500 square miles in area. The Whitewater River is the major hydrogeomorphic feature within the Whitewater River Watershed. The proposed 60-acre WVWRF component of the Project is situated north and outside of the historic Whitewater River floodplain, approximately 600-650 feet west of Mission Creek, which is tributary to Whitewater River. The portion of the Conveyance System component of the Project that is within existing Dillon Road crosses Mission Creek, as well as Morongo Wash, which is east of Mission Creek and also tributary to Whitewater River.

Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WoUS under Section 404 CWA. WoUS are defined as: "All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters" (Section 404 of the CWA; 33 CFR 328.3 (a). CWA jurisdiction exists over the following:

1. all traditional navigable waters (TNWs);
2. all wetlands adjacent to TNWs;
3. non-navigable tributaries of TNWs that are relatively permanent waters (RPWs) i.e., tributaries that typically flow year-round or have continuous flow at least seasonally; and
4. every water body determined to have a significant nexus with TNWs.

As previously described, the portion of the Conveyance System component of the Project that is within existing Dillon Road crosses Mission Creek and Morongo Wash, which are both intermittent streams that

are tributary to Whitewater River. Additionally, there is an unnamed intermittent stream (Drainage A) that flows through the proposed 60-acre WVWRF site, from north to south. Drainage A converges with Mission Creek approximately 0.7 miles southeast (downstream) of the southeast corner of the proposed 60-acre WVWRF site. Approximately 1 mile southeast (downstream) of the Drainage A/Mission Creek confluence, Mission Creek converges with Whitewater River, which originates in the San Bernardino Mountains and terminates at the Salton Sea. The Salton Sea is a TNW. Thus, Drainage A, Mission Creek and Morongo Wash all have a surface water connection to a TNW. Due to the connectivity of these intermittent streams to Whitewater River, the USACE would consider these features to have a "significant nexus" with a TNW. Therefore, they are considered jurisdictional WoUS subject to regulation by the USACE under Section 404 of the CWA (Figures 5a-5b).

USACE Wetlands

Areas meeting all three parameters would be designated as USACE wetlands. None of the three required parameters, hydrophitic vegetation, hydric soils and/or wetland hydrology, are present within the Project site. Therefore, no wetlands were identified in the study area during this investigation based of the absence of hydrophitic vegetation, hydric soil indicators and/or wetland hydrology.

State Lake/Streambed

The Project site is situated on flat to gently-sloped terrain consisting primarily of residential development, roads and Sonoran mixed woody and succulent scrub habitat. Although there is no riparian associated habitat within the Project site, Drainage A, Mission Creek and Morongo Wash all have a definable bed and bank. Therefore, these drainages would be subject to regulation by the CDFW under Section 1600 of the FGC (Figures 5a-5b).

3.4 Land Use Designations

Coachella Valley MSHCP

The County of Riverside developed the CVMSHCP to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth. The CVMSHCP sets Conservation Goals and Objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System. In addition to setting Conservation Goals and Objectives for the Covered Species and conserved natural communities, the MSHCP has designated Core Habitat, Other Conserved Habitat, Essential Ecological Processes, and Biological Corridors and Linkages. The CVMSHCP area is divided into Conservation Areas based on a combination of ecological and jurisdictional factors. The CVMSHCP is intended to satisfy the legal requirements to authorize the "take" of species covered under the Plan during otherwise lawful activities, by providing for the conservation of the Covered Species.

The proposed 60-acre WVWRF site and Collection System components of the Project are outside any Conservation Areas (Figure 6). The Conveyance System component of the Project within existing Dillon Road, crosses a section of the Willow Hole Conservation Area where Dillon Road crosses Mission Creek (Figure 6). However, the Conveyance System component is entirely within existing roads (Dillon Road is an asphalt paved road) and will not impact any habitat within the Willow Hole Conservation Area. Additionally, Dillon Road crosses an area mapped by the CVMSHCP as a Biological Corridor/Linkage and a Sand Transport (alluvial) area, which is one of the Essential Ecological Processes identified in the CVMSHCP. As stated above, the Conveyance System component is entirely within existing roads and will not impact any Biological Corridors and Linkages or Essential Ecological Processes.

Although not within any Conservation Areas, the proposed 60-acre WVWRF site is adjacent (west of) the Willow Hole Conservation Area. Additionally, portions of the Conveyance System component of the Project are adjacent both the Willow Hole and the Upper Mission Creek/Big Morongo Canyon Conservation Areas, respectively. Section 4.5 of the CVMSHCP identifies guidelines to avoid or minimize indirect effects from development sharing a common boundary with Conservation Areas. These Guidelines Are:

1) *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 with 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.

2) *Toxics* – Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate byproducts 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.

3) *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 the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.

4) *Noise* – Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq 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 to be included in the Implementation Manual.

5) *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 to the maximum extent Feasible; recommended native species are listed in Table 4-112 [of the CVMSHCP]. The plants listed in Table 4-113 [of the CVMSHCP] 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.

6) *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.

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

The Project proponent should be prepared to pay the MSHCP fees and restrict all project related impacts to existing ROW and/or other areas outside of the Conservation Areas. No other conservation or avoidance measures are expected.

4 Conclusions and Recommendations

4.1 Sensitive Biological Resources

A BRA and focused protocol-level desert tortoise and BUOW surveys were conducted by TDA sub-consultant Michael Kegarice in 2018, to identify potential suitable habitat for special status species that have been documented within the Project vicinity, including the State- and/or federally-listed species discussed in Section 3.2.1 (above), as well as BUOW. The result of the surveys is that no listed plant or animal species were detected within the Project area and none are expected to occur. The Project site consists urban environments and undeveloped land. The Collection System component of the Project is entirely within existing residential development and the Conveyance System component is entirely within existing paved and unpaved ROW. The WVWRF component of the Project is within an undeveloped 60-acre site consisting of disturbed Sonoran mixed woody and succulent scrub habitat. Due to the environmental conditions within the Project area and surrounding land uses, the Project site is not likely to support any of the State- or federally-listed species that have been documented in the Project vicinity.

The Project is not located within any USFWS designated Critical Habitat for threatened or endangered species and will not impact any Critical Habitat, or otherwise sensitive habitats.

Coachella Valley milk-vetch

The proposed 60-acre WVWRF site is marginally-suitable to support the federally-listed as endangered Coachella Valley milk-vetch and this species has been documented in the Project vicinity. However, the sandy soils within the Project area are stabilized due to a moderately-dense vegetation cover (see attached Site Photos), including several non-native, invasive species and Coachella Valley milk-vetch typically occurs on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes. Furthermore, the CVMSHCP has modeled suitable Coachella Valley milk-vetch habitat within the Plan area and the Project site is completely outside of any areas of modeled Coachella Valley milk-vetch habitat. Therefore, it is unlikely this species occurs within the Project area in any significant numbers and any potential project-related impacts would be considered less than significant.

Additionally, the Project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch and this species is one of the CVMSHCP Covered Species. The CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species. The District is a signatory to the CVMSHCP. Since the Coachella Valley milk-vetch is a Covered Species under the CVMSHCP and the Project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch, “take” authorization is provided for any potential Project-related impacts to this species.

Desert tortoise

The habitat within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the Project, consists of disturbed Sonoran mixed woody and succulent scrub habitat that is marginally-suitable for desert tortoise and this species has been documented in the Project vicinity. However, the result of focused protocol-level desert tortoise surveys conducted in 2018, within the Project impact area and surrounding buffer area, was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including other desert tortoise burrows or scat were observed. Therefore, desert tortoise are considered absent from the Project area at the time of survey and the Project is not likely to impact this species.

Burrowing owl

There is suitable BUOW habitat within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the Project and this species has been documented in the Project vicinity. The result of focused non-breeding season BUOW surveys conducted in 2018, was that no BUOW individuals or sign were observed within the survey area. Therefore, BUOW are considered absent from the Project area at the time of survey and the Project is not likely to impact this species. However, given that there is suitable BUOW habitat within the Project area and this species has been documented in the near Project vicinity, it is recommended that:

- A **30-day** preconstruction **BUOW survey** be conducted by a qualified biologist prior to commencement of Project activities, to avoid any potential Project-related impacts to BUOW that may move onto the site in the future.

According to protocol and standard practices, the results of the habitat assessment surveys will remain valid for the period of one year, or until October 2019, after which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of desert tortoise, BUOW and other sensitive flora and fauna on-site. Regardless of survey results and conclusions given herein, desert tortoise and BUOW are protected by applicable State and/or federal laws, including but not exclusive to the CESA and Federal ESA. As such, if a desert tortoise or BUOW are found on-site during work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions. Additionally, it should be noted that desert tortoise may be handled only by a qualified biologist who has been given authorization by the appropriate agencies (i.e. USFWS and CDFW).

Nesting Birds

The Project site and surrounding area consists of Sonoran mixed woody and succulent scrub habitat that is suitable to support nesting birds. As discussed, most birds are protected by the MBTA. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following is recommended:

- To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist shall conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to suitable nesting areas to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

4.2 Jurisdictional Waters

Drainage A, Mission Creek and Morongo Wash are jurisdictional intermittent/ephemeral streams that are subject to the CWA and FGC under the jurisdictions of USACE, RWQCB, and CDFW, respectively (Figures 5a-5b). Therefore, any proposed permanent or temporary impacts to these features will require a Streambed Alteration Agreement from the CDFW, as well as CWA Sections 401/404 permits from the RWQCB and USACE, respectively.

The project will result in both temporary and permanent impacts to jurisdictional waters, including temporary excavation within Mission Creek and Morongo Wash for sewer pipeline installation, and permanent discharge of fill within Drainage A to construct the WVWRF. Table 3 (below) lists the approximate lengths, widths and acreages of State and federal jurisdictional features on site.

Table 3. Summary of Acreages of Jurisdictional Waters on Site

Feature	Average Width (feet)	Length (feet)	Non-wetland WoUS (acres)	State Streambed (acres)
Drainage A	11.5	4,000	1.06	1.06
Mission Creek	103	70	0.17	0.17
Morongo Wash	64	70	0.10	0.10
Total Acres	**N/A**	**N/A**	**1.33**	**1.33**

USACE 404 Permit

The two most common types of permits issued by USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into WoUS are: a nation-wide permit (NWP) or an individual permit (IP). NWPs are general permits for specific categories of activities that result in minimal impacts to aquatic resources. The discharge must not cause the loss of greater than ½ acre to WoUS, including the loss of no more than 300 linear feet of streambed. Projects that would exceed these limits would require an IP.

Although the proposed sewer pipeline alignment crosses Mission Creek and Morongo Wash, these temporary construction impacts will be restricted to the Dillon Road ROW, which consists of existing fill comprised of asphalt roadway and compacted road shoulder. Therefore, the Conveyance System component of the Project will not impact WoUS and the proposed sewer pipeline construction will not require any Section 404 permits from the USACE.

Construction of the WVWRF component of the Project would impact Drainage A, which is an intermittent stream, non-wetland WoUS. Permanent Project-related impacts to this feature totaling no more than ½ acre or 300 linear feet would require an NWP from the USACE. Project-related impacts that would result in greater than ½ acre or 300 linear feet of permanent impacts to Drainage A would likely require an IP.

Regional Water Quality Control Board 401 Certification

The Project area is within the jurisdiction of the Colorado River RWQCB (Regional Board 7). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards. The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the waterway. In addition to the formal application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation must be included with the application.

FGC Section 1600 Lake or Streambed Alteration Agreement

An FGC Section 1600 Lake or Streambed Alteration (LSA) Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. In addition to the formal application materials and fee (based on cost of the Project), a copy of the appropriate CEQA documentation must be included with the application.

The Conveyance System component of the Project will temporarily impact approximately 0.27 acres of CDFW jurisdictional intermittent/ephemeral streambed, where the proposed sewer pipeline alignment crosses Mission Creek and Morongo Wash. Additionally, construction of the WVWRF component of the Project would permanently and/or temporarily impact Drainage A, which is also a CDFW jurisdictional intermittent/ephemeral stream. No riparian habitat exists within the proposed Project footprint. However, Drainage A, Mission Creek and Morongo Wash are considered CDFW jurisdictional features and therefore, the Project would require a Section 1600 LSA Agreement.

4.3 Land Use Designations

The Project is within the CVMSHCP boundary. The proposed 60-acre WVWRF site and Collection System components of the Project are entirely outside any Conservation Areas (Figure 6). The Conveyance System component of the Project within existing Dillon Road, crosses a section of the Willow Hole Conservation Area where Dillon Road crosses Mission Creek (Figure 6). However, the Conveyance System component is entirely within existing ROW (Dillon Road is an asphalt paved road) and will not impact any habitat within the Willow Hole Conservation Area. Additionally, Dillon Road crosses an area mapped by the CVMSHCP as a Biological Corridor/Linkage and a Sand Transport (alluvial) area, which is one of the Essential Ecological Processes identified in the CVMSHCP. As stated above, the Conveyance System component is entirely within existing ROW and will not impact any Biological Corridors and Linkages or Essential Ecological Processes.

Given that portions of the Project are adjacent the Willow Hole and/or the Upper Mission Creek/Big Morongo Canyon Conservation Areas, the Project shall conform with the Guidelines for projects that are adjacent CVMSHCP Conservation Areas, which are listed in Section 3.4 of this report. No other conservation or avoidance measures are expected and the Project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

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Table 4
CNDDB Species
Occurrence Potential

Table 4. CNDDB Species and Habitats Documented Within the *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* USGS 7.5-minute Quadrangles

Scientific Name	Common Name	Listing Status	Other Lists	Habitat	Occurrence Potential
Abronia villosa var. *aurita*	chaparral sand-verbena	None/ None	G5T2?; S2; CNPS: 1B.1	Chaparral, coastal scrub, desert dunes. Sandy areas. -60-1570 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 3.3 miles SW of the Project site. Occurrence potential is **low**.
Acmispon haydonii	pygmy lotus	None/ None	G3; S3; CNPS: 1B.3	Sonoran Desert scrub, pinyon and juniper woodland. Creosote bush scrub to pinyon and juniper woodland; rocky sites. 180-1280 m.	The environmental requirements for this species are absent from the Project area and the only documented occurrence within the 4-quad CNDDB search is a historic collection (1930) from approx. 3.3 miles SW of the Project site. Occurrence potential is **low**.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None/ None	G5T3; S3; CDFW: WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Almutaster pauciflorus	alkali marsh aster	None/ None	G4; S1S2; CNPS: 2B.2	Meadow and seeps. Alkaline. 60-765 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Ambrosia monogyra	singlewhorl burrobrush	None/ None	G5; S2; CNPS: 2B.2	Chaparral, Sonoran Desert scrub. Sandy soils. 5-475 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the only documented occurrence within the 4-quad CNDDB search is a historic collection (1922) from approx. 6.6 miles SW of the Project site. Occurrence potential is **low**.
Aquila chrysaetos	golden eagle	None/ None	G5; S3; CDFW: FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No suitable nesting habitat (i.e. cliffs or tall trees) exists within the Project area. Occurrence potential is **low**.
Astragalus lentiginosus var. *coachellae*	Coachella Valley milk-vetch	Endangered/ None	G5T1; S1; CNPS: 1B.2	Sonoran Desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 35-695 m.	The sandy soils within the Project area are stabilized due to a moderately-dense vegetation cover, including several non-native, invasive species and this species typically occurs on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes. Furthermore, the CVMSHCP has modeled suitable habitat for this species within the Plan area and the Project site is completely outside of any areas of modeled habitat. Therefore, it is unlikely this species occurs within the Project area in any significant numbers. Occurrence potential is **low**.

Astragalus tricarinatus	triple-ribbed milk-vetch	Endangered/ None	G2; S2; CNPS: 1B.2	Joshua tree woodland, Sonoran Desert scrub. Hot, rocky slopes in canyons and along edge of boulder-strewn desert washes, with *Larrea* and *Encelia.* 455-1585 m.	The Project area is outside the known elevation range for this species and the environmental requirements for this species are absent from the Project site. Occurrence potential is **low**.
Athene cunicularia	burrowing owl	None/ None	G4; S3; CDFW: SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	There is suitable habitat for this species within the Project area. However, the result of protocol BUOW surveys conducted by TDA in 2018 was that no BUOW or sign was observed in the Project area. Therefore, BUOW are considered absent from the Project site at the time of survey. Occurrence potential is **low**.
Atriplex parishii	Parish's brittlescale	None/ None	G1G2; S1; CNPS: 1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 4-1420 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Ayenia compacta	California ayenia	None/ None	G4; S3; CNPS: 2B.3	Mojavean Desert scrub, Sonoran Desert scrub. Sandy and gravelly washes in the desert; dry desert canyons. 60-1830 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 7.2 miles SW of the Project site. Occurrence potential is **low**.
Bombus crotchii	Crotch bumble bee	None/ None	G3G4; S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.*	Some of the food plants for this species may be present in the Project area, but the only documented occurrence for this species within the 4-quad CNDDB search is a historical collection (1958) from approx. 5 miles SW of the Project site. Occurrence potential is **low**.
Calileptoneta oasa	Andreas Canyon leptonetid spider	None/ None	G1; S1	Known only from the type locality, Andreas Canyon, Palm Springs, Riverside County.	This species is known only from Andreas Canyon, which is situated approx. 9.8 miles SW of the Project site. Occurrence potential is **low**.
Caulanthus simulans	Payson's jewelflower	None/ None	G4; S4; CNPS: 4.2	Chaparral, coastal scrub. Frequently in burned areas, or in disturbed sites such as streambeds; also, on rocky, steep slopes. Sandy, granitic soils. 90-2200 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/ None	G5T34; S3S4; CDFW: SSC	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Some suitable habitat for this species is present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 6 miles NW of the Project site. Occurrence potential is **low**.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/ None	G3T2; S2; CNPS: 1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of two vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.

Chorizanthe xanti var. *leucotheca*	white-bracted spineflower	None/ None	G4T3; S3; CNPS: 1B.2	Mojavean Desert scrub, pinyon and juniper woodland, coastal scrub (alluvial fans). Sandy or gravelly places. 365-1830 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is a historic collection (1949) from approx. 4.2 miles NW of the Project site. Occurrence potential is **low**.
Corynorhinus townsendii	Townsend's big-eared bat	None/ None	G3G4; S2; CDFW: SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	No suitable roosting habitat for this species exists within the Project area. Occurrence potential is **low**.
Crotalus ruber	red-diamond rattlesnake	None/ None	G4; S3; CDFW: SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Cypseloides niger	black swift	None/ None	G4; S2; CDFW: SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Desert Fan Palm Oasis Woodland	Desert Fan Palm Oasis Woodland	None/ None	G3; S3.2		This habitat is **absent** from the Project area.
Dinacoma caseyi	Casey's June beetle	Endangered/ None	G1; S1	Found only in two populations in a small area of southern Palm Springs. Found in sandy soils; the females live underground and only come to the ground surface to mate.	The Project area is approx. 7 miles N of the nearest documented occurrence and is outside the known range of this species. Occurrence potential is **low**.
Dodecahema leptoceras	slender-horned spineflower	Endangered/ Endangered	G1; S1; CNPS: 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include *Encelia, Dalea, Lepidospartum*, etc. Sandy soils. 200-765 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Eriastrum harwoodii	Harwood's eriastrum	None/ None	G2; S2; CNPS: 1B.2	Desert dunes. Sandy soils. 15-1100m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the only documented occurrence within the 4-quad CNDDB search is a historic collection (1939) from approx. 6.2 miles NW of the Project site. Occurrence potential is **low**.

Euphorbia arizonica	Arizona spurge	None/ None	G5; S3; CNPS: 2B.3	Sonoran Desert scrub. Sandy soils. 150-900 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 8.4 miles E of the Project site. Occurrence potential is **low**.
Euphorbia misera	cliff spurge	None/ None	G5; S2; CNPS: 2B.2	Coastal bluff scrub, coastal scrub, Mojavean Desert scrub. Rocky sites. 3-430 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Euphorbia platysperma	flat-seeded spurge	None/ None	G3; S1; CNPS: 1B.2	Mojavean Desert scrub, desert dunes. Sandy places or shifting dunes. Possibly a waif in California; more common in Arizona and Mexico. 60-960 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 5.8 miles NW of the Project site. Furthermore, this species is considered a possible waif in CA. Occurrence potential is **low**.
Falco mexicanus	prairie falcon	None/ None	G5; S4; CDFW: WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	No suitable nesting habitat (i.e. cliffs) exists within the Project area. Occurrence potential is **low**.
Gopherus agassizii	desert tortoise	Threatened/ Threatened	G3; S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Although the Project area is disturbed, some suitable habitat for this species is present within the Project area. The nearest documented occurrence (1997) is approx. 5.8 miles NW of the Project site. Furthermore, the result of protocol desert tortoise surveys conducted by TDA in 2018 were negative for this species. Therefore, this species is considered absent from the Project area at the time of survey and occurrence potential is **low**.
Heuchera hirsutissima	shaggy-haired alumroot	None/ None	G3; S3; CNPS: 1B.3	Subalpine coniferous forest, upper montane coniferous forest. Often near large rocks. Granitic substrate. 1065-3200 m.	The Project area is outside the known elevation range for this species and the habitats this species is associated with are not present within the Project area. Occurrence potential is **low**.
Imperata brevifolia	California satintail	None/ None	G4; S3; CNPS: 2B.1	Coastal scrub, chaparral, riparian scrub, Mojavean Desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Lasiurus xanthinus	western yellow bat	None/ None	G5; S3; CDFW: SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	No suitable roosting habitat for this species exists within the Project area. Occurrence potential is **low**.

Lilium parryi	lemon lily	None/ None	G3; S3; CNPS: 1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain; generally, in forested areas; on shady edges of streams, in open boggy meadows and seeps. 625-2930 m.	The Project area is outside the known elevation range for this species and the habitats this species is associated with are not present within the Project area. Occurrence potential is **low**.
Linanthus jaegeri	San Jacinto linanthus	None/ None	G2; S2; CNPS: 1B.2	Subalpine coniferous forest, upper montane coniferous forest. Dry rocky granitic outcrops; sheer, vertical habitat. 1985-3050 m.	The Project area is outside the known elevation range for this species and the habitats this species is associated with are not present within the Project area. Occurrence potential is **low**.
Linanthus maculatus ssp. *maculatus*	Little San Bernardino Mtns. linanthus	None/ None	G2T2; S2; CNPS: 1B.2	Desert dunes, Sonoran Desert scrub, Mojavean Desert scrub, Joshua tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 135-1220 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is approx. 2.6 miles N of the Project site. Occurrence potential is **low – moderate**.
Macrobaenetes valgum	Coachella giant sand treader cricket	None/ None	G1G2; S1S2	Known from the sand dune ridges near Coachella Valley. Population size regulated by amount of annual rainfall; some spots favor permanent habitation where springs dampen sand.	Some suitable habitat for this species is present within the WVWRF component of the Project area, but the nearest documented occurrence is a historic collection (1960) from approx. 7.6 miles SE of the Project site. Occurrence potential is **low**.
Mentzelia tricuspis	spiny-hair blazing star	None/ None	G4; S2; CNPS: 2B.1	Mojavean Desert scrub. Sandy or gravelly slopes and washes.150-1280 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the only documented occurrence within the 4-quad CNDDB search is a historic collection (1876) from approx. 6.3 miles W of the Project site. Occurrence potential is **low**.
Mesquite Bosque	Mesquite Bosque	None/ None	G3; S2.1		This habitat is **absent** from the Project area.
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/ None	G3G4T3?; S2; CNPS: 2B.2	Coastal dunes, desert dunes, Sonoran Desert scrub. In dunes or sand. -50-400 m.	Some of the environmental requirements for this species are present within the WVWRF component of the Project area, but the nearest documented occurrence is a historic collection (1948) from approx. 4.6 miles W of the Project site. Occurrence potential is **low**.
Neotoma lepida intermedia	San Diego desert woodrat	None/ None	G5T3T4; S3S4; CDFW: SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/ None	G4; S3; CDFW: SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	No suitable roosting habitat for this species exists within the Project area. Occurrence potential is **low**.

Nyctinomops macrotis	big free-tailed bat	None/ None	G5; S3; CDFW: SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	No suitable roosting habitat for this species exists within the Project area. Occurrence potential is **low**.
Ovis canadensis nelsoni	desert bighorn sheep	None/ None	G4T4; S3; CDFW: FP	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Ovis canadensis nelsoni pop. 2	Peninsular bighorn sheep DPS	Endangered/ Threatened	G4T3Q; S1; CDFW: FP	Eastern slopes of the Peninsular Ranges below 4,600 ft elevation. This DPS of the subspecies inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the US-Mexico International Border. Optimal habitat includes steep walled canyons and ridges bisected by rocky or sandy washes, with available water.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Perognathus longimembris bangsi	Palm Springs pocket mouse	None/ None	G5T2; S2; CDFW: SSC	Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes.	Some suitable habitat for this species is present within the WVWRF component of the Project area, but the only documented occurrence (1999) in the 4-quad CNDDB search is approx. 5.8 miles NW of the Project site. Occurrence potential is **low**.
Phrynosoma blainvillii	coast horned lizard	None/ None	G3G4; S3S4; CDFW: SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	The Project is outside of the known range of this species and the nearest documented occurrence is a historic collection (1967) from approx. 6.5 miles NW of the Project area. Occurrence potential is **low**.
Phrynosoma mcallii	flat-tailed horned lizard	None/ None	G3; S2; CDFW: SSC	Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants.	The habitat within the WVWRF component of the Project area is not suitable for this species and the site is outside of the CVMSHCP habitat model for this species. The nearest documented occurrence (1994) is approx. 1.3 miles S of the Project site. Occurrence potential is **low**.
Polioptila californica californica	coastal California gnatcatcher	Threatened/ None	G4G5T2Q; S2; CDFW: SSC	Obligate, permanent resident of coastal sage scrub below 2,500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.

Polioptila melanura	black-tailed gnatcatcher	None/ None	G5; S3S4; CDFW: WL	Primarily inhabits wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, Palo Verde, ironwood, acacia; absent from areas where salt cedar introduced.	No suitable nesting habitat for this species exists within the Project area. Occurrence potential is **low**.
Rana draytonii	California red-legged frog	Threatened/ None	G2G3; S2S3; CDFW: SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No aquatic habitat required by this species exists within the Project area. Species is **absent** from the Project area.
Rana muscosa	southern mountain yellow-legged frog	Endangered/ Endangered	G1; S1; CDFW: WL	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs. to complete their aquatic development.	No aquatic habitat required by this species exists within the Project area. Species is **absent** from the Project area.
Saltugilia latimeri	Latimer's woodland-gilia	None/ None	G3; S3; CNPS: 1B.2	Chaparral, Mojavean Desert scrub, pinyon and juniper woodland. Rocky or sandy substrate; sometimes in washes, sometimes limestone. 120-2200 m.	Some suitable habitat for this species is present within the WVWRF component of the Project area, but the nearest documented occurrence is a historic collection (1950) from approx. 5 miles S of the Project site. Occurrence potential is **low**.
Selaginella eremophila	desert spike-moss	None/ None	G4; S2S3; CNPS: 2B.2	Sonoran Desert scrub, chaparral. Shaded sites, gravelly soils; crevices or among rocks. 225-1570 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Southern Riparian Forest	Southern Riparian Forest	None/ None	G4; S4		This habitat is **absent** from the Project area.
Stemodia durantifolia	purple stemodia	None/ None	G5; S2; CNPS: 2B.1	Sonoran Desert scrub. Sandy soils; mesic sites. 35-385 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Stenopelmatus cahuilaensis	Coachella Valley Jerusalem cricket	None/ None	G1G2; S1S2	Inhabits a small segment of the sand and dune areas of the Coachella Valley, near Palm Springs. Found in the large, undulating dunes piled up at the north base of Mt San Jacinto.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Streptanthus campestris	southern jewelflower	None/ None	G3; S3; CNPS: 1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Open, rocky areas. 605-2590 m.	The Project area is outside the known elevation range for this species and the habitats this species is associated with are not present within the Project area. Occurrence potential is **low**.

Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	None/ None	G5T3; S2; CNPS: 2B.2	Meadows and seeps. Along streams, seepage areas. 60-930 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.
Toxostoma crissale	Crissal thrasher	None/ None	G5; S3; CDFW: SSC	Resident of southeastern deserts in desert riparian and desert wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrowweed, willow.	No suitable nesting habitat for this species exists within the Project area. Occurrence potential is **low**.
Toxostoma lecontei	Le Conte's thrasher	None/ None	G4; S3; CDFW: SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Some moderately-suitable habitat for this species is present within the WVWRF component of the Project area, but the nearest documented occurrence (1984) is approx. 6.3 miles SE of the Project site. Occurrence potential is **low**.
Uma inornata	Coachella Valley fringe-toed lizard	Threatened/ Endangered	G1Q; S1	Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely-spaced desert shrubs.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Vireo bellii pusillus	least Bell's vireo	Endangered/ Endangered	G5T2; S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs Projecting into pathways, usually willow, *Baccharis*, mesquite.	No suitable habitat for this species exists within the Project area. Occurrence potential is **low**.
Xerospermophilus tereticaudus chlorus	Palm Springs round-tailed ground squirrel	None/ None	G5T2Q; S2; CDFW: SSC	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.	Some suitable habitat for this species is present within the WVWRF component of the Project area, but the nearest documented occurrence is a historic collection (1916) from approx. 5 miles S of the Project site. Occurrence potential is **low**.
Xylorhiza cognata	Mecca-aster	None/ None	G2; S2; CNPS: 1B.2	Sonoran Desert scrub. Steep canyon slopes, in sandstone and clay. 20-305 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is **low**.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank**)** attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa.* The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

FIGURES

SOURCE: Google Earth

FIGURE 1

JACOBS

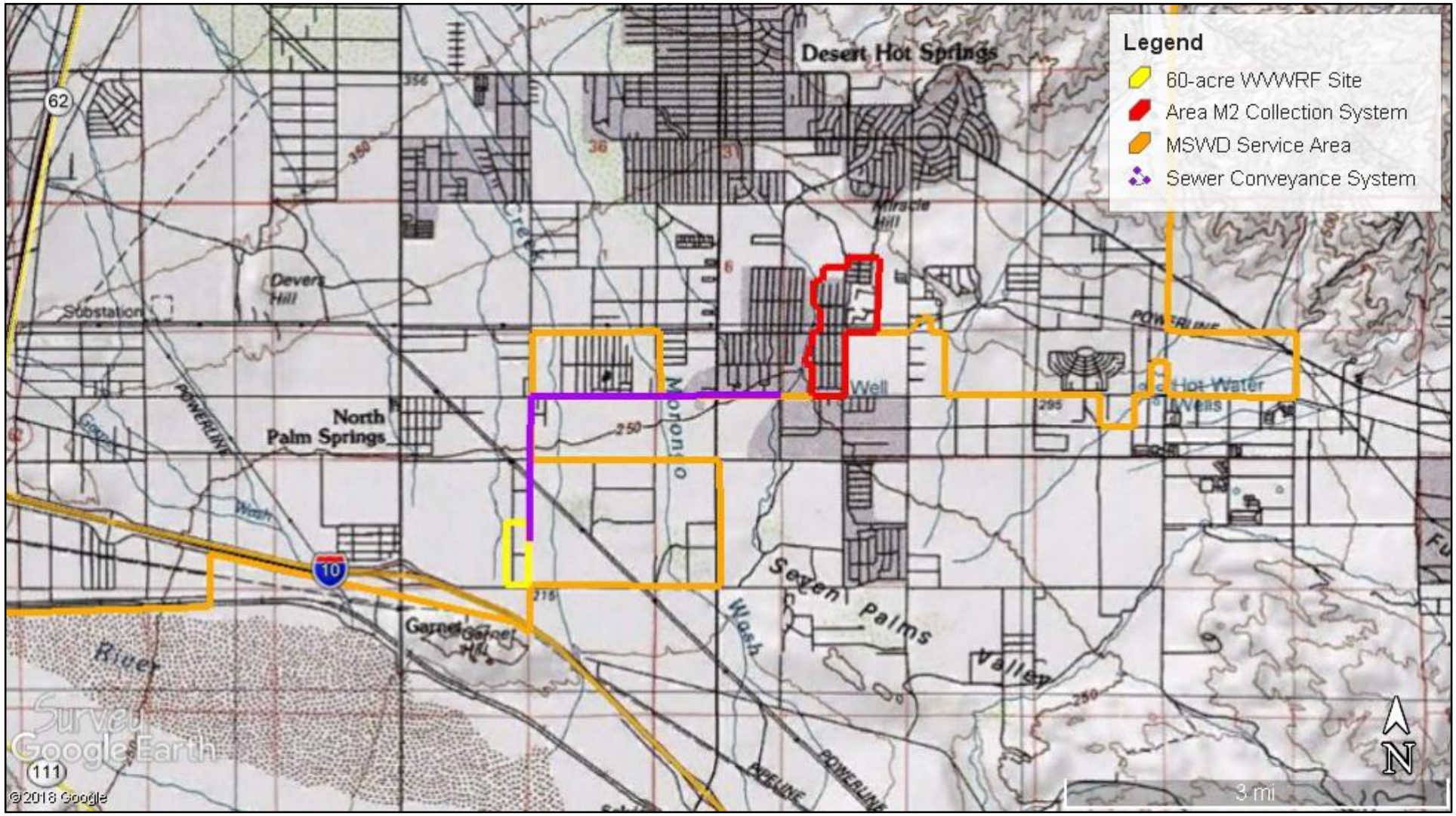
Regional Location

MSWD West Valley Water Reclamation Program

SOURCE: Google Earth

FIGURE 2

MSWD Service Area
MSWD West Valley Water Reclamation Program

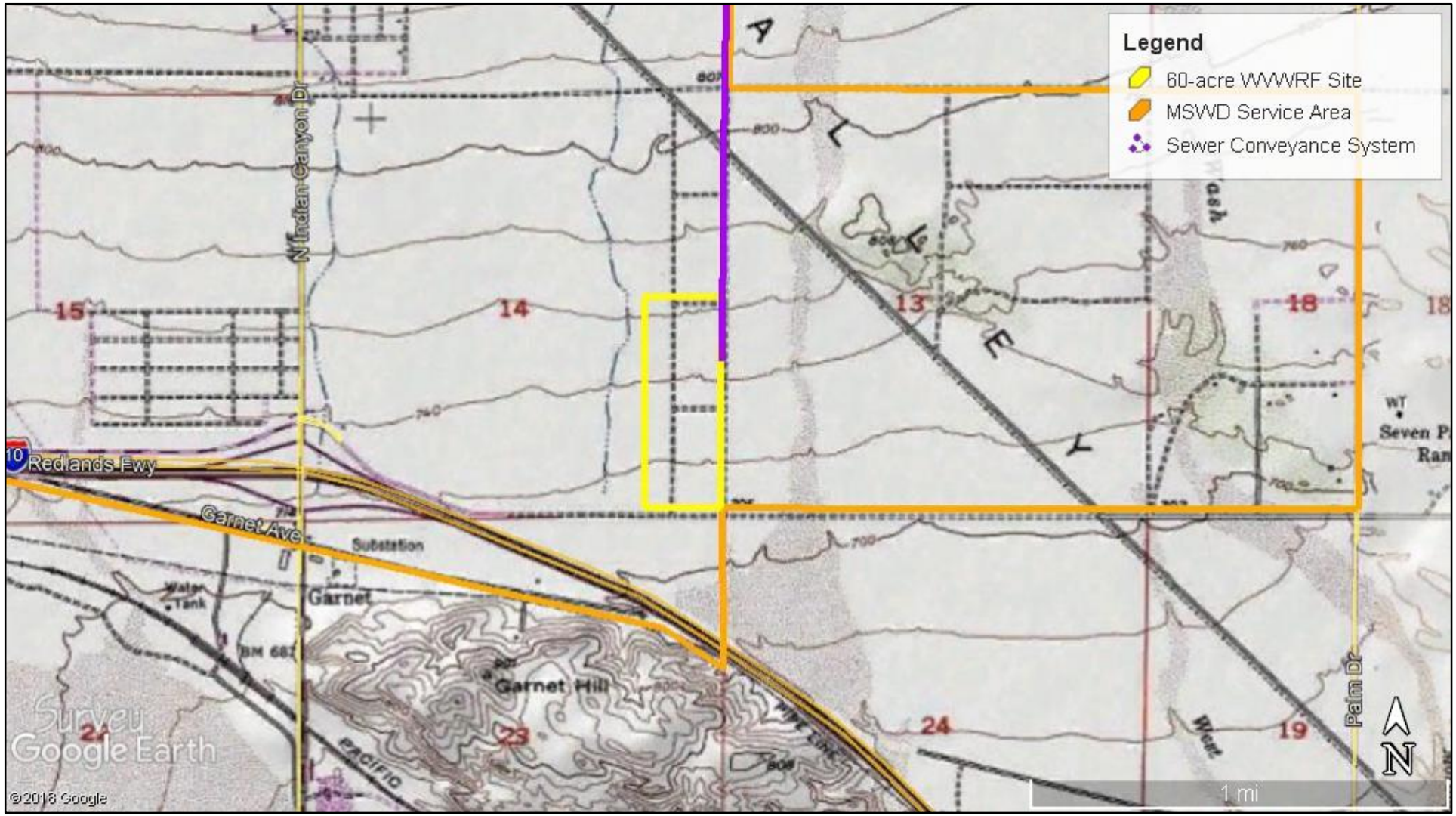


SOURCE: Google Earth

FIGURE 3a

JACOBS

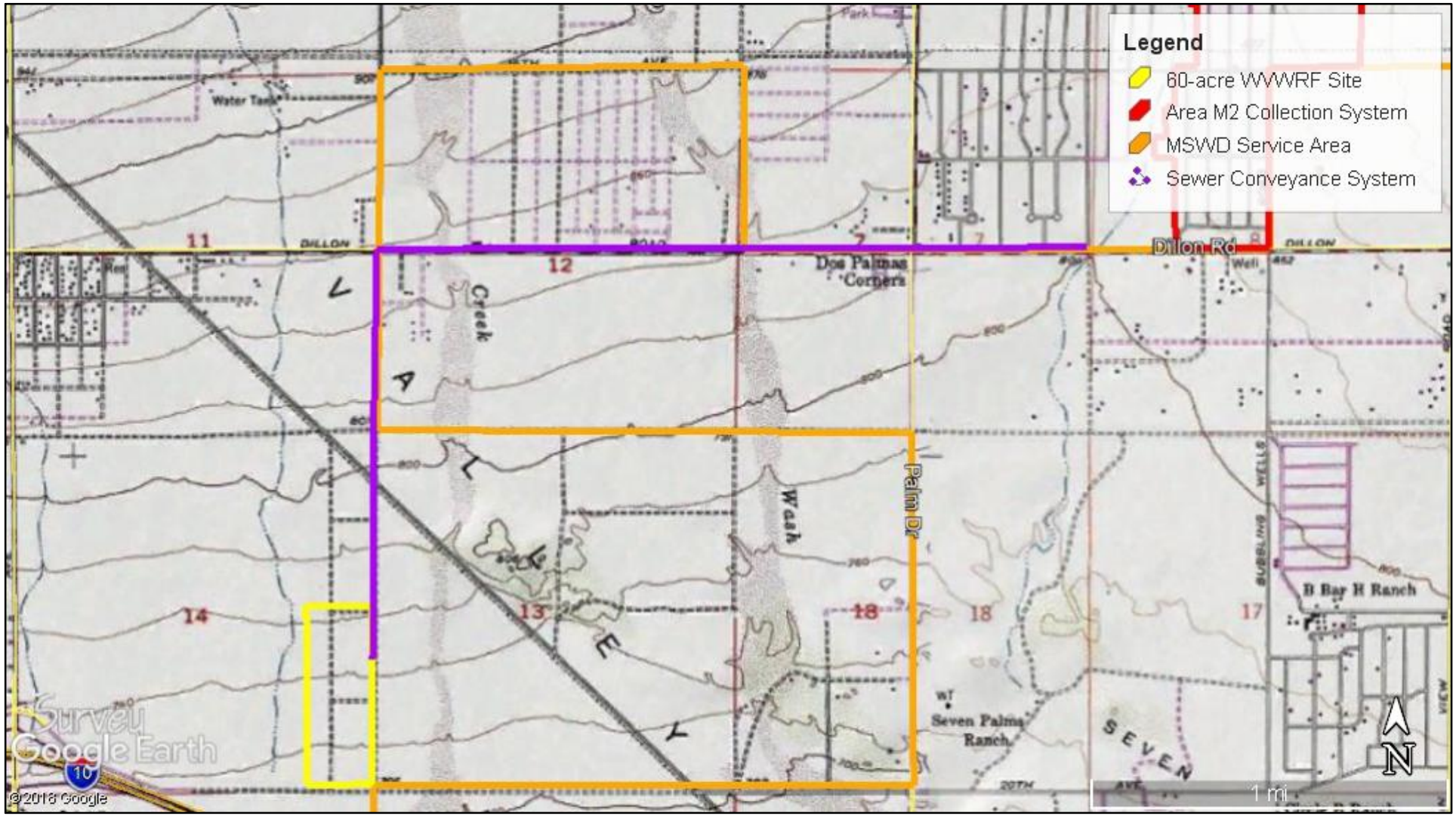
Topographic Map of Site Location
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 3b

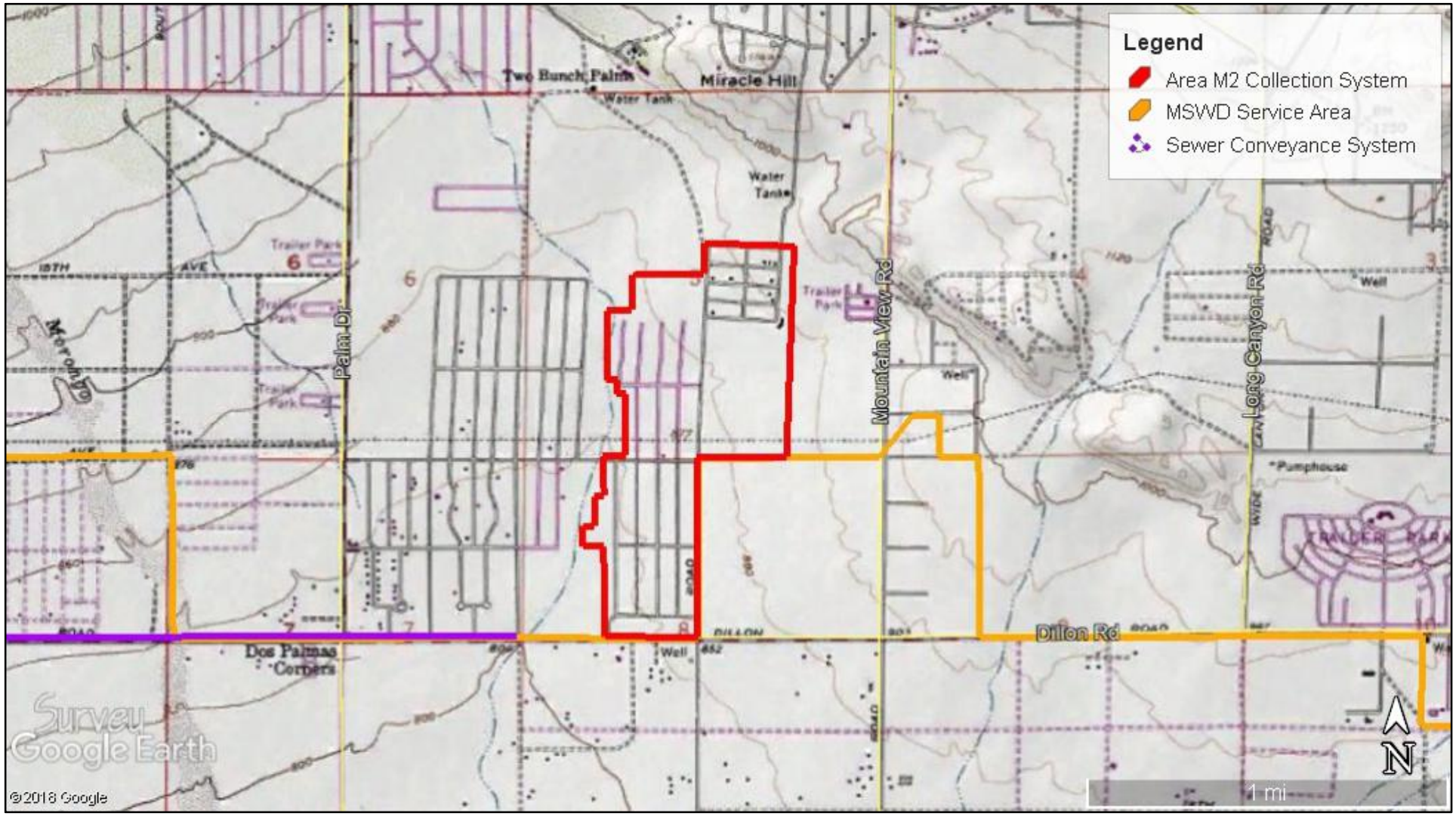
Topographic Map of Site Location – WVWRF Site
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 3c

Topographic Map of Site Location – Conveyance System
MSWD West Valley Water Reclamation Program

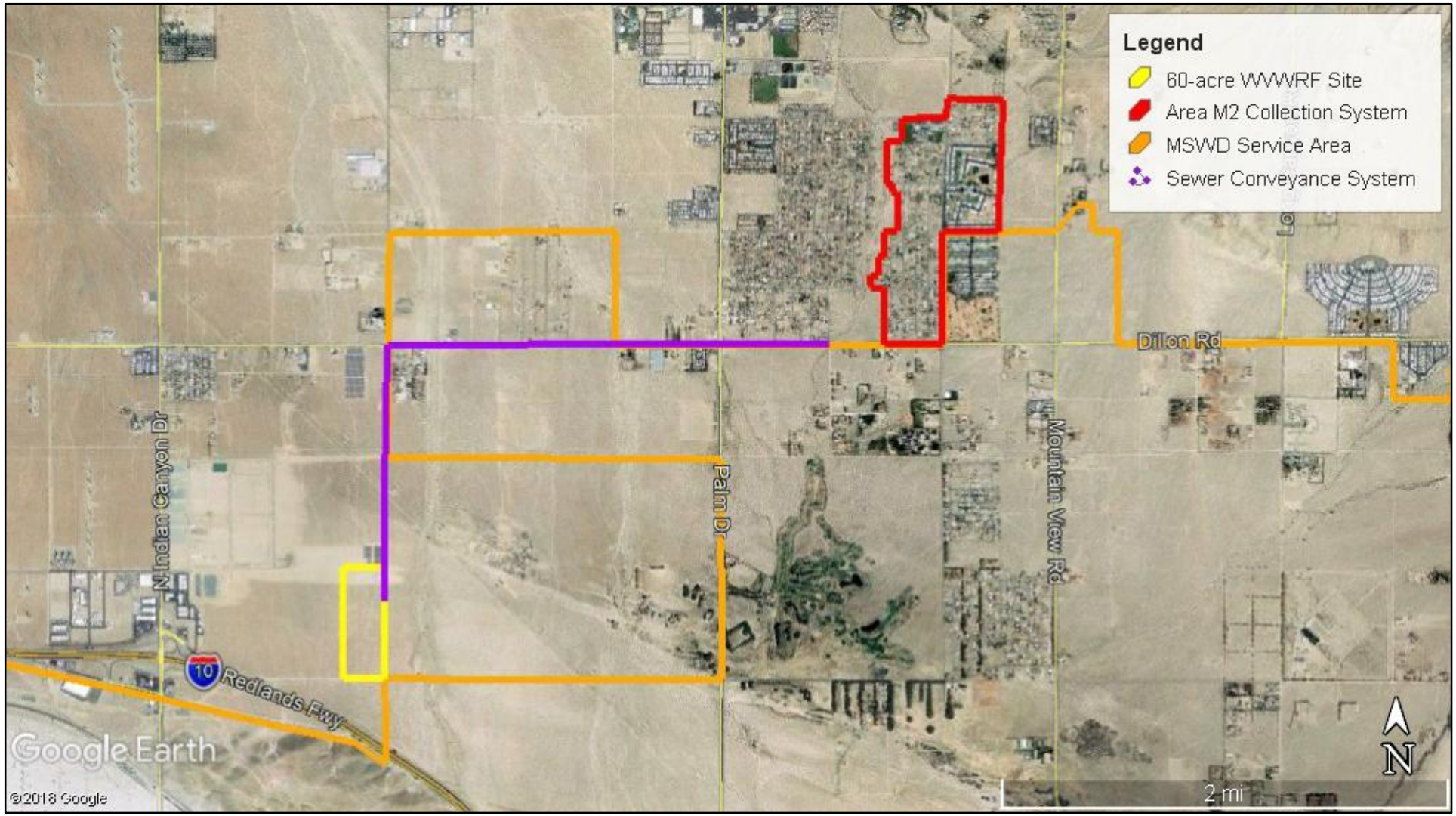


SOURCE: Google Earth

FIGURE 3d

Topographic Map of Site Location – Area M2 Collection System

MSWD West Valley Water Reclamation Program

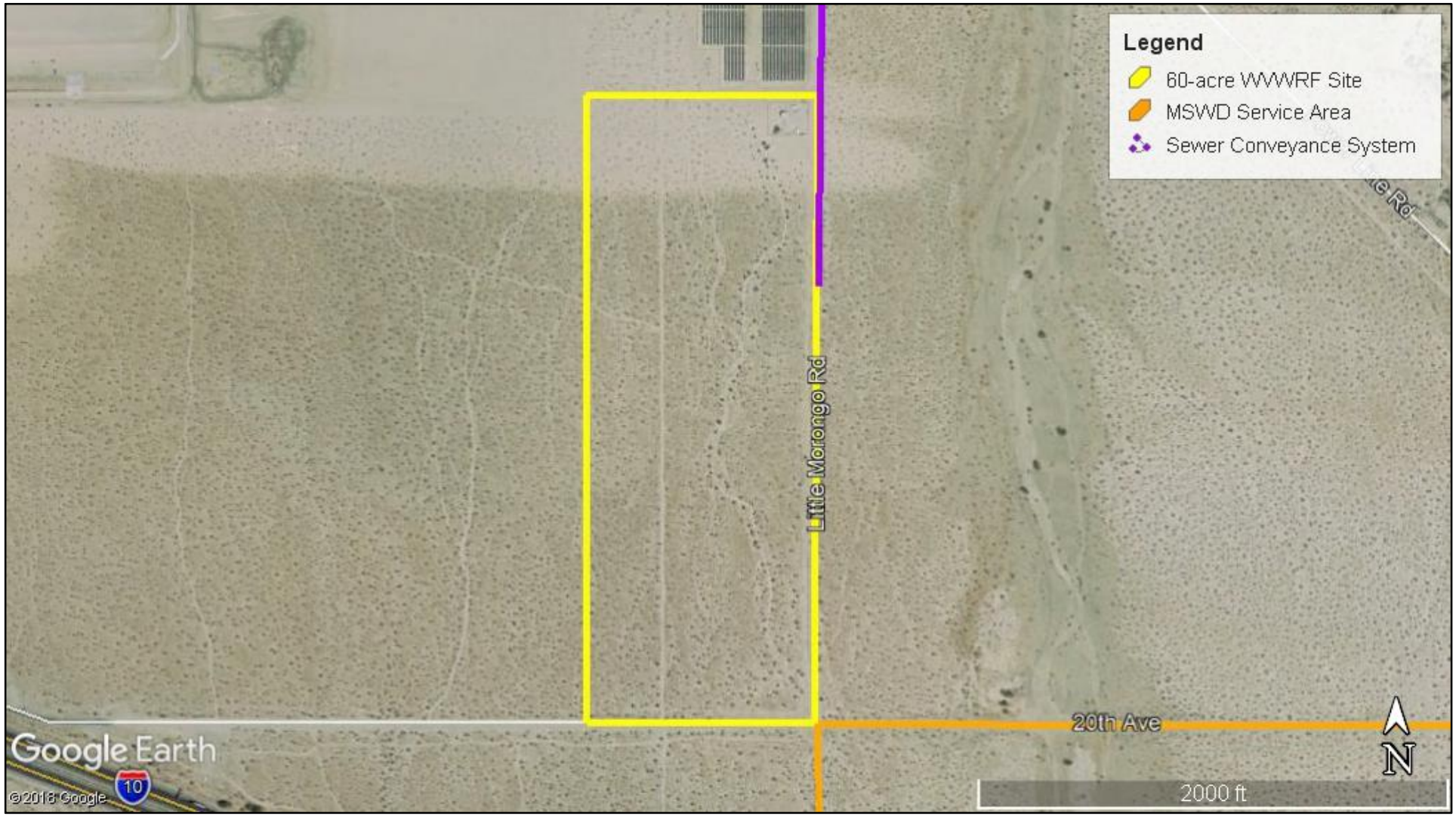


SOURCE: Google Earth

FIGURE 4a

JACOBS

Aerial Photograph of Project Area
MSWD West Valley Water Reclamation Program



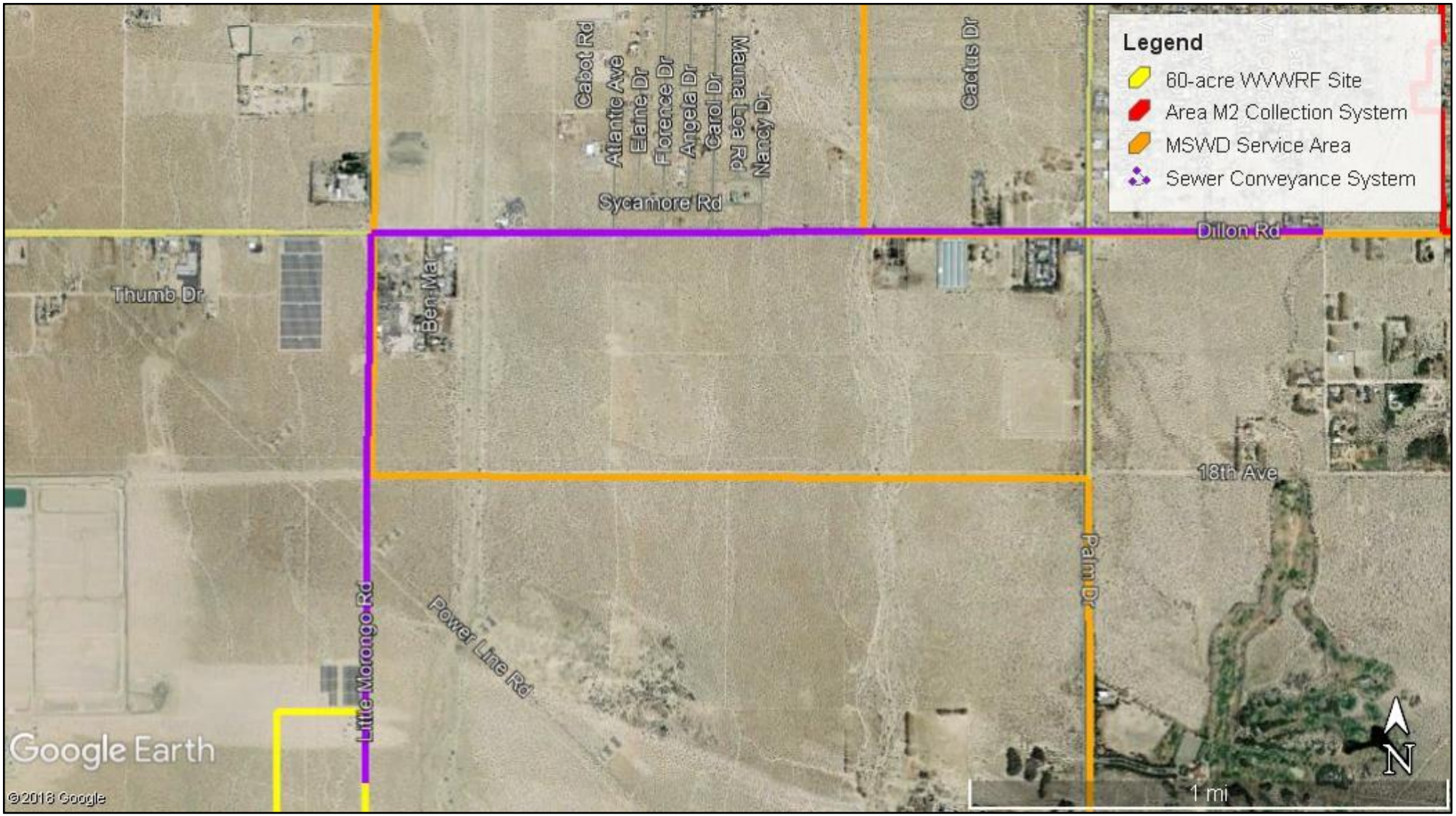
SOURCE: Google Earth

FIGURE 4b

JACOBS

Aerial Photograph of Project Area – WVWRF Site

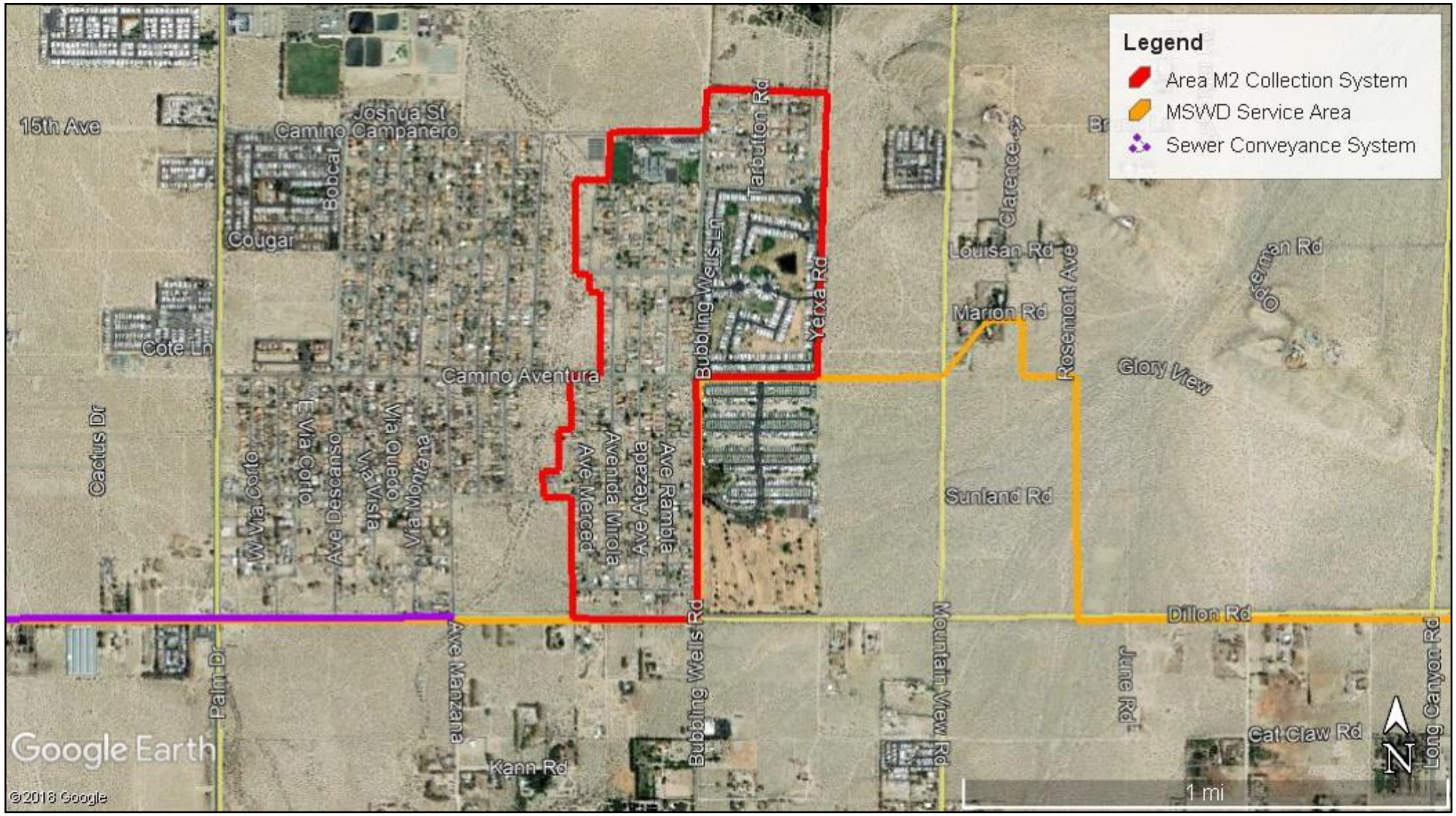
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 4c

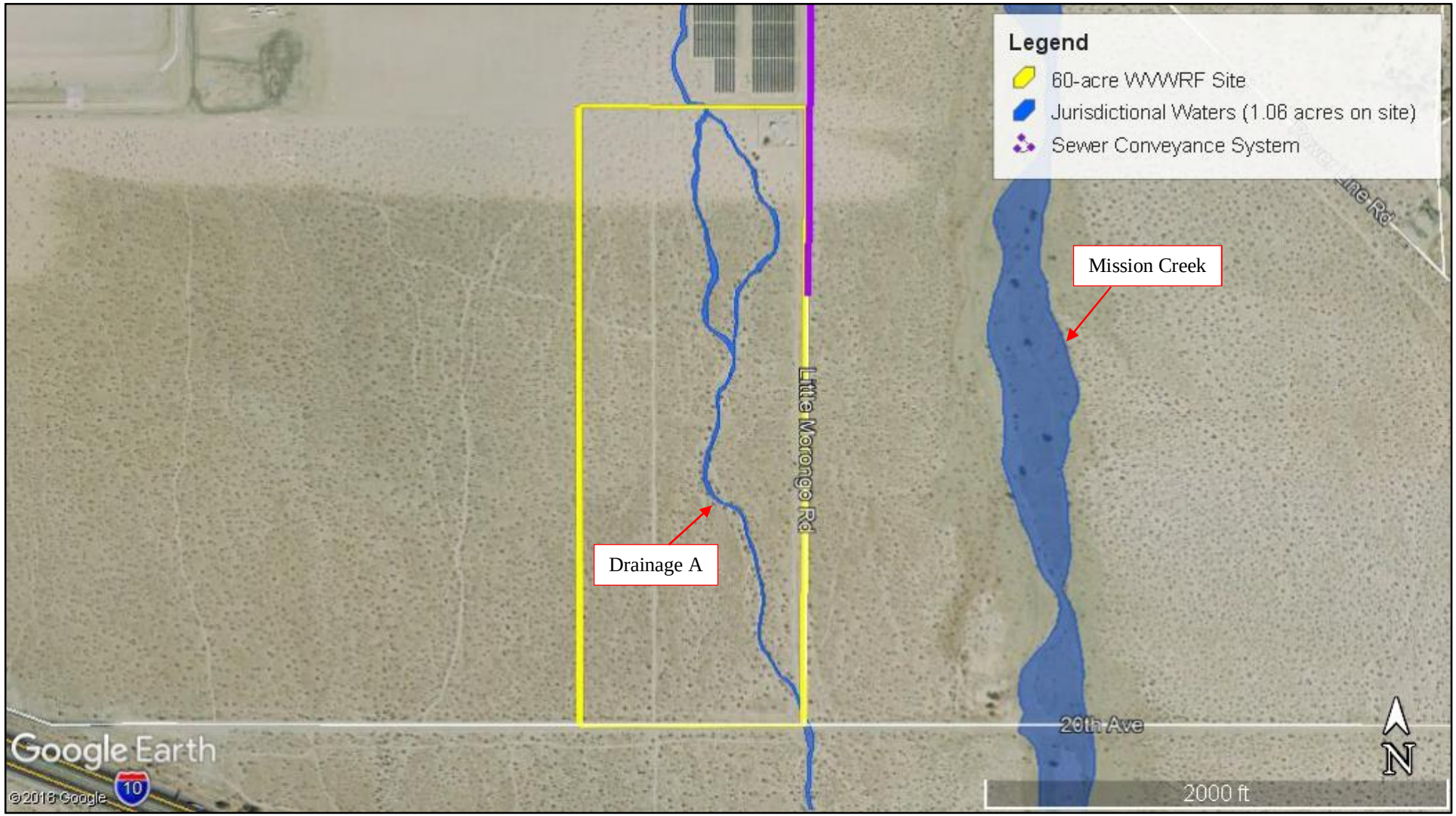
Aerial Photograph of Project Area – Conveyance System
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 4d

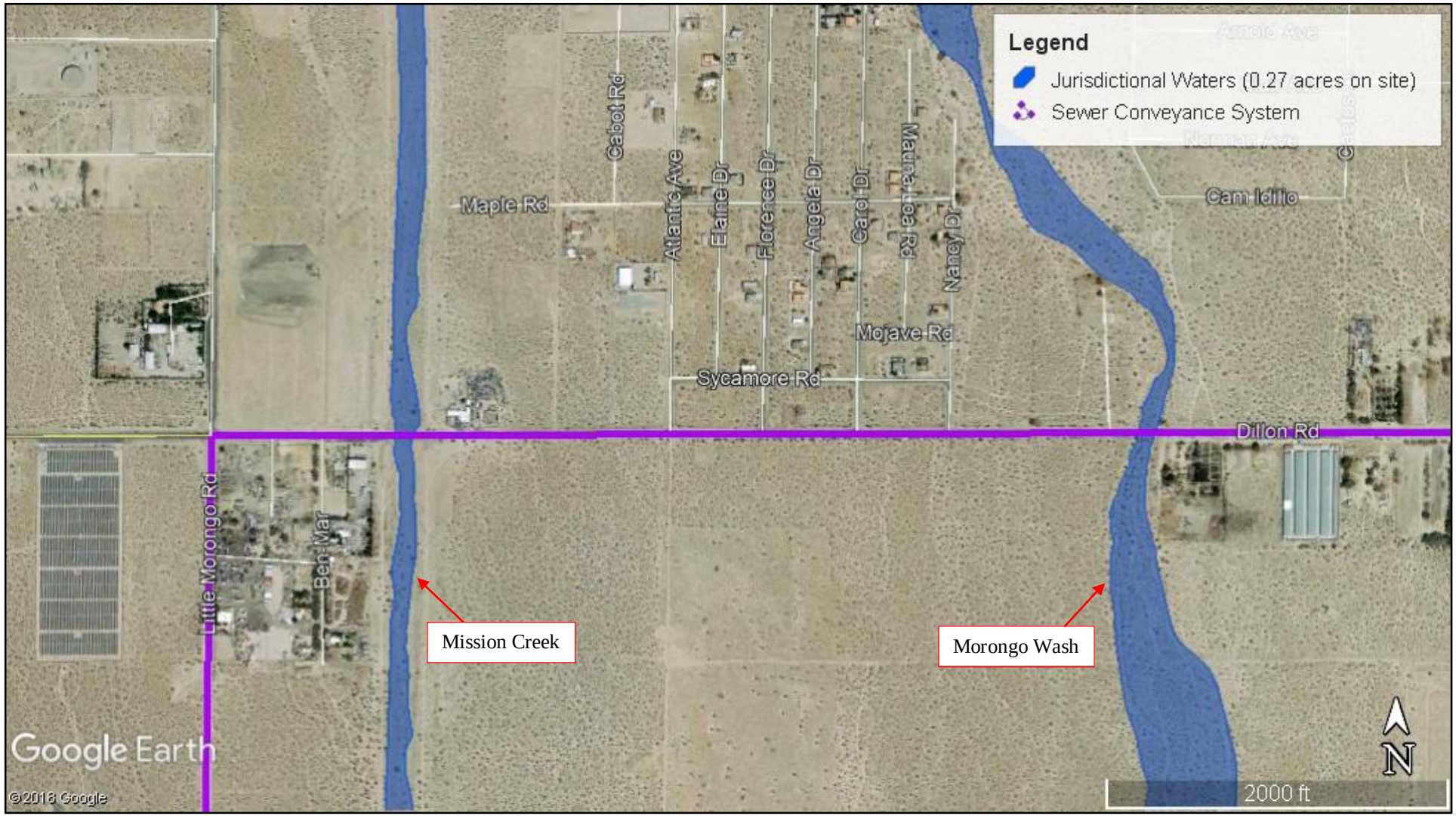
Aerial Photograph of Project Area – Area M2 Collection System
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 5a

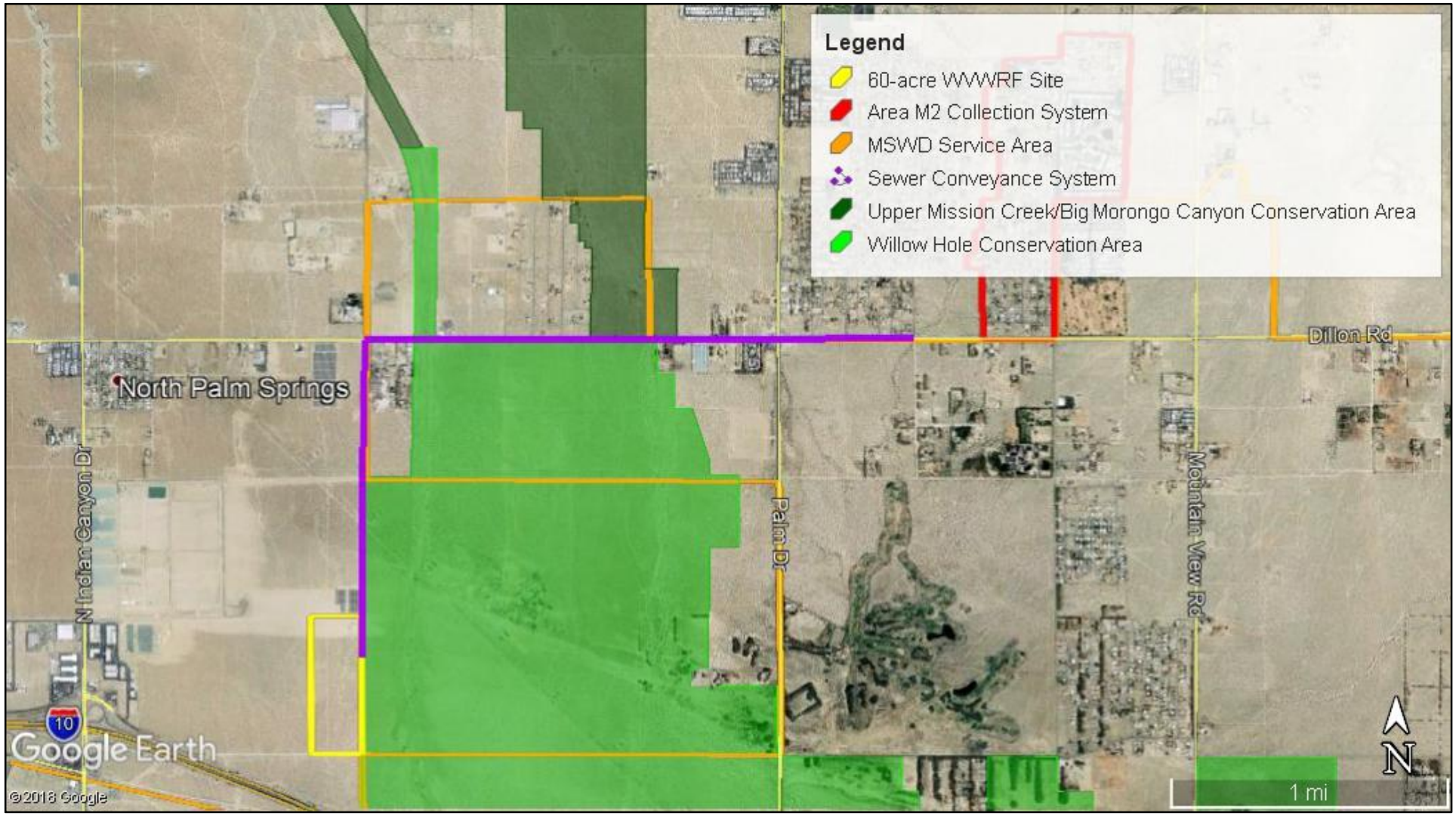
Jurisdictional Features – WVWRF Site
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth

FIGURE 5b

Jurisdictional Features – Conveyance System
MSWD West Valley Water Reclamation Program



SOURCE: Google Earth and CVMSHCP Conservation Area GIS Layer

FIGURE 6

JACOBS

CVMSHCP Conservation Areas

MSWD West Valley Water Reclamation Program

SITE PHOTOGRAPHS

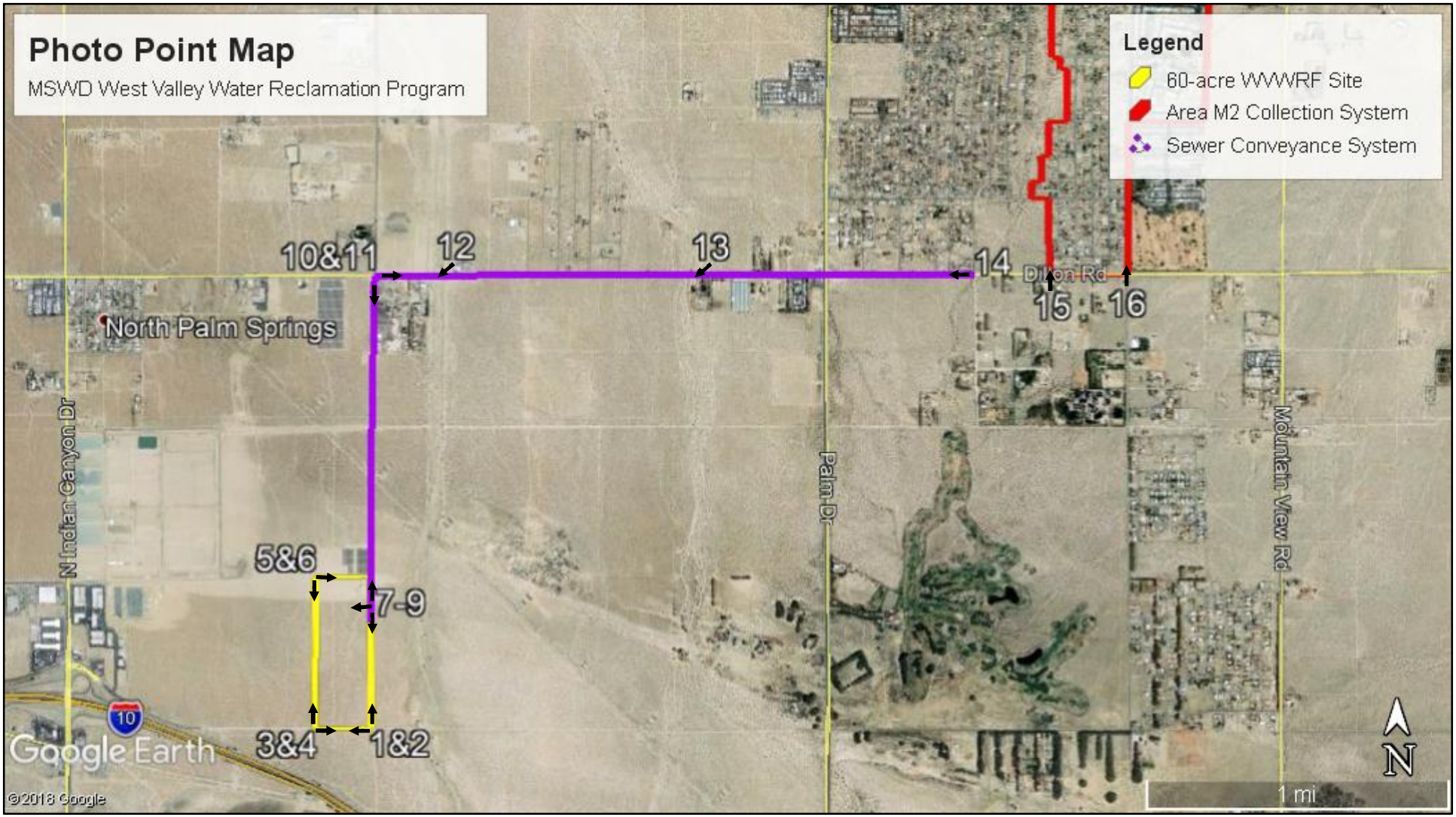


Photo Point Map
MSWD West Valley Water Reclamation Program
Legend
60-acre WWWRF Site
Area M2 Collection System
Sewer Conveyance System
10&11
12
13
14
15
16
Dillon Rd
North Palm Springs
N Indian Canyon Dr
Palm Dr
Mountain View Rd
5&6
7-9
3&4
1&2
10
Google Earth
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Photo 1. Looking north along the eastern boundary of the 60-acre WVWRF site from the southeast corner of the site. Little Morongo Road on the right.

Photo 2. Looking west along the southern boundary of the 60-acre WVWRF site from the southeast corner of the site. 20th Avenue on the left.

Photo 3. Looking east along the southern boundary of the 60-acre WVWRF site from the southwest corner of the site. 20th Avenue on the right.

Photo 4. Looking north along the western boundary of the 60-acre WVWRF site from the southwest corner of the site.

Photo 5. Looking east along the northern boundary of the 60-acre WVWRF site from the northwest corner of the site. District's existing Well 33 in the far ground and adjacent solar development in the upper left corner.

Photo 6. Looking south along the western boundary of the 60-acre WVWRF site from the northwest corner of the site. I-10 in the far ground.

Photo 7. Looking west at the eastern portion of the 60-acre WVWRF site from Little Morongo Road and the southeast corner of the District's Well 33 site (on the left).

Photo 8. Looking south along the eastern boundary of the 60-acre WVWRF site from the southeast corner of the District's existing Well 33 site. Little Morongo Road on the left.

Photo 9. Looking north along the proposed sewer pipeline alignment within Little Morongo Road. District's existing Well 33 site and adjacent solar development on the left.

Photo 10. Looking south along the proposed sewer pipeline alignment within Little Morongo Road from the corner of Little Morongo Road and Dillon Road.

Photo 11. Looking east along the proposed sewer pipeline alignment within Dillon Road from the corner of Little Morongo Road and Dillon Road.

Photo 12. Looking southwest at where the proposed sewer pipeline alignment within Dillon Road crosses Mission Creek.

Photo 13. Looking southwest at where the proposed sewer pipeline alignment within Dillon Road crosses Morongo Wash.

Photo 14. Looking west at where the easternmost end of the proposed sewer pipeline alignment within Dillon Road, from the intersection of Dillon Road and Avenida Manzana.

Photo 15. Looking north at the southwestern corner of Area M2, from the intersection of Dillon Road and Carlos Street.

Photo 16. Looking north at the southeastern corner of Area M2, from the intersection of Dillon Road and Bubbling Wells Road.

Appendix A

REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The purpose of the Clean Water Act (CWA) of 1977 is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the United States Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

Federal Endangered Species Act (ESA)

The federal Endangered Species Act (ESA) of 1973 protects plants and wildlife that are listed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA (USA) prohibits the taking of endangered wildlife, where taking is defined as any effort to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species. The ESA specifies that the USFWS designate habitat for a species at the time of its listing in which are found the physical or biological features "essential to the conservation of the species," or which may require "special Management consideration or protection..." (16 USC § 1533[a][3].2; 16 USC § 1532[a]). This designated Critical Habitat is then afforded the same protection under the ESA as individuals of the species itself, requiring issuance of an Incidental Take Permit prior to any activity that results in "the destruction or adverse modification of habitat determined to be critical" (16 USC § 1536[a][2]).

Interagency Consultation and Biological Assessments

Section 7 of ESA provides a means for authorizing the "take" of threatened or endangered species by federal agencies, and applies to actions that are conducted, permitted, or funded by a federal agency. The statute requires federal agencies to consult with the USFWS or National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. If a Proposed Project "may affect" a listed species or destroy or modify critical

habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the potential effect.

Habitat Conservation Plans

Section 10 of the federal ESA requires the acquisition of an Incidental Take Permit (ITP) from the USFWS by non-federal landowners for activities that might incidentally harm (or "take") endangered or threatened wildlife on their land. To obtain a permit, an applicant must develop a Habitat Conservation Plan that is designed to offset any harmful impacts the proposed activity might have on the species.

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)

The CVMSHCP is a regional multi-agency conservation plan that provides for the long-term conservation of approximately 240,000 acres of open space and 27 plant and animal species in the Coachella Valley. The entire City of Bermuda Dunes lies within the CVMSHCP area. The stated overall goal of the CVMSHCP is, "… to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth." The CVMSHCP balances environmental protection and economic development objectives in the plan area and simplifies compliance with endangered species laws.

The Plan is subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as Conservation Areas that serve as natural habitat for covered species. These areas are identified as Core, Essential, or Other Conserved Habitat for special-status plant, invertebrate, amphibian, reptile, bird, and mammal species, Essential Ecological Process Areas, and Biological Corridors and Linkages. For each Conservation Area, Conservation Objectives and required measures are articulated for conserving Core Habitat for covered species, Essential Ecological Processes necessary to maintain habitat viability, Biological Corridors and Linkages as needed, and the less common Conserved Natural Communities.

Conservation Goals are managed within the Conservation Areas as a Reserve System. The Conservation Goals of the CVMSHCP Reserve System are:

- Represent native ecosystem types or natural communities across their natural range of variation in a system of conserved areas.
- Maintain or restore self-sustaining populations or metapopulations of the species included in the Plan to ensure permanent Conservation so that Take Authorization can be obtained for currently Listed Species (animal species) and Non-listed Species can be covered in case they are listed in the future.
- Sustain ecological and evolutionary processes necessary to maintain the functionality of the conserved natural communities and Habitats for the species included in the Plan.
- Maximize connectivity among populations and avoid Habitat fragmentation within Conservation Areas to conserve biological diversity, ecological balance, and connected populations of Covered Species.
- Minimize adverse impacts from OHV use, illegal dumping, edge effects, exotic species, and other disturbances in accordance with the Management and Monitoring Programs.
- Manage the Conservation Areas adaptively to be responsive to short-term and long-term environmental change and new science.

Under the CVMSHCP, a Take Authorization, except for three of the covered species, is allowed for covered activities in accordance with the federal Endangered Species Act (ESA) and the California Natural Community Conservation Planning Act. Covered activities include development permitted or approved by

local permittees, which includes new Projects approved pursuant to county and city general plans. Take activities are limited within Conservation Areas.

Mitigation for the impacts of development on the covered species and their habitats is through payment of a fee to the City of Coachella which is in turn used by the Coachella Valley Conservation Commission to minimize and mitigate impacts of the Taking and provide for conservation of the covered and non-covered species through the acquisition and maintenance of habitat.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661 to 667e et seq.) applies to any federal Project where any body of water is impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the USFWS and the appropriate state wildlife agency.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (The Eagle Act) (1940), amended in 1962, was originally implemented for the protection of bald eagles (*Haliaeetus leucocephalus*). In 1962, Congress amended the Eagle Act to cover golden eagles (*Aquila chrysaetos*), a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. This act makes it illegal to import, export, take (molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof. The golden eagle, however, is accorded somewhat lighter protection under the Eagle Act than that of the bald eagle.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implements international treaties between the United States and other nations created to protect migratory birds, any of their parts, eggs, and nests from activities, such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code (CFGC).

Executive Orders (EO)

> *Invasive Species – EO 13112 (1999)*: Issued on February 3, 1999, promotes the prevention and introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause through the creation of the Invasive Species Council and Invasive Species Management Plan.
>
> *Migratory Bird – EO 13186 (2001)*: Issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act. Protection and Enhancement of Environmental Quality—EO 11514 (1970a), issued on March 5, 1970, supports the purpose and policies of the National Environmental Policy Act (NEPA) and directs federal agencies to take measures to meet national environmental goals.

Migratory Bird Treaty Reform Act

The Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447) amends the Migratory Bird Treaty Act (16 U.S.C. Sections 703 to 712) such that nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the Act. It defines a native migratory bird as a species present in the United States and its territories as a result of natural biological or ecological processes. This list excluded two additional species commonly observed in the United States, the rock pigeon (*Columba livia*) and domestic goose (*Anser domesticus*).

Birds of Conservation Concern

Birds of Conservation Concern (BCC) is a USFWS list of bird species identified to have the highest conservation priority, and with the potential for becoming candidates for listing as federally threatened or endangered. The chief legal authority for BCC is the Fish and Wildlife Conservation Act of 1980 (FWCA). Other authorities include the FESA, the Fish and Wildlife Act of 1956, and the Department of the Interior U.S Code (16 U.S.C. § 701). The 1988 amendment to the FWCA (Public Law 100-653, Title VIII) requires the Secretary of the Interior, through the USFWS, to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973" (USFWS, 2008a).

State Regulations

California Fish and Game Code Sections 1600 through 1606 of the CFGC

This section requires that a Streambed Alteration Application be submitted to the 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." The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the Department and the applicant is the Streambed Alteration Agreement. Often, Projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

California Endangered Species Act

The California Endangered Species Act (CESA) (Sections 2050 to 2085) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats by protecting "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation." Animal species are listed by the CDFW as threatened or endangered, and plants are listed as rare, threatened, or endangered. However, only those plant species listed as threatened or endangered receive protection under the California ESA.

CESA mandates that state agencies do not approve a Project that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. There are no state agency consultation procedures under the California ESA. For Projects that would affect a species that is federally and State listed, compliance with ESA satisfies the California ESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the California ESA under Section 2080.1. For Projects that would result in

take of a species that is state listed only, the Project sponsor must apply for a take permit, in accordance with Section 2081(b).

Fully Protected Species

Four sections of the California Fish and Game Code (CFGC) list 37 fully protected species (CFGC Sections 3511, 4700, 5050, and 5515). These sections prohibit take or possession "at any time" of the species listed, with few exceptions, and state that "no provision of this code or any other law will be construed to authorize the issuance of permits or licenses to 'take' the species," and that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession.

Bird Nesting Protections

Bird nesting protections (Sections 3503, 3503.5, 3511, and 3513) in the CFGC include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), or Strigiformes (owls).
- Section 3511 prohibits the take or possession of fully protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.

Native Plant Protection Act

The Native Plant Protect Act (NPPA) (1977) (CFGC Sections 1900-1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as endangered or rare and to protect endangered and rare plants from take. CESA (CFGC 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.