Appendix B:
Biological Resources Supporting Information

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B.1 - Adelanto Quick N Clean Car Wash Project Biological Resources Assessment

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Biological Resources Assessment
Highway 395 and Seneca Road Quick N Clean Car Wash
City of Adelanto, San Bernardino County, California

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Date: November 24, 2020

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Table of Contents

List of Exhibits

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SECTION 1: INTRODUCTION

At the request of 3K1 Consulting Services, LLC, (Applicant) FirstCarbon Solutions (FCS) conducted a Biological Resources Assessment (BRA) for an approximately 2.2-acre site located in the City of Adelanto, in San Bernardino County, California, where a proposed Quick N Clean car wash (proposed project) will be developed. The survey was performed at the request of the Applicant to meet compliance with federal, State, and local jurisdictions to determine if development of the proposed project could potentially affect sensitive biological resources located on or adjacent to the site. This report analyzes potential effects on sensitive biological resources and jurisdictional areas associated with the project site.

1.1 - Project Site Location

The proposed project would be located in the greater Victor Valley in the southeastern portion of the western Mojave Desert, which is bordered on the southwest by the San Gabriel Mountains, on the southeast by the San Bernardino Mountains, and the Mojave River to the east (Exhibit 1). The project site is located near the intersection of U.S. Route 395 (Highway 395) and Seneca Road in the City of Adelanto, in San Bernardino County, California (Exhibit 2). The project site is located on the *Adelanto*, California United States Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map. The project site is currently vacant and supports a disturbed desert scrub vegetation community. Regional and local access to the site is provided via Highway 395.

1.2 - Project Description

The Applicant proposes to develop a 4,961-square-foot Quick N Clean Car Wash and appurtenant facilities on an approximately 8.3-acre site, of which the proposed Quick N Clean Car Wash would occupy 1.43 acres. The proposed project would provide a total of 43 parking spaces and would include a 150-foot drive-through vehicle wash tunnel; three drive-through pay stations; 27 vacuum canopies with 25 standard parking stalls, and two American with Disabilities Act (ADA) accessible parking stalls; and paved driveways. The vehicle wash tunnel would be 4,961 square feet. Paved surfaces would total 57,541 square feet. Building setbacks and side yards would be provided around the perimeter of the site. A 10-foot parking setback is proposed adjacent to Highway 395. As shown in Exhibit 3, the drive-thru vehicle wash tunnel would be located on the western end of the site.

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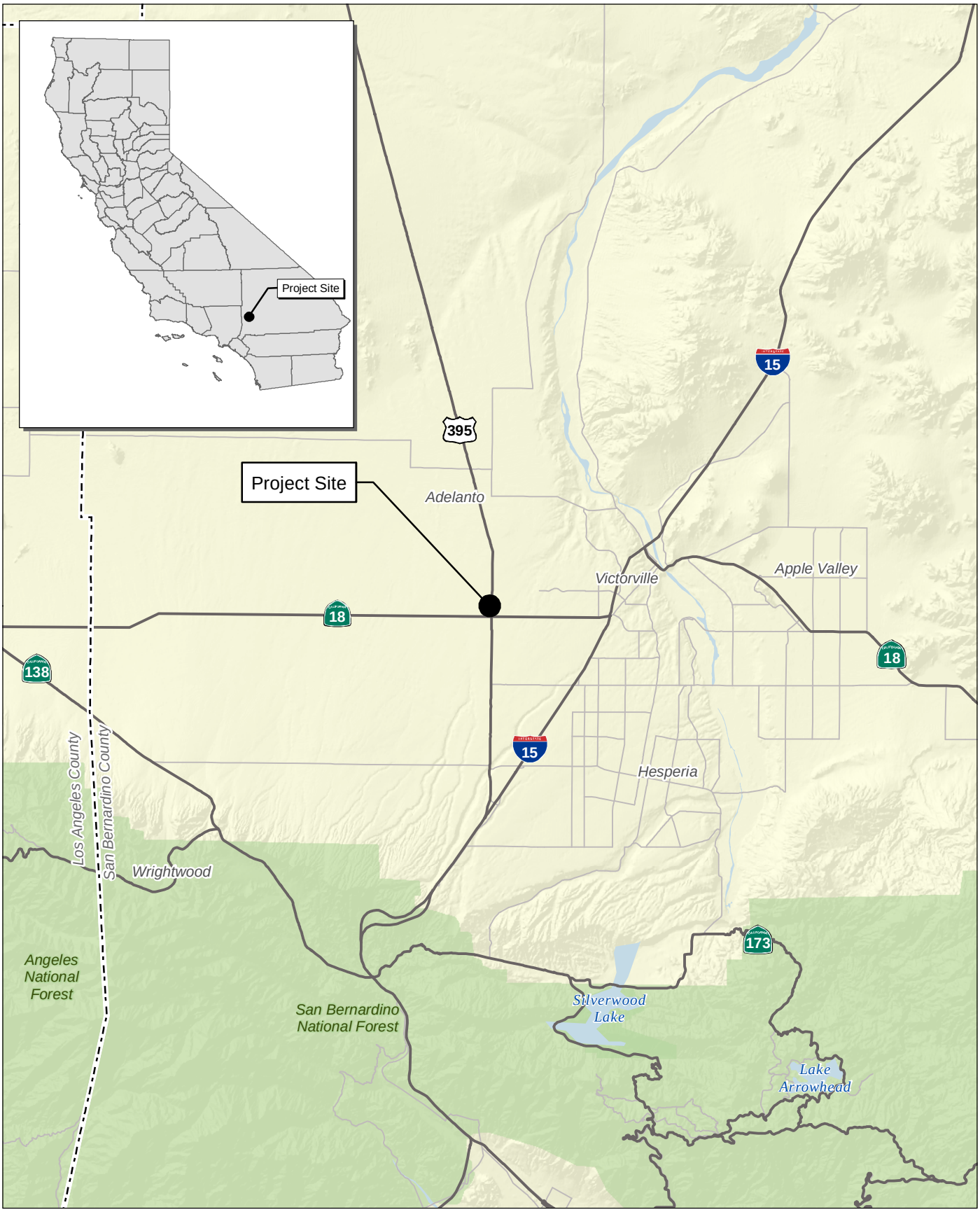

Source: Census 2000 Data, The CaSIL

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Exhibit 1
Regional Location Map

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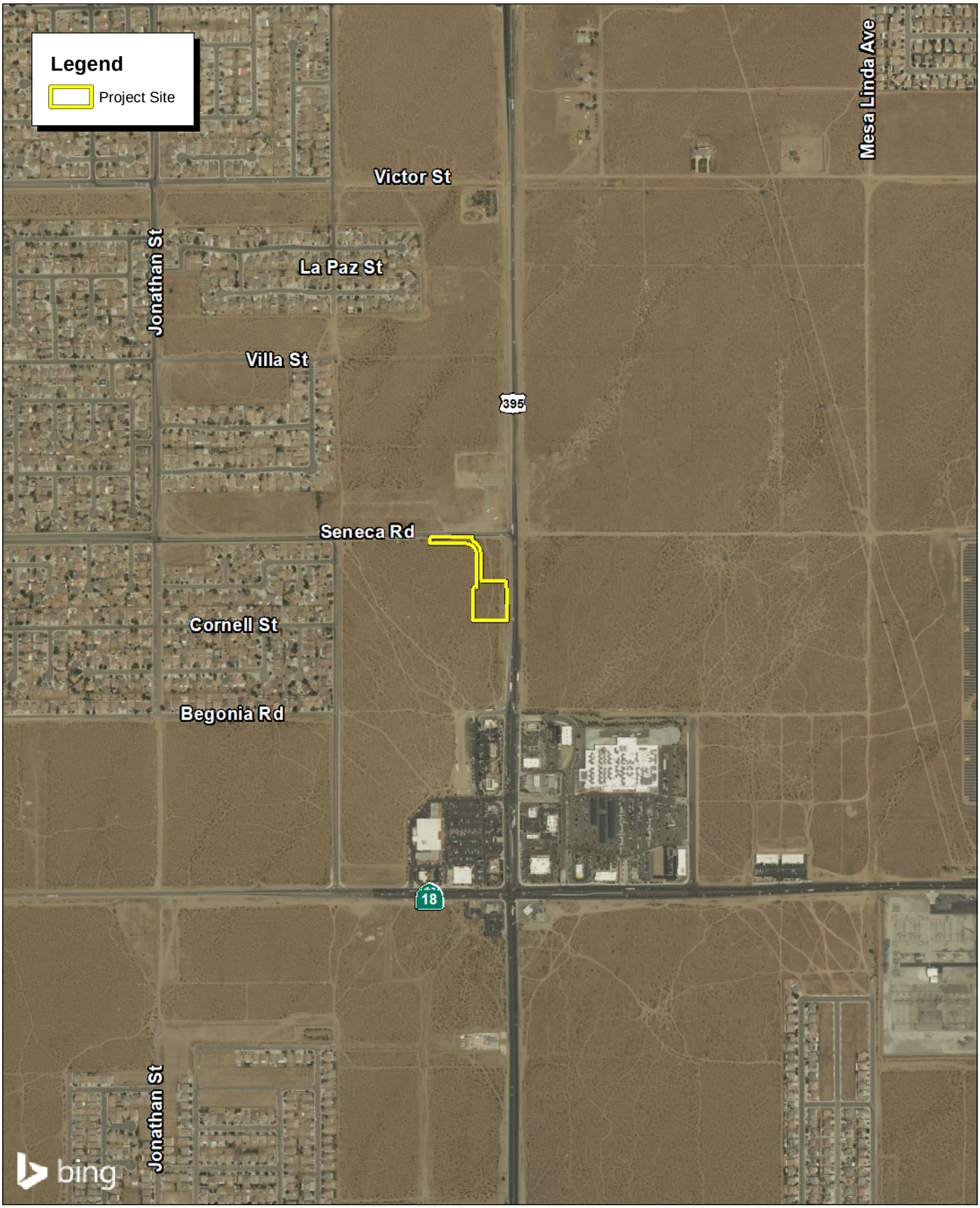

Source: Bing Aerial Imagery.

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1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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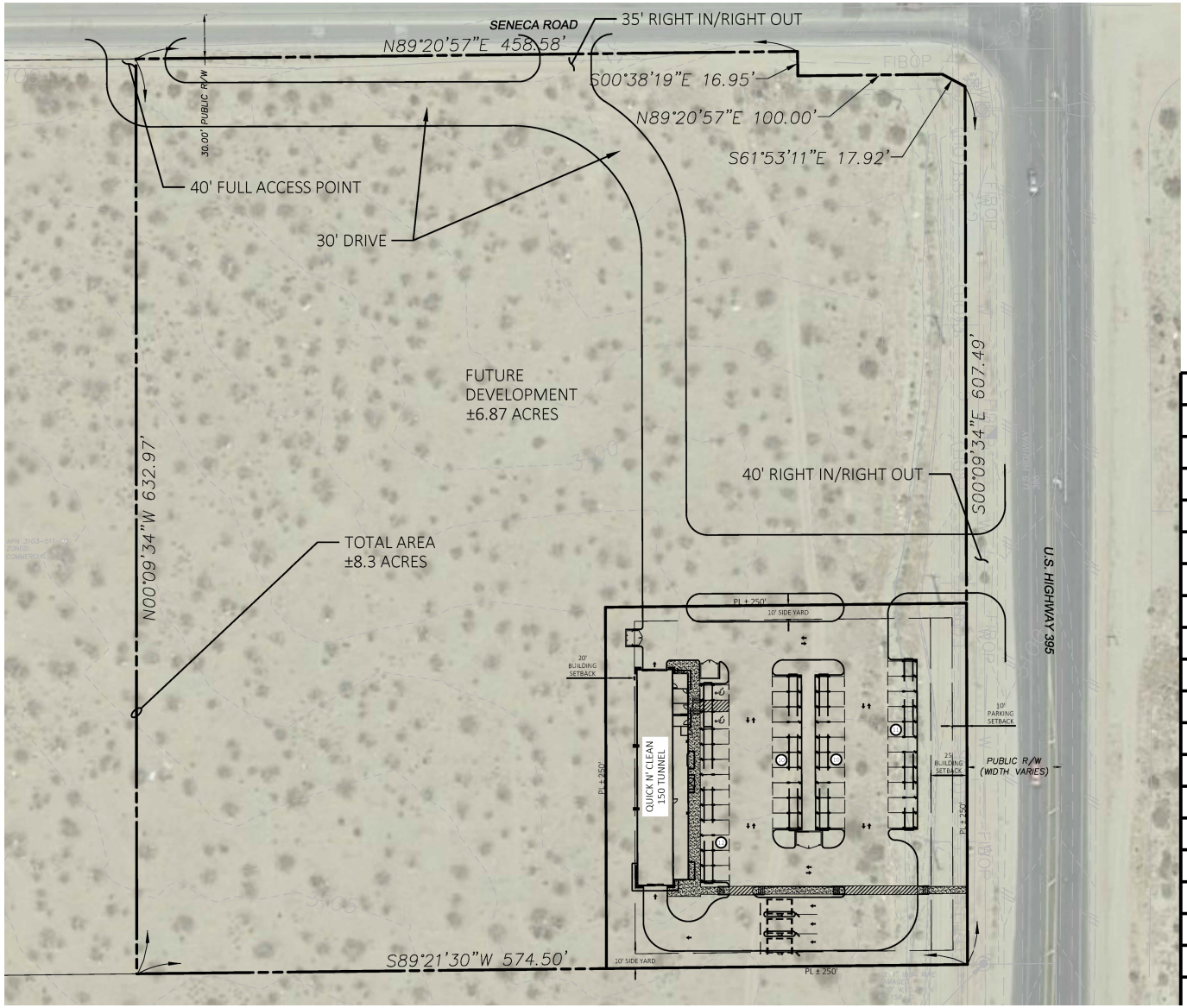

SITE SUMMARY		
PARCEL	ACRES	SQ. FT.
QUICK N CLEAN	1.43±	62,502±
REMAINDER	6.87±	299,188±
TOTAL	8.30±	361,690±
MAX. LOT COVERAGE		NO LIMITATION
PROPOSED LOT COVERAGE		N/A
EXISTING ZONING	C (COMMERCIAL)	
PROPOSED ZONING	C (COMMERCIAL)	
FRONT SETBACK	25' BUILDING/ 10' PARKING	
SIDE SETBACK	25' FROM STREET/ 10' FROM OTHERS	
REAR SETBACK	20' BUILDING	
DESCRIPTION	BUILDING AREA SQ. FT.	
CAR WASH	4,961±	
STALL DIMENSIONS:		
STD:	10.5' X 20' (9' X 20' REQ'D)	
ADA:	12' X 20' (12' X 20' REQ'D)	
PARKING INFORMATION:		
REQUIRED: 3 SPACES PER 1,000 SF-GLA		
PROVIDED: 43 SPACES		

Source: Quick N Clean, 02/21/20.

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Exhibit 3
Site Plan

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Federal Endangered Species Act (FESA). Section 9 of FESA protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." FESA protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the US and other nations devised to protect migratory birds, 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. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

2.1.3 - Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

2.1.4 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions. Normally, the USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the United States. Projects that result in impacts to less than 0.5 acre can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The USACE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Section 401

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following California Environmental Quality Act (CEQA) Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on State or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW, when preparing CEQA documents. The purpose is to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to

identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Sections 2050 through 2098 of the Fish and Game Code outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the Fish and Game Code prohibits the taking of plants and animals listed under the CESA. Section 2081 established an incidental take permit program for state-listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

The CDFW also maintains lists of "Species of Special Concern" that serve as species "watch lists." The CDFW has identified many Species of Special Concern. Species with this status have limited distribution or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and thereby warrant specific protection measures.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically be considered under CEQA.

Sections 3500 to 5500 of the Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as

scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Section 3503.5 of the Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. "Take" of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Section 1602 of the Fish and Game Code requires any entity to notify the CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code § 13050(e)).

2.2.5 - California Department of Fish and Wildlife Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened. In addition to Species of Special Concern, the CDFW identifies animals that are tracked by the California Natural Diversity Database (CNDDB) but warrant no federal interest and no legal protection. These species are identified as California Special Animals.

2.2.6 - California Native Plant Society

The CNPS maintains a rank of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed Extinct in California
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which we need more information—A Review List
- **Rank 4:** Plants of limited distribution—A Watch List

All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, potential impacts to these species or their habitats should be analyzed during the preparation of environmental documents relating to CEQA, as they may meet the definition of Rare or Endangered under CEQA Guidelines Section 15380 criteria.

2.2.7 - Habitat Conservation Plan

The proposed project does not lie within the boundaries of any adopted Habitat Conservation Plan (HCP) Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

2.2.8 - Regional and Local Laws, Ordinances, and Codes

Adelanto Municipal Code

The City of Adelanto Municipal Code requires that projects implement General Plan policies regarding protection and conservation of beneficial rare and endangered plants and animal resources and their habitats. Chapter 17.57 (Biotic Resources) of the Municipal Code includes the following requirements:

- **Section 17.57.030: Biological Resources Report Required:** Requires a biotic resources study to mitigate impacts to protected plants, wildlife, and their habitats.
- **Section 17.57.040: Plant Protection and Management:** Requires relocation and monitoring of Joshua trees.

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SECTION 3: METHODS

3.1 - Literature Review

The literature review provides a baseline from which to evaluate the biological resources potentially occurring on the project site, as well as the surrounding area.

3.1.1 - Existing Documentation

As part of the literature review, an FCS Biologist examined existing environmental documentation for the project site and vicinity. This documentation included biological studies for the area; literature pertaining to habitat requirements of special-status species potentially occurring in the project vicinity; and federal register listings, protocols, and species data provided by the USFWS and CDFW. These and other documents are cited within this report.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current USGS 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.[1] Information obtained from the review of the topographic maps included elevation range, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking, and Environmental Results System (WATERS).[2] Aerial photographs provide a perspective of the most current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area.[3] These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish if soil conditions on-site are suitable for any special-status plant species.

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1 United States Geological Survey (USGS). 2020. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed July 24, 2020.

2 United States Environmental Protection Agency (EPA). 2020. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed July 24, 2020.

3 Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed July 24, 2020.

3.1.4 - Special-Status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the general project vicinity. The list was based on a search of the CDFW CNDDB, a special-status species, and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California database for the *Adelanto,* California USGS 7.5-minute Topographic Quadrangle Map and the surrounding eight quadrangles (*Shadow Mountains, Victorville NW, Helendale, Shadow Mountains SE, Victorville, Phelan, Baldy Mesa, and Hesperia*). To determine which special-status species have the greatest potential to occur on the project site, a query of species within 5 miles was implemented.[4,5]

The CNDDB Biogeographic Information and Observation System (BIOS 5) database was used to determine the distance between known recorded occurrences of special-status species and the project site.[6]

3.1.5 - Trees

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed any applicable City and County ordinances pertaining to tree preservation and protective measures and their tree replacement conditions or permits required.

3.1.6 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed EPA WATERS and aerial photography to identify any potential natural drainage features and water bodies.[7] In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to State and federal regulatory authority as "waters of the United States and/or State." A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities, to aid in determining if a formal delineation of waters of the United States or State is necessary.

3.2 - Field Survey

FCS Senior Biologist, Michael Tuma, and FSC Biologist, Alec Villanueva, conducted the reconnaissance-level field survey of the project site on July 2, 2020. The objective of the survey was not to extensively search for every species occurring within the project site, but to ascertain general site conditions and identify potentially suitable habitat areas for various special-status plant and wildlife species. Special-status or unusual biological resources identified during the literature review

[4] California Department of Fish and Wildlife (CDFW). 2020. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 24, 2020.

[5] California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed July 24, 2020.

[6] California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 24, 2020.

[7] United States Environmental Protection Agency (EPA). 2020. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed July 24, 2020.

were ground-truthed during the reconnaissance-level survey for mapping accuracy. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species. The FCS Biologists characterized the biological conditions on the project site and within a 500-foot buffer around the project site. The FCS Biologists walked the entire project site and a small portion of the 500-foot buffer—the drainage along Highway 395 south of the project site. The remainder of the 500-foot buffer area was on adjacent private properties, and the FCS Biologists scanned these areas with binoculars.

3.2.1 - Vegetation

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. This included a determination of whether Joshua trees (*Yucca brevifolia*) occur on the project site. Uncommon and less familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.[8,9] Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.[10] Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.0. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat types are based on Manual of California Vegetation and cross-referenced with the CDFW Natural Communities List.[11,12]

3.2.2 - Wildlife

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to potentially occur within the project site.[13] Appropriate field guides were used to assist with species identification during surveys, such as Peterson, Reid, and Stebbins.[14,15,16] Online resources such as eBird and California Herps were consulted as necessary. [17,18]

[8] Jepson Flora Project (eds.) 2020. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/. Accessed on July 24, 2020.
[9] Calflora. 2020. Calflora: Information on California plants for education, research, and conservation. Website: http://www.calflora.org/. Accessed July 24, 2020.
[10] Baldwin, B. et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).
[11] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.
[12] California Department of Fish and Wildlife (CDFW). 2020. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed July 24, 2020
[13] California Department of Fish and Wildlife (CDFW). 2020. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 24, 2020.
[14] Peterson, T.R. 2010. A Field Guide to Birds of Western North America, 4th Edition. Boston: Houghton Mifflin Harcourt.
[15] Reid, F. 2006. A Field Guide to Mammals of North America, 4th Edition. Boston: Houghton Mifflin Harcourt.
[16] Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Boston: Houghton Mifflin Harcourt.
[17] eBird. 2020. Online bird occurrence database. Website: http://ebird.org/content/ebird/. Accessed: July 24, 2020.
[18] California Herps. 2020. A Guide to the Amphibians and Reptiles of California. Website: http://www.californiaherps.com/ Accessed July 24, 2020.

3.2.3 - Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the reconnaissance-level survey. The scope of the biological resource assessment did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Rather, the focus of this study was to determine whether a change in land use at the project site could have significant impacts on the regional movement of wildlife. Conclusions are based on the information compiled during the literature review, including aerial photographs, USGS topographic maps and resource maps for the vicinity; the field survey; and professional experience with the desired topography, habitat, and resource requirements of the special-status species potentially utilizing the project site and vicinity.

SECTION 4: RESULTS

This section summarizes the results of the literature search, database review, and reconnaissance-level survey conducted by FCS. The reconnaissance-level field survey of the project site and 500-foot area was conducted on July 2, 2020, by FCS Senior Biologist, Michael Tuma and FSC Biologist, Alec Villanueva. The survey was conducted between 6:00 a.m. and 7:30 a.m. Weather conditions during the field survey were clear skies with light gusts of wind and a temperature of 65°F (degrees Fahrenheit).

4.1 - Environmental Setting

The proposed project is located on an undeveloped but highly disturbed parcel of land. Lands surrounding the project site include both undeveloped and developed lands (Appendix A: Site Photographs, Exhibit 2). Development on surrounding parcels included a residential subdivision, shopping centers, city streets, and a firework stand. Several anthropogenic disturbances were evident on the project site and its 500-foot buffer area, including several dirt roads that bisect the site and provide human access, small dirt mounds located on the western side of the project site that indicated prior ground disturbance, trash dumping, wind-blown waste originating from Highway 395, and disturbances to soils and vegetation due to off-highway vehicle recreation. The amount of recently deposited trash, fresh human footprints, and bicycle tracks on and adjacent to the project site indicated that the site is regularly accessed by humans living in the vicinity.

A query of the USFWS Information for Planning and Consultation System (IPaC) determined that the project is not located within designated Critical Habitat for any federally listed species, nor is the project site located in a National Wildlife Refuge.[19] According to the California NCCP program website, the project site is not located within an NCCP or HCP.[20]

4.1.1 - Topography

The project site is relatively flat and sloping slightly towards the north surrounded by relatively flat areas. The project site is approximately 2,871 feet (875 meters) above mean sea level.

4.1.2 - Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) depicts all soil types within the project site. The WSS indicates that the soils on the site consist entirely (2.2 acres) of Cajon Sand (Exhibit 4).[21] The Cajon series consists of very deep, somewhat excessively drained soils with negligible to low runoff and rapid permeability. Cajon soils are formed in sandy alluvium from dominantly granitic rocks and occur on alluvial fans, fan aprons, fan skirts, inset fans and river terraces.[22]

[19] United States Fish and Wildlife Service (USFWS). 2020. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed June 24, 2020

[20] California Department of Fish and Wildlife (CDFW). 2020. California Natural Community Conservation Planning (NCCP) Program. Website: https://wildlife.ca.gov/conservation/planning/NCCP. Accessed June 24, 2020

[21] Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed June 24, 2020.

[22] Natural Resources Conservation Service. 2020. Official Soil Series Descriptions. United States Department of Agriculture (USDA).

4.2 - Vegetation Communities and Land Cover

One natural vegetation community, creosote bush–white bursage scrub, dominates the project site. Disturbed, bare areas that do not support natural vegetation communities are also present on the project site, including several trails and denuded areas adjacent to Seneca Road and Highway 395. There is a disturbed ephemeral drainage that parallels Highway 395 and bisects the project site. Developed areas are found within the 500-foot buffer area (Exhibit 5).

4.2.1 - Creosote Bush–White Bursage Scrub—1.71 Acres

Most of the project site is dominated by creosote bush–white bursage scrub vegetation community. This vegetation community is characterized by a shrub canopy dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Other species that may be found in this community in the vicinity of the project site include cheesebush (*Ambrosia salsola*), fourwing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*), allscale saltbush (*Atriplex polycarpa*), sweetbush (*Bebbia juncea*), California croton (*Croton californicus*), silver cholla (*Cylindropuntia echinocarpa*), branched pencil cholla (*Cylindropuntia ramosissima*), brittlebush (*Encelia farinosa*), Acton encelia (*Encelia actoni*), ephedra (*Ephedra* spp.), rubber rabbitbrush (*Ericameria nauseosa*), California buckwheat (*Eriogonum fasciculatum*), winterfat (*Krascheninnikovia lanata*), Anderson thornbush (*Lycium andersonii*), Mojave indigo bush (*Psorothamnus arborescens*), bladdersage (*Scutellaria mexicana*), and Joshua tree. This vegetation community can be found in desert washes and rills, alluvial fans, bajadas, valleys, basins, upland slopes, mesas, and erosional highlands. Soils are well-drained, alluvial, colluvial, sandy, and sometimes underlain by a hardpan that may be calcareous, igneous and/or covered with desert pavement.[23]

On the project site, this community was degraded due to several anthropogenic disturbances. The community was dominated by creosote bush and white bursage persisted in areas that were less disturbed. Other shrubs, including fourwing saltbush, allscale saltbush, rubber rabbitbrush, and winterfat were present in lower numbers. The understory was dominated by non-native annual species, including Sahara mustard (*Brassica tournefortii*), prickly Russian thistle (*Salsola tragus*), common sow thistle (*Sonchus oleraceus*), red brome (*Bromus madritensis* ssp. *rubens*), cheatgrass (*Bromus tectorum*), redstem filaree (*Erodium cicutarium*), and Mediterranean grass (*Schismus barbatus*). Other native, weedy, annual species included telegraph weed (*Heterotheca grandiflora*) and common horseweed (*Conyza canadensis*). Other herbaceous native species included Booth's desert primrose (*Eremothera boothii* ssp. *desertorum*), desert woollystar (*Eriastrum eremicum*), bristly fiddleneck (*Amsinckia tesellata*), and a pepperweed (*Lepidium* sp.).

4.2.2 - Disturbed—0.38 Acre

Disturbed land is classified as areas that have been physically disturbed by previous human activities and are no longer recognizable as a native or naturalized vegetation association but continues to retain a soil substrate. Vegetation present in disturbed areas is nearly exclusively composed of non-

Website: http://www.nrcs.usda.gov/. Accessed June 24, 2020.

[23] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.

native plant species such as non-native annual species or ornamentals. Examples of disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home-sites.

On the project site, disturbed areas were observed along the road shoulder bordering Highway 395 and Seneca Road, and several dirt roads that bisected the project site. These areas supported sparse cover by annual weed species, including prickly Russian thistle, telegraph weed, common sow thistle, common horseweed, red brome, and Chilean brome.

4.2.3 - Disturbed Ephemeral Drainage—0.11 Acre

A disturbed ephemeral drainage was observed on the project site adjacent and parallel to the Highway 395 road shoulder. This habitat shows evidence of intermittent water flow and this drainage is flanked by clumps of fourwing saltbush, allscale saltbush, and rubber rabbitbrush along its banks and in the channel itself.

4.2.4 - Urban/Developed—Off Project Site

Urban/Developed land is classified as areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported and retains no soil substrate. Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident because a large amount of debris or other materials have been placed upon it may also be considered urban/developed (e.g., car recycling plant, gravel-covered parking lot, quarry). While most areas that are developed do not support vegetation, developed areas also contain landscaped areas where ornamental, usually non-native plants.

Urban/developed habitats are not present on project site but were observed in the 500-foot buffer area around the project site.

4.3 - Wildlife

The vegetation community and land cover types discussed above provide habitat for a number of local wildlife species. Wildlife activity was low during the field survey and consisted of avian and mammal species. The following are brief discussions of wildlife species observed within the project site during the field survey, separated into taxonomic groups.

4.3.1 - Birds

Avian species observed during the site visit included rock dove (*Columba livia*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), and house finch (*Haemorhous mexicanus*).

4.3.2 - Mammals

California ground squirrel (*Otospermophilus beecheyi*) and desert cottontail (*Sylvilagus audubonii*) were directly observed during the field survey. Other burrows and digging sign on the project site suggested occupancy by white-tailed antelope squirrels (*Ammospermophilus leucurus*) and canids (coyote [*Canis latrans*] or domestic dog [*Canis familiaris*]). Several California ground squirrel burrows or burrow complexes, which commonly provide burrowing/nesting opportunities for burrowing owl (*Athene cunicularia*) and refuge for numerous other small mammals and reptiles were observed on the project site and its 500-foot buffer area. Those detected on the project site are depicted in Exhibit 7.

4.3.3 - Reptiles

Western side-blotched lizard (*Uta stansburiana elegans*) was the only reptile observed on-site. No sign of Agassiz's desert tortoise (*Gopherus agassizii*), including burrows, scat, or tracks, was observed on the project site, nor were any burrows detected on adjacent properties in the 500-foot buffer area.

4.4 - Jurisdictional Waters and Wetlands

An assessment of potentially jurisdictional features was conducted as part of the literature review and reconnaissance-level survey for the project site. An ephemeral drainage running parallel to Highway 395 that bisects the project site was observed during the field survey (Exhibit 5). The drainage showed physical characteristics of a desert wash such as a defined bed, bank, and sediment deposits indicative of water flow. This drainage shows evidence of previous disturbance and was filled litter and other man-made debris (Appendix A). FCS Biologists were unable to conclusively determine if this drainage could be designated as a water of the United States or water of the State and therefore jurisdictional.

4.5 - Wildlife Movement Corridors

The project site does not contain any prominent features that would convey wildlife movement. The project site's proximity of Highway 395 to the project site further reduces the likelihood of wildlife movement occurring on the project site. The disturbed drainage which lies adjacent and parallel to Highway 395 and does not connect wildland areas or provide features that would facilitate wildlife movements more than the adjacent areas supporting creosote bush–white bursage scrub habitat.

4.6 - Trees

No trees observed on the project site with the tallest vegetation present on-site consisting of creosote bush shrubs. However, several isolated Joshua trees were observed in the 500-ft buffer area on adjacent parcels supporting creosote bush–white bursage scrub habitat.

Source: Google Earth Aerial Imagery. USDA Soils Data Mart, San Bernardino Mojave River Area.

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Feet

Exhibit 4
Soils Map

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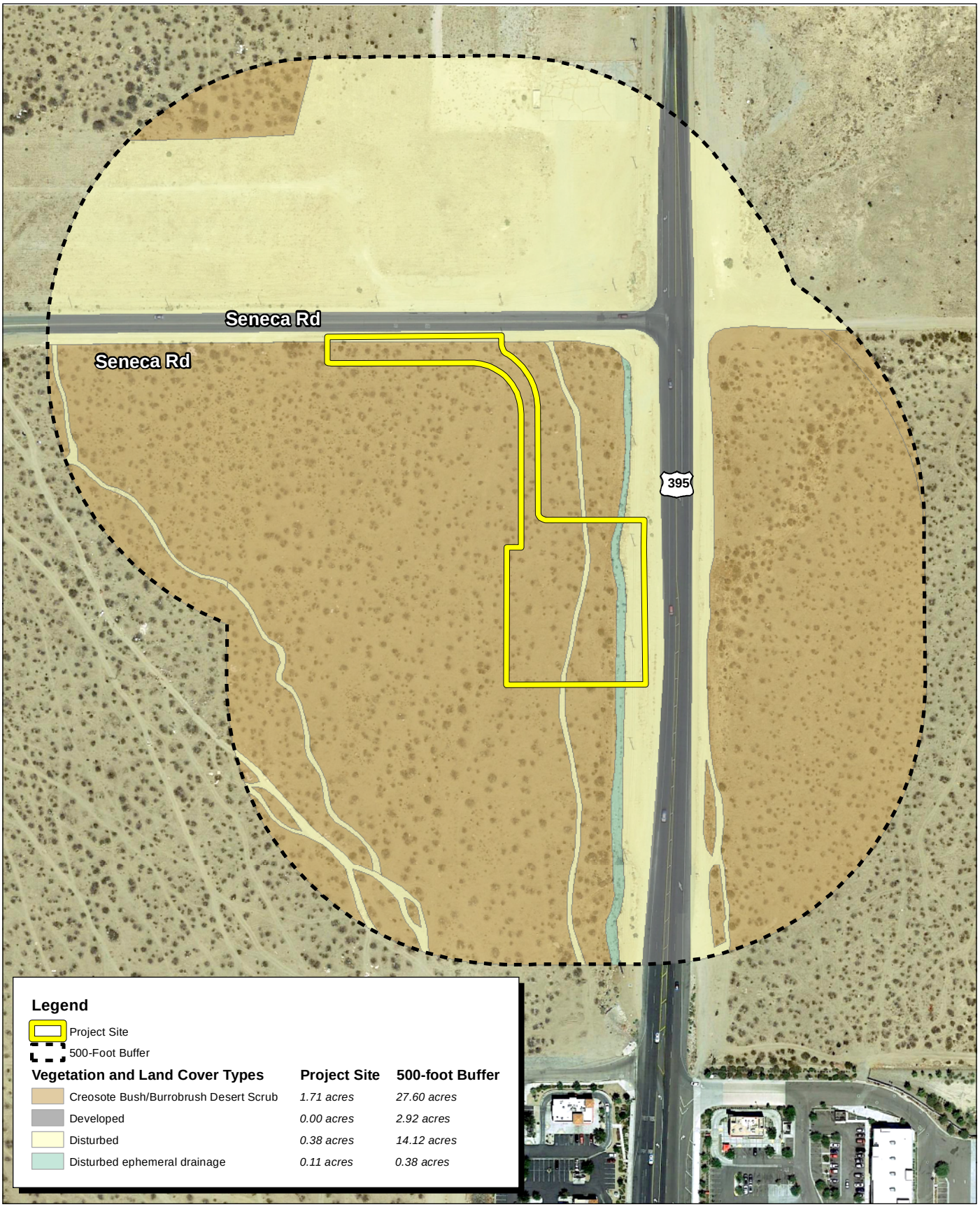

Source: Google Earth Aerial Imagery.

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Feet

Exhibit 5
Vegetation and Land Cover Types

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

The following section discusses the existing site conditions and potential for special-status biological resources to occur on and immediately adjacent to the project site.

5.1 - Sensitive Natural Communities

Sensitive natural communities are classified based on their limited distributions, and habitat requirements of special-status plant or wildlife species that occur within them. Sensitive natural communities are often regulated by federal, State, or local laws that limit development within them. The List of California Terrestrial Natural Communities lists sensitive natural communities and provides alliance rankings according to their degree of imperilment.[24]

A review of the CNDDB was used to identify sensitive natural vegetation communities that have been recorded in the project vicinity and within a 5-mile radius of the site. The project site was also searched for evidence of sensitive natural vegetation communities during the biological field survey. No sensitive communities were identified in the CNDDB as occurring within 5 miles of the project site and none were observed on the project site.

5.2 - Special-status Plant Species

The Special-status Plant Species Table (Appendix B, Table 1) lists a total of eight special-status plant species and CNPS sensitive species that have been recorded within the *Adelanto*, California topographic quadrangle and its eight neighboring quadrangle maps by the CNDDB and CNPSEI.[25,26,27] The table also includes the species' status, required habitat, and potential to occur within the project site. All special-status plant species that were determined to have no potential to occur on-site are also included in the table, along with the justification for their exclusion from further discussion.

Three of these special-status plant species, including sagebrush loeflingia (*Loeflingia squarrosa* var. *artimisiarum*), white pygmy poppy (*Candya candida*), and Beaver Dam breadroot (*Pediomelum castoreum*), were recorded within 5 miles of the project site, depicted in Exhibit 6. Due to the high level of disturbance or a lack of suitable habitat on the project site, most species in the 9-quad search area were assessed as having a "low potential to occur" or "absent" from the project site and were eliminated from further consideration. One special-status species, Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*), was determined to be absent because another subspecies that is not a special-status plant, Booth's desert primrose (*Eremothera boothii* ssp. *desertorum*), was

[24] California Department of Fish and Wildlife (CDFW). 2019. Natural Communities List, Sacramento: California Department of Fish and Wildlife.

[25] United States Geological Survey (USGS). 2020. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con

[26] California Department of Fish and Wildlife (CDFW). 2020. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed June 24, 2020.

[27] California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed June 24, 2020.

confirmed to occur on the project site, based on the shape of its mature fruits. One special-status species, Beaver Dam breadroot (*Pediomelum castoreum*), was assessed as having "moderate potential to occur" on the project site, described below.

5.2.1 - Beaver Dam Breadroot

Beaver Dam breadroot is a low-growing, somewhat mounded perennial forb with many basal leaves, short flowering stalks, and a deep root. Beaver Dam breadroot occurs on desert flats with high mud content and also on gravely or sandy soils in washes and roadcuts in creosote bush scrub and Joshua tree woodland vegetation comm-unities. There is one known occurrence of this species within 5 miles of the project site (Exhibit 6). This species is tolerant of disturbances and may occur in or around the disturbed drainage observed on the project site.

5.3 - Special-status Wildlife Species

The Special-status Wildlife Species Table (Appendix B, Table 2) identifies 20 federal and State-listed threatened and/or endangered wildlife species and State Species of Special Concern that have been recorded in the CNDDB as potentially occurring within the *Adelanto,* California topographic quadrangle and its eight neighboring quadrangle maps. The table also includes the species' status, required habitat types and features, and potential to occur within the project site. Table 2 includes all special-status wildlife species that have been determined unlikely to occur on-site, primarily based on the absence of suitable habitat and no recorded occurrence in the project vicinity, along with the justification for their exclusion from further discussion.

Five of these special-status wildlife species, including Agassiz's desert tortoise, Swainson's hawk (*Buteo swainsoni*), burrowing owl, loggerhead shrike (*Lanius ludovicianus*), and Mohave ground squirrel (*Xerospermophilus mohavensis*), were recorded within 5 miles of the project site, as depicted in Exhibit 6. Due to the high level of disturbance or a lack of suitable habitat on the project site, most species in the 9-quad search area, including Agassiz's desert tortoise, Swainson's hawk, and Mohave ground squirrel, were assessed as having a "low potential to occur" or "absent" from the project site and were eliminated from further consideration. Two wildlife species were assessed as having "high potential to occur" on the project site, including burrowing owl and loggerhead shrike. These species are described in detail below.

5.3.1 - Burrowing Owl

Burrowing owl occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably the California ground squirrel. There are 31 occurrences of this species within 5 miles of the project site (Exhibit 6). Several California ground squirrel burrows or burrow complexes, which provide suitable burrowing and nesting habitat for burrowing owl, were detected on and adjacent to the project site during the field survey (Exhibit 7). There is a high potential for burrowing owl to occur and nest in the creosote bush–white bursage scrub habitat on and adjacent to the project site. Burrowing owl could occur on the project during three different seasons associated with their life history, including the breeding season (generally between February

15 and August 31), post-breeding dispersal season (generally between September 1 and November 30), and wintering season (generally between December 1 and February 14).

5.3.2 - Loggerhead Shrike

Loggerhead shrikes prefer open areas for hunting and perches for scanning. It often forages within broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, desert scrub, and desert wash habitats. This species often nests in fairly dense shrubs and brush. The proposed project site is largely dominated by creosote bush–white bursage scrub which provides suitable foraging and nesting habitat for loggerhead shrike. There are two known occurrences of this species within 5 miles of the project site (Exhibit 6). There is high potential for this species to occur and nest in the creosote bush–white bursage scrub habitat on the and adjacent to the project site.

5.3.3 - Nesting Birds

The project site supports nesting habitat for native species of birds, particularly in the creosote bush–white bursage scrub habitat on and adjacent to the project site.

5.4 - Wildlife Movement Corridors

The project site does not contain any creeks, washes, waterways, or any other prominent feature that would convey wildlife movement. The disturbed drainage on the project site is adjacent and parallel to Highway 395 and does not connect wildland areas or provide features that would facilitate wildlife movements more than the adjacent areas supporting creosote bush–white bursage scrub habitat.

On a local scale, development of the proposed project will not limit wildlife movement in a significant way. Currently, undeveloped parcels are directly adjacent to and surround the project site, allowing wildlife to move around the project site. In a cumulative sense, the proposed project will contribute incrementally to impedance of wildlife movements that are already caused by developments, roads, and urbanized areas in the project vicinity, including a residential neighborhood to the west and a shopping center to the south (both within 1,000 feet of the project site), and the adjacent Highway 395. These existing features likely already limit wildlife movements through the area significantly, and the proposed project's contribution to constraining wildlife movement through the vicinity is minor and insignificant.

5.5 - Joshua Trees

Joshua trees were not observed on the project site. However, several isolated Joshua trees were observed in the 500-foot buffer area on adjacent parcels supporting creosote bush–white bursage scrub habitat.

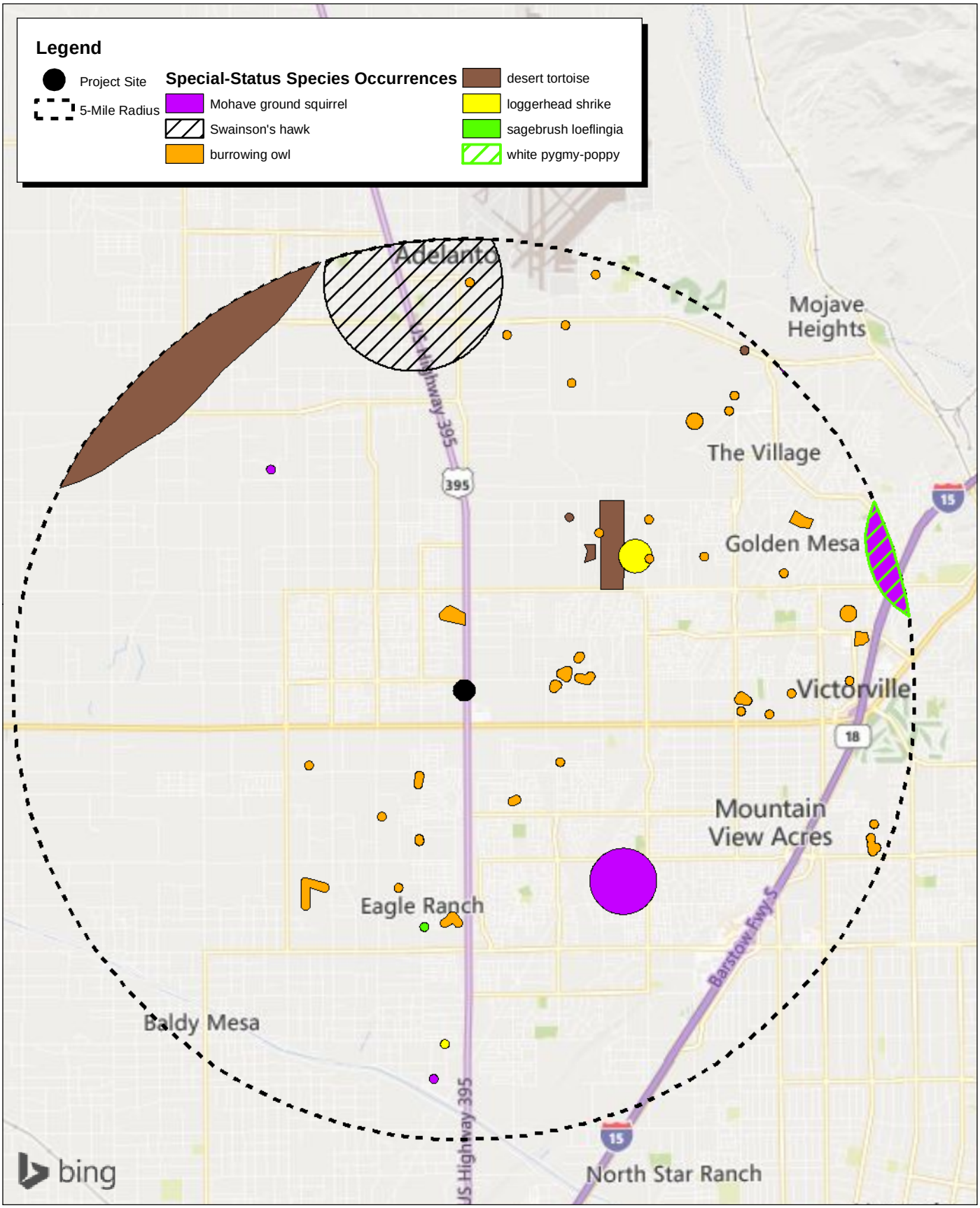
5.6 - Jurisdictional Waters and Wetlands

The disturbed ephemeral drainage running parallel to Highway 395 may be considered jurisdictional. The drainage showed physical characteristics of a desert wash such as a defined bed, bank, and sediment deposits indicative of water flow. There is evidence that this drainage has been previously

disturbed and may have formed through anthropogenic processes associated with the presence or maintenance of Highway 395. However, disturbed and even man-made hydrological features may sometimes be considered jurisdictional if they meet the criteria of a wetland (hydrology, soils, vegetation) or have connections to other jurisdictional waters. Desert washes are notoriously difficult to delineate because they typically lack one or more of these indicators. FCS Biologists were unable to conclusively determine if this drainage could be designated as a water of the United States or water of the State and therefore jurisdictional. Further studies would be needed to determine if this feature is indeed jurisdictional. If this disturbed ephemeral drainage is determined to be jurisdictional then the proposed project would likely have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA. Potential impacts are addressed in the impact analysis and recommendations section of this document.

5.7 - Other Jurisdictional Habitats/Areas

The project site does not fall within any adopted NCCP or HCP, nor is it located within USFWS-designated Critical Habitat for any listed species.



Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), July 2020.

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1.5 0.75 0 1.5 Miles

Exhibit 6
Special-Status Species Occurrences Within 5-mile Radius

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Source: Google Earth Aerial Imagery.

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Exhibit 7
Ground Squirrel Burrows Observed

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SECTION 6: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential impacts to special-status species and other sensitive biological resources that could be caused by project implementation and recommends Mitigation Measures (MMs), where appropriate, to minimize those impacts to a level of "less than significant" under CEQA.

6.1 - Special-status Wildlife Species

Three special-status species were assessed as having a moderate to high potential to occur on the project site:

- Beaver Dam breadroot: moderate potential to occur
- Burrowing owl: high potential to occur
- Loggerhead shrike: high potential to occur

Project implementation could potentially cause direct or indirect impacts to these species at a level considered significant under CEQA. The following recommended studies and/or mitigation/avoidance measures should be implemented to reduce or avoid impacts to a "less than significant" level.

6.1.1 - Beaver Dam Breadroot

Beaver Dam breadroot is not listed under FESA or CESA but is assessed as 1B.1 on the CNPS Inventory and protected under CEQA.[28] This species was not observed on the project site during the field survey, but the survey was conducted outside of the blooming period for this species (April through May). Implementation of the proposed project could result in direct mortality or the loss of habitat for this special-status plant species, a potentially significant impact.

Beaver Dam breadroot could potentially be directly and/or indirectly affected by the proposed project. Construction of the proposed project could result in direct loss of individuals of this special-status plant species if it is present. In addition to direct impacts, indirect impacts to special-status plant species could occur through degradation of habitat due to temporary construction impacts, the introduction of invasive or noxious plant species, and increased human activity on the project site attributable to project operations.

Mitigation Measures

MM BIO-1a Prior to any vegetation removal or ground disturbing activities, focused surveys shall be conducted during the blooming period to determine if Beaver Dam breadroot is present. Surveys shall be conducted in accordance with California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special

[28] California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed June 24, 2020.

Status Native Plant Populations and Sensitive Natural Communities.[29] These guidelines require rare plant surveys to be conducted at the proper time of year when rare or endangered species are both "evident" and identifiable. Field surveys shall be scheduled to coincide with known blooming periods, and/or during periods of physiological development that are necessary to identify the plant species of concern. The rare plant survey should be conducted between April through May to identify Beaver Dam breadroot during its blooming period. If none are found on the project site, then the project will not have any impacts to the species and no additional mitigation measures are necessary.

MM BIO-1b If focused surveys indicate that Beaver Dam breadroot is present on the project site, the project Applicant shall evaluate the feasibility of reconfiguring the project design in order to avoid or minimize impacts to the species. In addition to avoiding direct impacts to Beaver Dam breadroot, potential indirect, project construction, and project operation impacts shall be minimized to the maximum extent feasible through means including, but not limited to, the installation of protective fencing and environmentally sensitive area signage. Additionally, a Worker Environmental Awareness Program (WEAP) shall be implemented to educate construction workers about the presence of Beaver Dam breadroot and other sensitive resources in and near the project site, and to instruct them on proper avoidance, required measures and practices for protecting biological resources and contacts and procedures in case Beaver Dam breadroot is encountered during construction.

MM BIO-1c If Beaver Dam breadroot is found on-site and cannot be avoided, the City of Adelanto shall consult with the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW), as applicable, to determine feasible impact minimization and mitigation measures for this special-status species, which may include, but are not limited to the following:

- Habitat restoration to mitigate for unavoidable temporary construction impacts to Beaver Dam breadroot habitat on-site.
- Incorporating project features designed to reduce ongoing impacts from project operation, including controlling public access to avoid any remaining Beaver Dam breadroot habitat on-site.
- In conjunction with academic institutions and/or regional native plant nurseries, a propagation program shall be developed for the salvage and transfer of Beaver Dam breadroot populations from the project site before the initiation of construction activities. Permits may be required from the CDFW or USFWS, which will ensure that certified Biologists are involved in the propagation and transport of rare, threatened, or endangered plant species. (Note: propagation methods for the salvaged plant population must be developed on a case-by-case basis and must include the involvement of local conservation easements/preserves/open space, where applicable). The propagation of individual plant species must be

[29] California Department of Fish and Wildlife (CDFW). 2018. CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. Website: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline

performed at the correct time of year and successfully completed before project construction activities eliminate or disturb the plants and habitats of concern.

- Efforts should be made to salvage portions of the habitat or plant populations that will be lost as a result of implementation of the proposed project. In addition to salvaging Beaver Dam breadroot plants themselves, salvage efforts shall include soil and seed-banks surrounding impacted plants, if doing so will not contribute to the spread of invasive or noxious plant species.
- Appropriate off-site conservation opportunities shall be identified and, if feasible, protected in perpetuity through the purchase of conservation easements and/or mitigation bank credits. The habitat value of off-site conservation areas shall be enhanced where feasible through means such as reducing grazing intensity and restricting off-highway vehicle access. At a minimum, the acreage of off-site habitat conserved should exceed a 1:1 ratio of impacted rare plant habitat on the project site. The ratio should increase depending on the rarity of the affected rare plant species, and the abundance of Beaver Dam breadroot habitat impacted.
- Implementation of the above mitigation measures would reduce potential impacts to special-status plant species to a less-than-significant level.

MM BIO-1d If Beaver Dam breadroot is found on-site and Mitigation Measure (MM) BIO-1c and MM BIO-1d are implemented, the City of Adelanto shall design and implement a monitoring program to evaluate compliance with and the effectiveness of these mitigation measures. The monitoring program shall be conducted by a qualified botanist, and shall take place periodically during project construction, and annually, following the completion of construction, for 5 years. The project Applicant shall bear the financial responsibility for mitigation measure monitoring and reporting for the entirety of the 5-year reporting period. If the monitoring program identifies mitigation measure noncompliance or ineffectiveness, the project Applicant shall fund and implement remedial measures including, but not limited to, on-site habitat restoration, the installation and maintenance of additional fencing, and other appropriate measures. The project Applicant shall ensure that sufficient funding exists to complete all reasonably foreseeable remedial actions prior to the commencement of project construction. Annual monitoring reports shall be submitted to the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW), as applicable.

6.1.2 - Burrowing Owl

The creosote bush–white bursage scrub vegetation community and California ground squirrel burrows on and adjacent to the project site could support the occurrence of burrowing owl, a California Species of Special Concern. Their conservation status provides protection under CEQA. Furthermore, if burrowing owl nest on the project site, they would be protected under the MTBA and the California Fish and Game Code. Implementation of the proposed project could result in direct mortality or the loss of habitat for this special-status wildlife species, a potentially significant impact.

Burrowing owl could potentially be directly and/or indirectly affected by the proposed project. Construction of the proposed project could result in direct loss of individuals of this special-status wildlife species if it is present. In addition to direct impacts, indirect impacts to this species could occur through degradation of habitat due to temporary construction impacts and increased human activity on the project site attributable to project operations. The following measures should be implemented to prevent direct or indirect impacts to burrowing owl that occur on or adjacent to the project site. These measures are based on guidance the (2012) Staff Report on Burrowing Owl Mitigation provided by the CDFW.[30]

Mitigation Measures

MM BIO-2a The project Applicant shall hire a qualified Biologist to conduct a habitat assessment of the project site and lands within 500 feet to map suitable burrowing microhabitats, especially California ground squirrel or coyote burrows. The habitat assessment shall be conducted according to protocol defined by the California Department of Fish and Wildlife (CDFW).[31] The survey results shall be reported to the CDFW and shall depict locations of burrows that are occupied or suitable for occupancy by burrowing owl. Following the habitat assessment, breeding season, non-breeding season, and pre-construction surveys shall be performed.

MM BIO-2b Breeding season and non-breeding season surveys shall be implemented by a qualified Biologist. Four breeding season survey visits shall be conducted: (1) at least one site visit between February 15 and April 15, and (2) a minimum of three survey visits, at least 3 weeks apart, between April 15 and July 15, with at least one visit after June 15. Non-breeding season surveys shall be conducted over a series of four visits spaced throughout the non-breeding season (September 1 through February 14). Each of the survey efforts will be conducted according to protocol defined by the California Department of Fish and Wildlife (CDFW). The results of the breeding season and non-breeding season surveys shall be reported to the CDFW. If both the breeding season and non-breeding surveys are negative for burrowing owl, the project Applicant shall implement Mitigation Measure BIO-2d.

MM BIO-2c If the breeding season or non-breeding surveys determine that burrowing owl occupies the project site, the City of Adelanto shall consult with the California Department of Fish and Wildlife (CDFW) to determine appropriate mitigation for the loss of burrowing owl habitat due to project implementation. The outcome of the consultation shall determine the need for on-site or off-site mitigation for burrowing owl, including habitat area mitigation ratios. The outcome of the consultation shall be included in a Burrowing Owl Mitigation Plan that shall be prepared by a qualified Biologist retained by the project Applicant (see MM BIO -2e).

MM BIO-2d The project Applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey in order to determine if burrowing owl are present within 30

[30] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation, Sacramento: California Department of Fish and Wildlife.

[31] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation, Sacramento: California Department of Fish and Wildlife.

days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) guidelines. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows will be mapped on an aerial photo. At least 15 days prior to the expected start of any project-related ground disturbance activities, or restart of activities, the City of Adelanto shall provide a burrowing owl survey report and mapping to the CDFW. If no burrowing owl are detected during the pre-construction survey, no further action is necessary.

MM BIO-2e If any of the surveys (breeding season, non-breeding season, or pre-construction) are positive for burrowing owl, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan and a WEAP. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the California Department of Fish and Wildlife [CDFW] guidelines) [32] at a minimum:

- Avoidance of burrowing owl during construction, including establishment of a 160-foot radius around occupied burrows during the non-breeding season (September 1 through February 14) or a 300-foot radius around occupied burrows during the breeding season (February 15 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) non-breeding season owl have dispersed from the area; or (2) breeding season owl have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for non-breeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

A WEAP shall be implemented to educate construction workers about the presence of burrowing owl and other sensitive resources in and near the project site, and to instruct them on proper avoidance, required measures and practices for protecting biological resources and contacts and procedures in case burrowing owl is encountered during construction. The WEAP shall include protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. Penalties for violations of environmental laws shall also be incorporated into the training session. All new construction personnel shall receive this training before beginning work on this project.

[32] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation, Sacramento: California Department of Fish and Wildlife.

6.1.3 - Loggerhead Shrike

The creosote bush–white bursage scrub vegetation community on and adjacent to the project site could support the occurrence of loggerhead shrike, a California Species of Special Concern. Their conservation status provides protection under CEQA. Furthermore, if loggerhead shrike nest on the project site, they would be protected under the MTBA and California Fish and Game Code. Implementation of the proposed project could result in direct mortality or the loss of habitat for this special-status wildlife species, a potentially significant impact.

Nesting loggerhead shrike could potentially be directly and/or indirectly affected by the proposed project. Construction of the proposed project could result in direct loss of individuals of this special-status wildlife species if it is present. In addition to direct impacts, indirect impacts to this species could occur through degradation of habitat due to temporary construction impacts and increased human activity on the project site attributable to project operations. To avoid impacts to nesting loggerhead shrikes during project construction, the project proponent shall implement MM BIO-3, which specifies measures to avoid impacts to nesting birds (see below).

6.1.4 - Nesting Birds

Construction activities could disturb breeding birds that nest in shrubs and on the ground surface in the creosote bush–white bursage scrub vegetation community on and adjacent to the project site. Potential impacts on special-status and migratory birds (including loggerhead shrike) that could result from the construction and operation of the project include the destruction of eggs or occupied nests, mortality of young, and the abandonment of nests with eggs or young birds prior to fledging. Additionally, project implementation could result in loss of nesting habitat. These impacts would be considered significant under CEQA and are prohibited under MTBA and the California Fish and Game Code. The following mitigation measure shall be implemented to reduce impacts to nesting birds to a less than significant level.

Mitigation Measure

BIO MM-3 If project construction activities will be initiated during the nesting season for local avian species (February 15 through August 31), the project Applicant shall retain a qualified Biologist to conduct a pre-construction survey for active nests of raptors and migratory birds within and adjacent to the project site (no less than 300 feet outside project boundaries, where possible) no more than 3 days prior to ground disturbing and/or vegetation removing construction activities. If active nests are located during pre-construction surveys, the Unites States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) shall be notified regarding the status of the nests. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned, or a Biologist deems disturbance potential to be minimal (in consultation with the USFWS and/or CDFW). Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around the nest) or alteration of the construction schedule. A qualified Biologist shall delineate the buffer(s) using nest buffer signs, environmentally sensitive area fencing, pin flags, and/or flagging tape.

The buffer zone will be maintained around the active nest site(s) until the young have fledged and are foraging independently.

A Worker Environmental Awareness Program (WEAP) shall be implemented to educate construction workers about the presence of nesting birds (including burrowing owl and loggerhead shrike) and other sensitive resources in and near the project site, and to instruct them on proper avoidance, required measures and practices for protecting biological resources and contacts and procedures in case nesting birds are encountered during construction. The WEAP shall include protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. Penalties for violations of environmental laws shall also be incorporated into the training session. All new construction personnel shall receive this training before beginning work on the project.

No action is necessary if construction will be initiated during the nonbreeding season (generally September 1 through February 14).

6.2 - Jurisdictional Waters and Wetlands

There is potential that the disturbed ephemeral drainage present on-site may be jurisdictional. FCS recommends that separate Jurisdictional Delineation report be prepared in accordance with USACE guidelines to determine if this feature is indeed jurisdictional. If the disturbed ephemeral drainage is determined to be jurisdictional then the proposed project would likely have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA and mitigation would be necessary.

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Appendix A:
Site Photographs

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Photograph 1: Overview of the project site from the northeast corner; facing south.

Photograph 2: Overview of the project site from the northeast corner; facing west.

Photograph 3: Overview of the project site from the northwest corner; facing south.

Photograph 4: Overview of the project site from the northwest corner; facing southeast.

Photograph 5: Overview of the project site from the southwest corner; facing northeast.

Photograph 6: Overview of the project site from the southwest corner; facing east.

Photograph 7: View of disturbance (vehicle tracks) on the project site.

Photograph 8: View of the disturbed ephemeral drainage in the area just south of the project boundary; facing south.

Photograph 9: View of the disturbed ephemeral drainage in the project site; facing north.

Photograph 10: View of the disturbed ephemeral drainage in the project site; facing south from the northern project boundary.

Appendix B:
Special-status Species Tables

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Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale[5]	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Canbya candida white pygmy-poppy	—	—	4.2	Occurs on gravelly, sandy, or granitic soils in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland vegetation communities. Occurs at elevations between 600–1460 m. Blooming period: Mar-Jun	**Low:** The high level of disturbance on the project site likely prevents occurrence of this species. There is one recorded occurrence of this species within 5 miles of the project site.	No
Diplacus mohavensis Mojave monkeyflower	—	—	1B.2	Occurs on sandy or gravelly soils, often in washes, in Joshua tree woodland and Mojavean desert scrub vegetation communities. Occurs at elevations between 600–1200 m. Blooming period: Apr-Jun	**Low:** The high level of disturbance on the project site likely prevents occurrence of this species. There are no recorded occurrences of this species within 5 miles of the project site.	No
Eremothera boothii ssp. *boothii* Booth's evening-primrose	—	—	2B.3	Occurs on sandy soils on flats, washes, and steep, loose slopes in Joshua tree woodland and pinyon and juniper woodland vegetation communities. Occurs at elevations between 815 - 2400 m. Blooming period: Apr-Sep	**None:** a subspecies of Booth's evening-primrose, Booth's desert primrose (*Eremothera boothii* ssp. *desertorum*) was identified on the project site based on the shape of its fruits. There are no recorded occurrences of *Eremothera boothii* ssp. *boothii* within 5 miles of the project site.	No
Loeflingia squarrosa var. *artemisiarum* sagebrush loeflingia	—	—	2B.2	Occurs on sandy soils on flats, dunes, and around clay slicks in Great Basin scrub and Sonoran Desert scrub vegetation communities. Occurs at elevations between 700–1615 m. Blooming period: Apr-May	**Low:** The high level of disturbance on the project site likely prevents occurrence of this species. There is one recorded occurrence of this species within 5 miles of the project site.	No
Opuntia basilaris var. *brachyclada* Short-joint beavertail	—	—	1B.2	Occurs on sandy or gravelly soils in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland vegetation communities. Occurs at elevations between 425 - 1800 m. Blooming period: Apr-Jun	**None:** This conspicuous species was not observed on the project site during the field survey. The high level of disturbance on the project site likely prevents occurrence of this species. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale[5]	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Pediomelum castoreum Beaver Dam breadroot	—	—	1B.2	Occurs on desert flats with high mud content and gravely or sandy soils in washes and roadcuts in Joshua tree woodland and Mojavean desert scrub. Occurs at elevations between 610 - 1525 m. Blooming period: Apr-May	**Moderate:** The high level of disturbance on the project site likely prevents occurrence of this species, though the species is tolerant of disturbances. There is one recorded occurrence of this species within 5 miles of the project site.	Yes
Scutellaria bolanderi ssp. *austromontana* Southern mountains skullcap	—	—	1B.2	Occurs on mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest vegetation communities. Occurs at elevations between 425 - 2000 m. Blooming period: Jun-Aug	**None:** There is no suitable habitat (mesic soils) on the project site. Additionally, the high level of disturbance on the project site likely prevents occurrence of this species. There are no recorded occurrences of this species within 5 miles of the project site.	No
Symphyotrichum defoliatum San Bernardino aster	—	—	1B.2	Occurs on mesic soils in or near ditches, streams, and springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and vernally mesic valley and foothill grassland communities. Occurs at elevations between 2 - 2040 m. Blooming period: Jul-Nov	**None:** There is no suitable habitat (mesic soils) on the project site. Additionally, the high level of disturbance on the project site likely prevents occurrence of this species. There are no recorded occurrences of this species within 5 miles of the project site.	No

Code Designations

[1] **Federal Status: 2020 USFWS Listing**

[2] **State Status: 2020 CDFW Listing**

[3] **CNPS: 2020 CNPS Listing**

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale[5]	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			

ESU = Evolutionary Significant Unit is a distinctive population.
FE = Listed as endangered under the FESA.
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FC = Candidate for listing (threatened or endangered) under FESA.
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MBTA = protected by the Migratory Bird Treaty Act
— = Not federally listed

SE = Listed as endangered under the CESA.
ST = Listed as threatened under the CESA.
SSC = Species of Special Concern as identified by the CDFW.
FP = Listed as fully protected under FGC.
CFG = FGC =protected by FGC 3503.5
CR = Rare in California.
— = Not state listed

Rank 1A = Plants species that presumed extinct in California.
Rank 1B = Plant species that are rare, threatened, or endangered in California and elsewhere.
Rank 2 = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 = Plants about which we need more information—A Review List
Rank 4 = Plants of limited distribution—A Watch List
Blooming period: Months in parentheses are uncommon.

[4] **Habitat Description**: Habitat description adapted from CNDDB[1] and CNPS online inventory[2] or other specified source*.
[5] **Potential to Occur and Rationale**: Location of recorded species occurrences determined by geospatial information from BIOS 5[3] or other specified source*.

[1] California Department of Fish and Wildlife (CDFW). 2020. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed June 24, 2020.
[2] California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed June 24, 2020.
[3] California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed June 24, 2020.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Amphibians					
Anaxyrus californicus Arroyo toad	FE	SSC	Occurs in washes, arroyos, sandy riverbanks, riparian areas with willows, sycamores, oaks, cottonwoods. Requires exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding.	**None:** There is no suitable habitat (aquatic habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Rana draytonii California red-legged frog	FT	SSC	Occurs in mesic forests in valleys and foothills near ponds or streams. May also occur in grasslands and coastal sage and Riversidean alluvial fan sage scrub near aquatic habitat. Breeds in permanent or ephemeral water sources, including lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Near ephemeral wetland habitats, require animal burrows or other moist refuges for estivation when the wetlands are dry.	**None:** There is no suitable habitat (aquatic habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Birds					
Accipiter cooperii Cooper's hawk	MTBA	CFG; WL	Occurs and nests in deciduous and mixed forests and open woodland habitats. Year-round resident in southern California.	**None:** There is no suitable habitat (open woodlands) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Agelaius tricolor Tricolored blackbird	MTBA	ST; SSC; FGC	Occurs and nests in large freshwater marshes with dense stands of hydrophytic vegetation (cattails, bulrushes, etc.). Short-distance migrant.	**None:** There is no suitable habitat (freshwater marsh) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Aquila chrysaetos Golden eagle	MTBA; BGEPA	FP; FGC	Occurs in a variety of terrestrial habitats except densely forested areas. Nests on cliff faces in desert montane areas in California.	**Low:** There is marginal foraging habitat on the project site, but no suitable nesting habitat. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Asio otus Long-eared owl	MTBA	FP; FGC	Occurs and nests in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or are adjacent to grasslands, meadows, or shrublands	**Low:** There is marginal foraging habitat on the project site, but no suitable nesting habitat. There are no recorded occurrences of this species within 5 miles of the project site.	No
Athene cunicularia Burrowing owl	MTBA	SSC; FGC	Occurs and nests in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel. Short-distance migrant.	**High**: Suitable foraging, burrowing, and nesting habitat (California ground squirrel burrows) present on the project site. There are 31 occurrences of this species within 5 miles of the project site.	Yes
Buteo swainsoni Swainson's hawk	MBTA	ST; FGC	Occurs and nests in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. Long-distance migrant.	**Low:** There is marginal foraging habitat on the project site, but no suitable nesting habitat. There is one recorded occurrence of this species within 5 miles of the project site, but the occurrence is historic (recorded in 1939). Likely only to occur as a transient migrant.	No
Charadrius montanus Mountain plover	MTBA	SSC; FGC	Occurs in short-grass prairie or similar habitats that are flat and nearly devoid of vegetation. Occurs in California only as a winter migrant.	**Low:** There is marginal wintering habitat on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Coccyzus americanus occidentalis Western, yellow-billed cuckoo	FT; MBTA	SE; FGC	Occurs and nests in riparian forest along the broad lower flood-bottoms of larger river systems. Found in riparian jungles of willow, often mixed with cottonwoods; understory consists of blackberry, nettles, and wild grape. Long-distance migrant.	**None:** There is no suitable habitat (riparian forest) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Empidonax traillii extimus Southwestern willow flycatcher	FE; MTBA	SE; FGC	Occurs and nests in dense riparian woodlands. Long-distance migrant.	**None:** There is no suitable habitat (riparian forest) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Falco mexicanus Prairie falcon	MTBA	WL; FGC	Occurs in perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. Typically nests in a scrape on a sheltered ledge of a cliff overlooking a large, open area. Resident to short-distance migrant.	**Low:** There is marginal foraging habitat on the project site, but no suitable nesting habitat. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Icteria virens Yellow-breasted chat	MTBA	SSC; FGC	Occurs and nests in riparian thickets of willow and other bushy tangles near watercourses. Long-distance migrant.	**None:** There is no suitable habitat (riparian thickets) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Lanius ludovicianus Loggerhead shrike	MTBA	SSC; FGC	Occurs and nests in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. Long-distance migrant.	**High**: Suitable foraging and nesting habitat present on the project site. There are two occurrences of this species within 5 miles of the project site.	Yes
Piranga rubra Summer tanager	MTBA	SSC; FGC	Occurs and nests in mature riparian woodland with an extensive canopy of Fremont cottonwood (*Populus fremontii*). Long-distance migrant.	**None:** There is no suitable habitat (riparian forest) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Setophaga petechia Yellow warbler	MTBA	SSC; FGC	Occurs and nests in willow shrubs and thickets, cottonwoods, sycamores, ash, and alders, predominantly in riparian habitats. Long-distance migrant.	**None:** There is no suitable habitat (riparian forest) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Toxostoma lecontei Le Conte's thrasher	MTBA	SSC; FGC	Occurs in gentle to rolling, well-drained slopes bisected with dry washes, conditions found most often on bajadas or alluvial fans.	**Low:** There is marginal foraging and nesting habitat on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Vireo bellii pusillus Least Bell's viero	FE; MTBA	SE; FGC	Occurs in low riparian habitat in the vicinity of water or in dry river bottoms. Nests placed along margins of bushes or in twigs projecting into pathways, usually willows, coyote bush, mule fat, or mesquite. Long-distance migrant.	**None:** There is no suitable habitat (riparian habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Vireo vicinior Gray vireo	MTBA	SSC; FGC	Occurs and nests in arid chaparral dominated by dense, mature stands of chamise (*Adenostoma fasciculatum*) or in pinyon-juniper woodlands.	**None:** There is no suitable habitat (chamise-dominated chaparral or pinyon-juniper woodlands) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Fish					
Siphateles bicolor mohavensis Mohave tui chub	FE	SE; FP	Formerly found in deep pools and slough-like areas of the Mojave River, this species now only occurs in highly modified refuge sites in San Bernardino County.	**None:** There is no suitable habitat (aquatic habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Invertebrates					
Helminthoglypta mohaveana Victorville shoulderband snail	—	—	Likely found only in relatively moist areas on canyon slopes and north-facing talus slopes in montane habitats. This species is only known from an area near Victorville.	**None:** There is no suitable habitat (mesic canyons or slopes) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Juniperella mirabilis Juniper metallic wood-boring beetle	—	—	The host plants for this species are junipers (*Juniperus* sp.), in which their eggs and larvae develop.	**None:** There is no suitable habitat (junipers) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Plebulina emigdionis San Emigdio blue butterfly	—	—	Found in desert canyons in montane desert regions of southern California from Inyo County southwest through the Mojave Desert and Southern Sierra Nevada to Los Angeles County. The host plant for its caterpillar is four-winged saltbush (shadscale) (*Atriplex canescens*). It is found only in where shadscale scrub grows.	**None:** There is no suitable habitat (montane canyons) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Bombus crotchii Crotch bumble bee	FC	—	Found in a wide variety of natural, agricultural, urban, and rural habitats, particularly in flower-rich open grassland and scrub habitats. Nests in abandoned rodent burrows.	**Low:** The high level of disturbance on the project site likely prevents occurrence of this species. Additionally, there are no recorded occurrences of this species within 5 miles of the project site.	No
Mammals					
Antrozous pallidus Pallid bat	—	SSC	Occurs in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Species is very sensitive to disturbance of roosting sites.	**Low:** There is marginal foraging habitat and no roosting habitat on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Chaetodipus fallax pallidus Pallid San Diego pocket mouse	—	SSC	Occurs in sandy, herbaceous areas, usually in association with rocks or coarse gravel, in coastal sage and Riversidean alluvial fan sage scrub, chaparral, and grasslands.	**None:** There is no suitable habitat (rocky areas, rocky or gravelly soils) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Corynorhinus townsendii Townsend's big-eared bat	—	SSC	Occurs in a wide variety of habitats, most commonly around mesic sites. Requires caves, mines, tunnels, buildings, or other human-made structures for Roosting.	**None:** There is no suitable habitat (mesic habitats, roosting structures) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Eumops perotis californicus Western mastiff bat	—	SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**Low:** There is marginal foraging habitat and no roosting habitat on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Lasionycteris noctivagans Silver-haired bat	—	—	Occurs in coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	**None:** There is no suitable habitat (woodland or riparian forest habitats, roosting structures) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Lasiurus cinereus Hoary bat	—	—	Occurs in woodlands and forests with medium to large-size trees and dense foliage. Roosts in dense foliage of medium to large trees.	**None:** There is no suitable habitat (woodlands) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Microtus californicus mohavensis Mojave river vole	—	SSC	Occurs in oak woodlands, grasslands, and freshwater and tidal marshes where flooding does not occur regularly. Restricted to the grassy or riparian habitats within the Mojave River corridor.	**None:** There is no suitable habitat (riparian habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Xerospermophilus mohavensis Mohave ground squirrel	—	ST	Occurs on sandy or gravelly soils in open desert scrub, alkali scrub and Joshua tree woodland. Typically burrows at base of shrubs.	**Low:** Though marginally suitable habitat occurs on the project site, anthropogenic developments in the project vicinity likely contributed to extirpation of the local population and prevents occurrence of this species. The project is located within a largely developed area and the existing developments and roadways in the project vicinity restrict the ability of this species to disperse to and from the site. There are five recorded occurrences of this species within 5 miles of the project site.	No
Antrozous pallidus Pallid bat	—	SSC	Occurs in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Species is very sensitive to disturbance of roosting sites.	**Low:** There is marginal foraging habitat and no roosting habitat on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Chaetodipus fallax pallidus Pallid San Diego pocket mouse	—	SSC	Occurs in sandy, herbaceous areas, usually in association with rocks or coarse gravel, in coastal sage and Riversidean alluvial fan sage scrub, chaparral, and grasslands.	**None:** There is no suitable habitat (rocky areas, rocky or gravelly soils) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No
Reptiles					
Phrynosoma blainvillii Coast horned lizard	—	SSC	Occurs in open areas with sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral.	**None:** The project site is outside of the known range of this species. There are no recorded occurrences of this species within 5 miles of the project site.	No
Actinemys pallida Southwestern pond turtle	—	SSC	Occurs in ponds, lakes, rivers, streams, marshes, and irrigation ditches with abundant vegetation and either rocky or muddy bottoms in woodland, forest, and grassland habitats.	**None:** There is no suitable habitat (aquatic habitat) on the project site. There are no recorded occurrences of this species within 5 miles of the project site.	No

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]	Included in Impact Analysis
Gopherus agassizii Agassiz's desert tortoise	FT	ST	Occurs in areas of friable soils in a variety of habitats from sandy flats to rocky foothills, including alluvial fans, washes and canyons in desert scrub habitats.	**Low:** The high level of disturbance on the project site and anthropogenic developments in the project vicinity likely contributed to extirpation of the local population and prevents occurrence of this species. The project is located within a largely developed area and the existing developments and roadways in the project vicinity restrict the ability of this species to disperse to and from the site. There are three occurrences of this species within 5 miles of the project site, including one located approximately 2.5 miles northeast of the project site.	No

Code Designations

[1] Federal Status: 2020 USFWS Listing		[2] State Status: 2020 CDFW Listing	
ESU	= Evolutionary Significant Unit is a distinctive population.	**SE**	= Listed as endangered under the CESA.
FE	= Listed as endangered under the FESA.	**ST**	= Listed as threatened under the CESA.
FT	= Listed as threatened under the FESA.	**SSC**	= Species of Special Concern as identified by the CDFW.
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—	= Not federally listed		

[3] **Habitat Description**: Habitat description adapted from CNDDB[4] or other specified source*.
[4] **Potential to Occur and Rationale**: Location of recorded species occurrences determined by geospatial information from BIOS 5[5] or other specified source*.

[4] California Department of Fish and Wildlife (CDFW). 2020. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed June 24, 2020.
[5] California Department of Fish and Wildlife (CDFW). 2020. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed June 24, 2020.

B.2 - Adelanto Quick N Clean Car Wash Project Jurisdictional Delineation

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FIRSTCARBONSOLUTIONS™

Jurisdictional Delineation
Highway 395 and Seneca Road Quick N Clean Car Wash Project
City of Adelanto, San Bernardino County, California

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Date: December 21, 2020 (Updated August 30, 2022)

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Table of Contents

List of Tables

List of Exhibits

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SECTION 1: INTRODUCTION

1.1 - Purpose of Assessment

FirstCarbon Solutions (FCS) completed a delineation of aquatic resources and proposes a Jurisdictional Determination (JD) for the Adelanto Quick N Clean Car Wash (Study Area) as depicted on Exhibit 1 through Exhibit 4. The purpose of this report is to support JDs by the United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB); to support California Department of Fish and Wildlife (CDFW) evaluation pursuant to Fish and Game Code Sections 1602 *et seq*. (Streambed Alteration Program); and to support the project applicant's planning and permitting efforts for a proposed development project.

1.2 - Project Description and Location

The Study Area is in the greater Victor Valley in the southeastern portion of the western Mojave Desert, which is bordered on the southwest by the San Gabriel Mountains, on the southeast by the San Bernardino Mountains, and the Mojave River to the east (Exhibit 1). The Study Area is located southwest of the intersection of U.S. Route 395 (Highway 395) and Seneca Road in the City of Adelanto, in San Bernardino County, California (Exhibit 2). The Study Area is located on the *Adelanto*, California United States Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map. The Study Area is currently vacant and supports a disturbed desert scrub vegetation community. Regional and local access to the site is provided via Highway 395, and Seneca Road.

The applicant proposes to develop a 4,552-square-foot Quick N Clean Car Wash and appurtenant facilities (proposed project) on the approximately 1.60-acre site. The proposed project would provide 37 vacuum structures within 37 standard parking stalls and a 138-foot drive-through vehicle wash tunnel; three drive-through pay stations; and paved driveways. The vehicle wash tunnel would be 4,552 square feet and would use a water recycling system to reduce water usage. Paved surfaces would total 39,715 square feet and building setbacks and side yards would be provided around the perimeter of the site, including a 25-foot parking setback adjacent to Highway 395.

1.3 - Driving Directions

From the intersection of Interstate 15 (I-15) and Highway 395, travel north along Highway Route 395 for approximately 7.5 miles and go past the strip mall located on either side of the road. The Study Area is located west of Highway 395, south of Seneca Road, and north of the strip mall.

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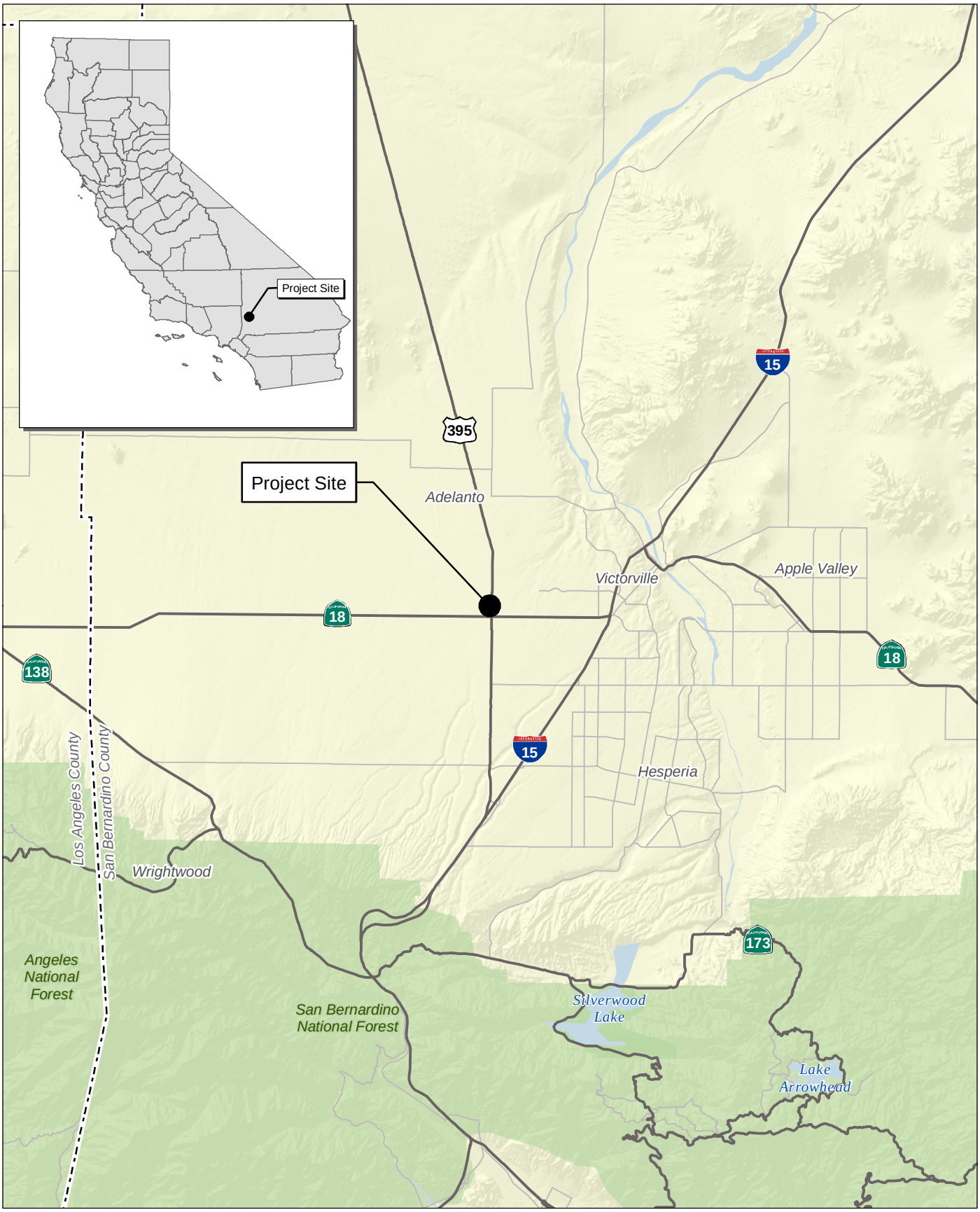

Source: Census 2000 Data, The CaSIL

FIRSTCARBON SOLUTIONS™

5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

50190002 • 12/2020 | 1_regional.mxd

3K1 CONSULTING
HIGHWAY 395 AND SENECA ROAD QUICK N CLEAN CAR WASH
JURISDICTIONAL DELINEATION

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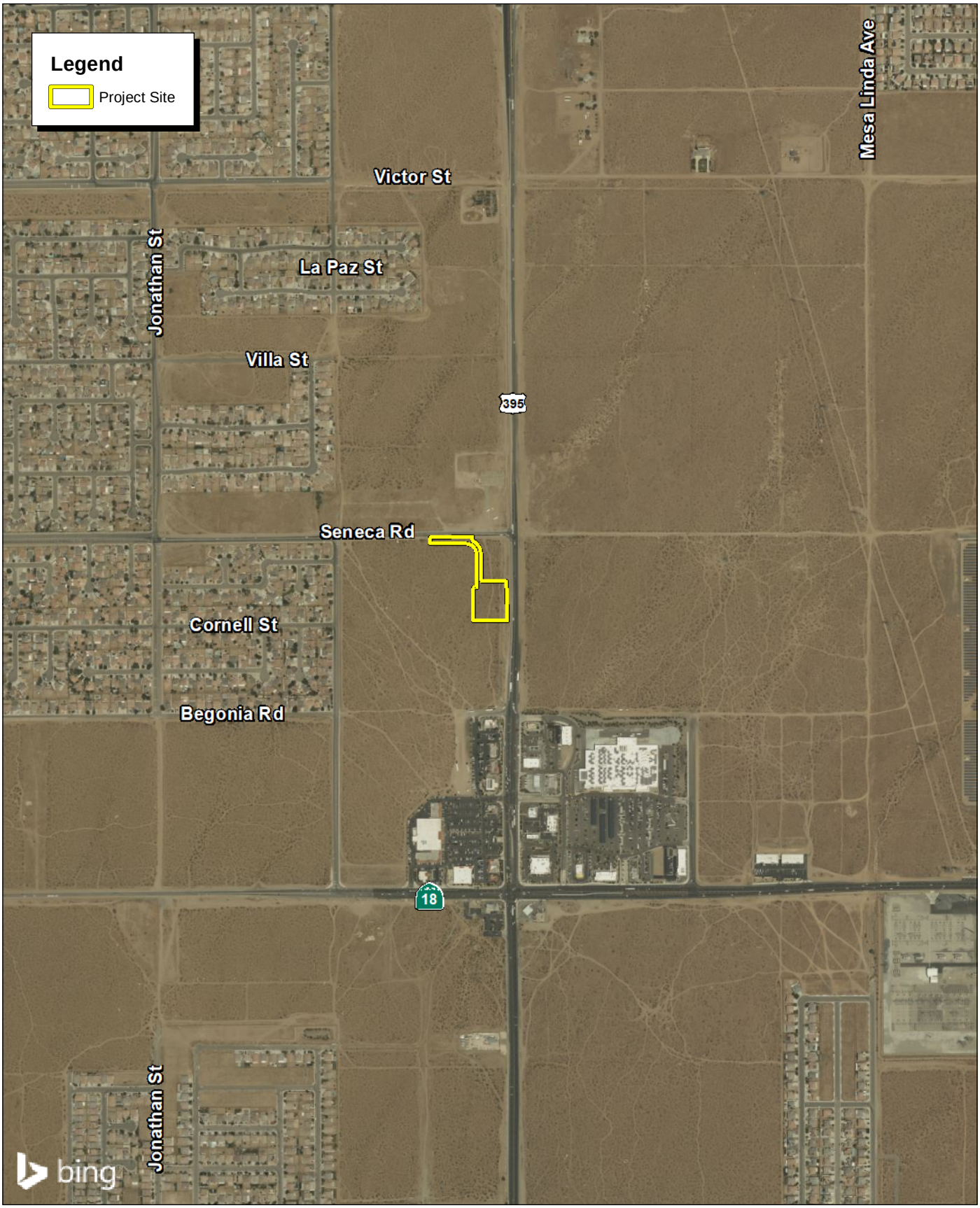

Source: Bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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Source: Google Earth Aerial Imagery. USDA Soils Data Mart, San Bernardino Mojave River Area.

FIRSTCARBON SOLUTIONS™

200 100 0 200
Feet

Exhibit 3
Soils Map

50190002 • 12/2020 | 3_soils.mxd

3K1 CONSULTING
HIGHWAY 395 AND SENECA ROAD QUICK N CLEAN CAR WASH
JURISDICTIONAL DELINEATION

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SECTION 2: ENVIRONMENTAL SETTING

2.1 - Existing Field Conditions

The Study Area is located on an undeveloped but highly disturbed parcel of land. Lands surrounding the Study Area include both undeveloped and developed lands (Appendix B: Site Photographs, Exhibit 2). Development on surrounding parcels included a residential subdivision, shopping centers, city streets, and a firework stand. Several anthropogenic disturbances were evident within the Study Area, including several dirt roads that bisect the site and provide human access, small dirt mounds located on the western side of the Study Area that indicate prior ground disturbance, trash dumping, wind-blown waste originating from Highway 395, and disturbances to soils and vegetation due to off-highway vehicle recreation. The amount of recently deposited trash, fresh human footprints, and bicycle tracks on and adjacent to the Study Area indicated that the site is regularly accessed by humans.

2.2 - Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) depicts all soil types within the Study Area. The WSS indicates that the soils on the site (2.2 acres) consist entirely of Cajon Sand (Exhibit 3). The Cajon series consists of very deep, somewhat excessively drained soils with negligible to low runoff and rapid permeability. Cajon soils are formed in sandy alluvium from dominantly granitic rocks and occur on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces.[1]

2.3 - Hydrology

The Study Area is located within the Mojave River watershed. The Mojave River watershed encompasses approximately 4,500 square miles and is located entirely within San Bernardino County.[2] The incorporated cities of Victorville, Hesperia, Apple Valley, and Adelanto are located within this watershed.

2.4 - Vegetation

One natural vegetation community, creosote bush–white bursage scrub, dominates the Study Area. Disturbed, bare areas that do not support natural vegetation communities are also present within the Study Area, including several trails and denuded areas adjacent to Seneca Road and Highway 395. A disturbed ephemeral drainage runs parallel to Highway 395 and bisects the Study Area (Exhibit 4).

[1] United States Department of Agriculture (USDA), Natural Resources Conservation Service. 2020. Web Soil Survey 3.3.2. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed November 2020.

[2] Mojave River Watershed Group. 2020. The Mojave River. Website: https://www.mojaveriver.org/app_pages/view/41. Accessed December 2020.

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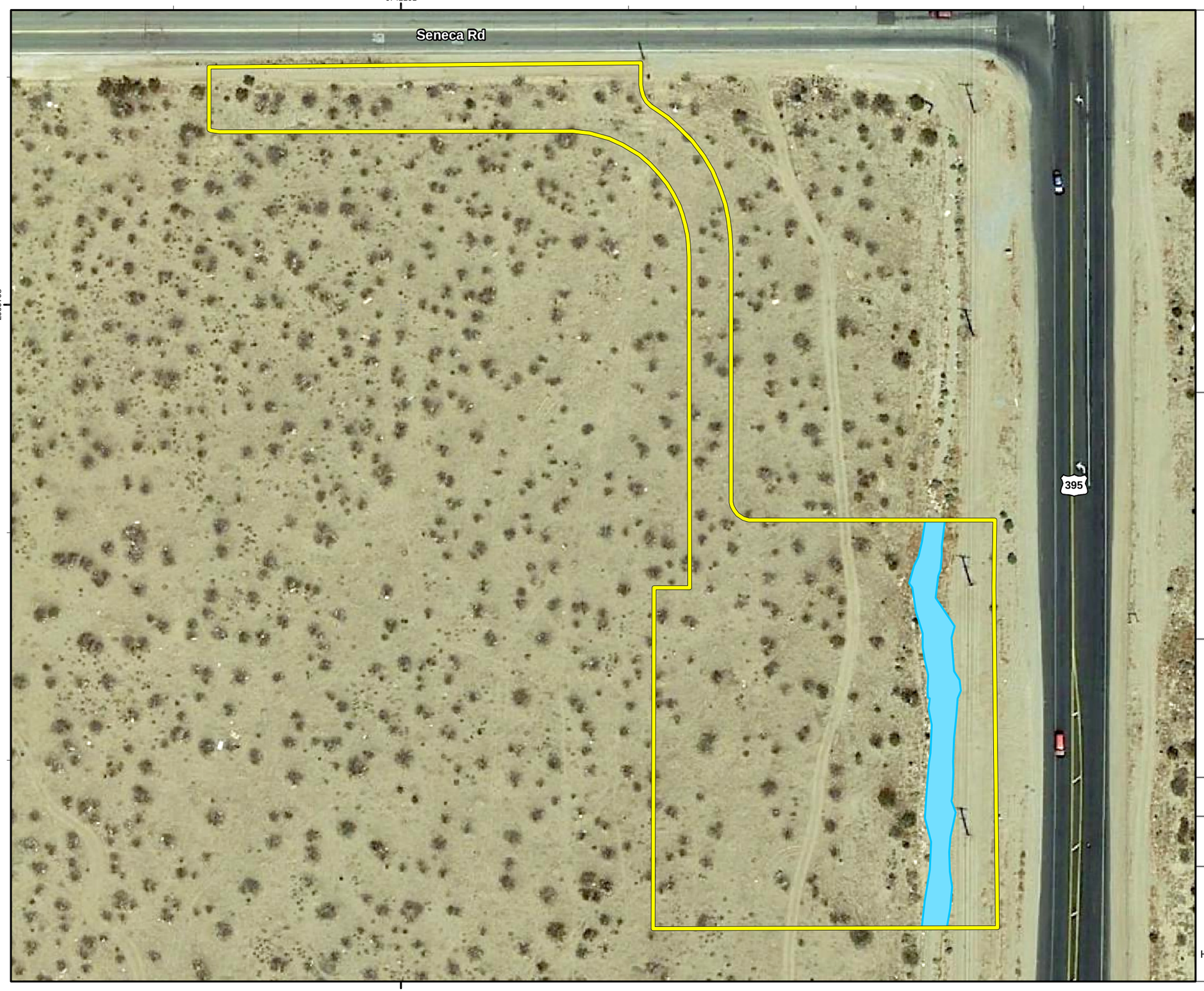

Legend

- Project Site
- Potential Water of the State

Waters of the State and USACE Jurisdiction

ID	Avg width (ft)	Length (ft)	Area (sqft)	Acres
1	17.0	295.2	5,399.5	0.12

FIRSTCARBON SOLUTIONS™

70 35 0 70 Feet

1 inch = 70 feet

UTM Zone 11N, NAD 83
T05N R05W Sec21

Adelanto Quadrangle
HUC 8: 18090208

Data Sources: Google Earth Aerial Imagery

Delineator(s): K. Derby
Map Preparer: K. McCracken

Delineation Date: 12/03/2020

Exhibit 4
Wetland Delineation Map

3K1 CONSULTING
HIGHWAY 395 AND SENECA ROAD QUICK N CLEAN CAR WASH
JURISDICTIONAL DELINEATION

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2.4.1 - Creosote Bush–White Bursage Scrub—1.71 Acres

Most of the Study Area is dominated by creosote bush–white bursage scrub vegetation community. This vegetation community is characterized by a shrub canopy dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Other species that may be found in this community in the vicinity of the Study Area include cheesebush (*Ambrosia salsola*), fourwing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*), allscale saltbush (*Atriplex polycarpa*), sweetbush (*Bebbia juncea*), California croton (*Croton californicus*), silver cholla (*Cylindropuntia echinocarpa*), branched pencil cholla (*Cylindropuntia ramosissima*), brittlebush (*Encelia farinosa*), Acton encelia (*Encelia actoni*), ephedra (*Ephedra* spp.), rubber rabbitbrush (*Ericameria nauseosa*), California buckwheat (*Eriogonum fasciculatum*), winterfat (*Krascheninnikovia lanata*), Anderson thornbush (*Lycium andersonii*), Mojave indigo bush (*Psorothamnus arborescens*), bladdersage (*Scutellaria mexicana*), and Joshua tree. This vegetation community can be found in desert washes and rills, alluvial fans, bajadas, valleys, basins, upland slopes, mesas, and erosional highlands. Soils are well-drained, alluvial, colluvial, sandy, and sometimes underlain by a hardpan that may be calcareous, igneous and/or covered with desert pavement.[3]

Within the Study Area, this community was degraded due to several anthropogenic disturbances, but creosote bush–white bursage persists in areas that were less disturbed. Other shrubs, including fourwing saltbush, allscale saltbush, rubber rabbitbrush, and winterfat were present in lower numbers. The understory was dominated by non-native annual species, including Sahara mustard (*Brassica tournefortii*), prickly Russian thistle (*Salsola tragus*), common sow thistle (*Sonchus oleraceus*), red brome (*Bromus madritensis* ssp. *rubens*), cheatgrass (*Bromus tectorum*), redstem filaree (*Erodium cicutarium*), and Mediterranean grass (*Schismus barbatus*). Other native, weedy, annual species included telegraph weed (*Heterotheca grandiflora*) and common horseweed (*Conyza canadensis*). Other herbaceous native species included Booth's desert primrose (*Eremothera boothii* ssp. *desertorum*), desert woollystar (*Eriastrum eremicum*), bristly fiddleneck (*Amsinckia tesellata*), and a pepperweed (*Lepidium* sp.).

2.4.2 - Disturbed—0.38 Acre

Disturbed land is classified as areas that have been physically disturbed by previous human activities and are no longer recognizable as a native or naturalized vegetation association. but which continue to retain a soil substrate. Vegetation present in disturbed areas is nearly exclusively composed of non-native plant species such as non-native annual species or ornamentals. Examples of disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home-sites.

Within the Study Area, disturbed areas were observed along the road shoulder bordering Highway 395 and Seneca Road, and several dirt roads that bisect the Study Area. These areas support sparse cover by annual weed species, including prickly Russian thistle, telegraph weed, common sow thistle, common horseweed, red brome, and Chilean brome (*Bromus catharticus* var. *elatus*).

[3] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento.

2.4.3 - Disturbed Ephemeral Drainage—0.12 Acre

A disturbed ephemeral drainage was observed on within the Study Area and adjacent and parallel to the Highway 395 road shoulder (Exhibit 4). This habitat shows evidence of ephemeral water flow from south to north and this drainage is flanked by clumps of fourwing saltbush, allscale saltbush, and rubber rabbitbrush along its banks and in the channel itself. The channel itself is littered with trash and other man-made debris likely as a consequence of being located adjacent to Highway 395.

SECTION 3: REGULATORY SETTING

3.1 - Federal: Clean Water Act

The USACE administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States.

As of the date this report was updated (August 2022), the United States Environmental Protection Agency (EPA) and USACE (hereafter the agencies) are in receipt of the U.S. District Court for the District of Arizona's August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, these agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.[4]

Therefore, since the agencies are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice, our analysis follows 40 Code of Federal Regulations 230.3(s), which defines "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
   a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   c) Which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds

[4] United States Environmental Protection Agency (EPA). 2022. https://www.epa.gov/wotus/current-implementation-waters-united-states. Accessed August 30, 2022.

as defined in 40 Code of Federal Regulations 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

"Wetland" refers to areas that are inundated or saturated by surface or groundwater 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. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above.

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the acreage involved, the purpose of the proposed fill, and other factors. Additionally, Section 401 of the CWA states that "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, applicants seeking to fill waters of the United States are required to obtain a CWA Section 401 Water Quality Certification from the RWQCB.

3.2 - State: California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)). In 2019, the California State Water Resources Control Board (State Water Board) published the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) to guide wetland waters of the State determinations and the permitting process.[5]

3.3 - State: Sections 1600-1616 of the California Fish and Game Code

Sections 1600-1607 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration 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 in the Notification and, if necessary, prepares a Lake or Streambed Agreement that includes measures to protect fish and wildlife resources.

[5] California State Water Resources Control Board (State Water Board). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. April 2, 2019.

SECTION 4: METHODS

FCS Biologist, Alec Villanueva, surveyed the Study Area on December 3, 2020, as described in this section.

4.1 - Wetlands

The presence/absence of wetlands was determined based on the requirements of the Corps of Engineers Wetlands Delineation Manual and revised procedures in the Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Arid West Region*.[6,7] These procedures include standards that define wetlands, including specific saturation and/or ponding regimes, and evaluation of hydrophytic vegetation, hydric soils, and wetland hydrology. Wetland indicator status of vegetation follows the *2018 National Wetland Plant List for the Arid West Region*.[8]

4.2 - Non-wetland Drainage Channels

Drainage channels were determined through presence of bed, bank, and ordinary high water mark (OHWM); hydrology; and hydrological connectivity. The OHWM is determined and characterized using definitions and guidance of *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*.[9] A discussion of what constitutes a potentially jurisdictional "tributary," and which features, such as features without a significant nexus, may be excluded from the definition of waters of the United States is provided in Section 5, below

Additionally, the top of bank of all channels were documented to aid the determination of dimensions of waters of the State.

4.3 - Additional Background Information Review

Additional relevant information about the Study Area was reviewed including current and historical aerial imagery, the Watershed Assessment, Tracking and Environmental Results System (WATERS), and the United States Department of Agriculture (USDA), NRCS Climate Analysis for Wetlands Tables (WETS Tables).[10,11,12] Average precipitation data was gathered from the nearest WETS-listed station in Victorville, California over a 30-year period (Appendix A).

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6 Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1.

7 United States Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28.

8 The National Wetland Plant List – Arid West Version 1. 2018. United States Army Corps of Engineers.

9 Lichvar, R.W. and S.M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.

10 United States Environmental Protection Agency (EPA). Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed June 2020.

11 United States Department of Agriculture (USDA), Natural Resources Conservation Service. 2020. Web Soil Survey 3.3.2. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed June 2020.

12 United States Department of Agriculture (USDA), Natural Resources Conservation Service. 1997. Part 650 Engineering Field Handbook - Chapter 19: Hydrology Test for Wetland Determination.

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SECTION 5: RESULTS

5.1 - Climatic Conditions

The average annual rainfall for the City of Adelanto is approximately 5.42 inches. Precipitation falls primarily as rain, with the majority of precipitation events occurring between November and March. The average rainfall for the month of December is approximately 1.03 inches.[13] To date, the Study Area has received below-average rainfall during the current annual rainfall year (November 2020 to March 2021) (Appendix A). The weather during the December 3, 2020, site visit was sunny and breezy with an average temperature of 55°F (degrees Fahrenheit).

5.2 - Aquatic Features

Aquatic Features are shown in Exhibit 4. Dimensions of all aquatic features occurring within Study Area boundaries are presented in Table 1.

Table 1: Summary of Aquatic Features within the Study Area

Map Feature	Length (linear feet)	Average Width Top of Bank (linear feet)	Area (square feet)	Area (acre)
Disturbed ephemeral drainage	295.2	17	5,399.5	0.12

5.2.1 - Disturbed Ephemeral Drainage

A disturbed ephemeral drainage channel is present within the Study Area adjacent and parallel to the Highway 395 road shoulder. The drainage enters the Study Area via a culvert located approximately 620 feet south of the Study Area and flows northward toward Seneca Road. Within the Study Area, the channel measures approximately 295.2 feet in length, with an average width of 17 feet and an average depth of 3 feet. The drainage channel was dry at the time of the survey, which is expected for the time of year.

The channel is flanked by clumps of fourwing saltbush, allscale saltbush, and rubber rabbitbrush along its banks and to a lesser extent within the channel itself. However, no hydrophytic plant species were observed in the vegetated drainage channel. The drainage shows evidence of ephemeral water flow including steep defined banks as well as a transition from coarser to finer sediments as you move away from the low-flow channel and toward the banks of the channel. In some areas the banks showed evidence of slight scouring. Drift deposits were also present but were limited to fine debris, given the small size and low flow of the channel in question. Representative photos of the channel are included in Appendix B.

[13] United States Department of Agriculture (USDA), Natural Resources Conservation Service. 1997. Part 650 Engineering Field Handbook - Chapter 19: Hydrology Test for Wetland Determination.

Upon reaching Seneca Road, the channel disappears and seems to flow across the road into the dirt parking lot on the north side of Seneca Road. No obvious connection to any downstream water was apparent based on field observations or satellite imagery. Satellite imagery shows that the drainage in question may have originally been created by natural erosion as a result of runoff originating from the strip mall located south of the Study Area.[14]

5.3 - Proposed Jurisdictional Determination

5.3.1 - Proposed USACE Jurisdiction

For the purpose of this analysis, FCS assumes that the August 30, 2021, action by the U.S. District Court for the District of Arizona to vacate and remand the Navigable Water Protection Rule means that current federal jurisdictional determinations of what constitutes a water of the United States follows implementation and interpretation of *Rapanos v. United States* and C*arabell v. United States*.

Per USACE and EPA guidance related to these cases, as summarized in a Memorandum dated December 2, 2008, and entitled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States and Carabell v. United States*," FCS assumes that the USACE will decide jurisdiction over non-navigable tributaries that are not relatively permanent, based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water.

Given that the drainage channel delineated within the Study Area does not appear to be hydrologically connected to a downstream water, a significant nexus between the drainage and a traditional navigable water is not likely present.

On this basis, the drainage channel as shown on Exhibit 4 is not likely a potential water of the United States. Note that a binding significant nexus analysis and final JD can only be made by the USACE and/or the EPA following verification.

5.3.2 - Regional Water Quality Control Board Jurisdiction

Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)), and are under the jurisdiction of the RWQCB. Therefore, FCS proposes that the disturbed ephemeral drainage within the Study Area as shown on Exhibit 4 would fall under the jurisdiction of the RWQCB. This proposed JD is preliminary until confirmed by the RWQCB.

5.3.3 - California Department of Fish and Wildlife Streambed Alteration Program Considerations

Because of the presence of bed and banks, it is expected that the CDFW will assert regulatory oversight over potential impacts on the drainage channel and associated vegetation pursuant to California Fish and Game Code Section 1602 *et seq*. (Streambed Alteration Program). It is expected

[14] Google Earth Pro. 2020. Map of Adelanto, California. Coordinates: 34°30'45.32"N, 117°23'59.26"W. Website: https://www.google.com/earth/. Accessed December 9, 2020.

that the CDFW will classify all vegetation below top of bank as “riparian vegetation.” It is expected that the CDFW will require a Notification of Streambed Alteration and subsequent Streambed Alteration Agreement for any work that could adversely affect the drainage on-site and associated riparian vegetation.

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SECTION 6: CONCLUSION

The disturbed ephemeral drainage present within the Study Area covers an area of approximately 5,400 square feet (0.12 acre) (Exhibit 4). No additional aquatic features were observed within the Study Area. Based on the analysis presented herein, there is no evidence that the drainage within the Study Area would contribute surface flows to another traditional navigable water downstream. As such, this feature is potentially excluded from USACE jurisdiction based on a lack of a significant nexus to a traditional navigable water. However, this feature potentially qualifies as a water of the State, regulated by both the RWQCB and CDFW.

The findings and conclusions presented in this report, including the location and extent of waters subject to regulatory jurisdiction, represent the professional opinion of FCS. These findings and conclusions should be considered preliminary until confirmed by the USACE and RWQCB.

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Appendix A:
WETS Precipitation Data

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Monthly Total Precipitation for VICTORVILLE, CA

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1990	1.05	0.51	0.06	0.06	0.86	0.03	0.02	1.39	0.12	0.00	0.18	0.00	4.28
1991	1.04	1.35	3.25	0.00	0.04	0.00	0.20	0.00	0.32	0.42	0.27	1.43	8.32
1992	1.46	2.51	2.59	0.17	0.02	0.00	0.31	0.00	0.00	0.36	0.00	3.68	11.10
1993	4.72	2.87	M	0.00	0.00	0.85	0.00	M	0.00	0.01	0.19	0.41	M
1994	0.29	0.49	1.28	0.36	0.50	0.00	0.00	0.12	0.00	0.04	0.19	0.68	3.95
1995	2.91	0.62	2.63	0.12	0.07	0.03	0.03	0.03	0.17	0.00	0.00	0.62	7.23
1996	0.47	1.48	0.15	0.01	0.05	0.00	0.44	0.02	0.00	0.24	0.55	0.35	3.76
1997	M	0.00	0.01	0.00	0.34	0.06	0.00	0.00	1.36	0.01	0.43	2.65	M
1998	0.51	5.39	1.01	0.33	0.73	0.00	0.00	0.64	1.08	0.00	0.34	0.10	10.13
1999	0.42	0.49	0.06	0.70	0.31	0.20	1.28	0.00	0.00	0.00	0.00	0.00	3.46
2000	0.03	1.23	0.17	0.84	0.00	0.00	0.00	M	0.00	0.18	0.00	0.00	M
2001	1.54	1.91	0.70	0.30	0.01	0.00	0.27	0.00	0.00	0.15	0.63	0.52	6.03
2002	0.12	0.00	0.27	0.18	0.00	0.00	0.00	0.00	0.00	0.05	0.13	0.53	1.28
2003	0.00	3.64	1.30	1.18	0.14	0.00	0.55	0.00	0.00	0.00	1.24	0.45	8.50
2004	0.05	1.95	0.11	0.23	0.00	0.00	0.00	0.13	0.00	3.32	1.39	2.16	9.34
2005	2.20	4.17	0.43	0.05	0.00	M	0.74	0.88	0.43	1.48	0.00	0.13	M
2006	0.37	0.45	0.83	0.68	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.14	2.49
2007	0.07	0.18	M	0.12	0.00	0.00	0.00	0.00	0.02	M	M	0.92	M
2008	1.30	0.10	0.00	0.00	0.02	0.00	0.00	0.00	0.03	M	M	M	M
2009	0.04	1.30	0.02	0.00	0.00	0.18	0.00	0.03	0.00	0.00	0.20	0.53	2.30
2010	4.34	2.02	0.26	0.70	0.00	0.00	0.00	0.00	0.00	1.65	0.02	5.35	M
2011	0.45	1.19	1.56	0.00	0.00	0.00	0.53	0.00	0.06	0.00	0.64	0.37	4.80
2012	0.07	0.21	0.63	0.84	0.00	0.00	0.67	1.17	0.04	0.00	0.06	0.74	4.43
2013	0.46	0.28	M	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.91	0.21	M
2014	0.00	0.01	0.54	0.10	0.00	0.00	0.00	0.04	0.03	0.00	0.13	0.95	1.80
2015	1.00	0.26	0.00	0.00	0.00	0.00	1.34	0.00	1.17	0.36	0.20	0.29	4.62
2016	1.04	0.00	0.56	0.62	0.00	0.00	0.00	0.00	0.00	0.44	0.11	2.23	5.00
2017	1.71	1.91	0.00	0.00	0.05	0.00	0.00	0.09	0.05	0.00	0.00	0.00	3.81
2018	0.69	0.14	0.78	0.00	0.03	0.00	0.00	0.00	0.00	1.02	0.19	1.60	4.45
2019	0.88	1.47	0.72	0.11	0.37	0.00	0.00	0.00	0.00	0.00	1.71	2.84	8.10
2020	0.00	0.00	2.05	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.02	M	M
Mean	0.97	1.23	0.78	0.32	0.11	0.05	0.21	0.16	0.16	0.34	0.34	1.03	5.42

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Appendix B:
Site Photographs

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Photograph 1: Drainage channel looking south from southern boundary of the project site.

Photograph 2: Drainage channel looking north from southern boundary of the project site.

Photograph 3: Drainage channel looking south from middle of the project site.

Photograph 4: Drainage channel looking south from northern boundary of the project site.

Photograph 5: Channel profile showing sediment and small drift deposits.

Photograph 6: End of visible drainage channel looking south. Photo taken from Seneca Road (off-site).

Photograph 7: Off-site culvert located south of the project site. Culvert is obscured by shrubs*. Standing water is present near culvert. Photo is facing southeast.

Appendix C:
Wetland Delineation Data Form

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Project: Adelanto Quick-N-Clean
Project Number: 5019.0002
Stream: unamed drainage
Investigator(s): Alec Villanueva

Date: 12/3/20 **Time:** 9:45
Town: Adelanto **State:** CA
Photo begin file# **Photo end file#**

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

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details: SW of intersection of Seneca Rd & HWY 395
Projection: **Datum:**
Coordinates: 34.512601°N 117.399766°W

Notes: Lots of litter and debris within channel. Vegetation along east bank seems to cleared away from roadway.

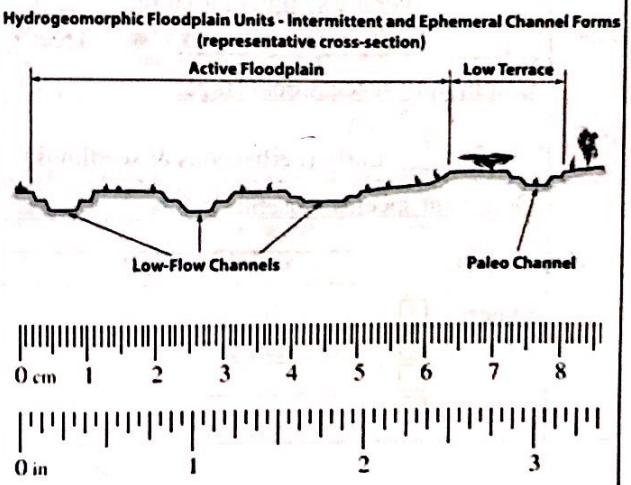
Brief site description: Site lies adjacent to west shoulder of HWY 395. Banks are highly incised. Drainage shows evidence of previous disturbance and is littered with trash and other debris.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates:
- ☑ Topographic maps
  Scale:
- ☐ Geologic maps
- ☑ Vegetation maps
- ☑ Soils maps
- ☑ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ Clinometer / level
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

The dominant Wentworth size class that imparts a characteristic texture to each zone of a channel cross-section is recorded in the average sediment texture field under the characteristics section for the zone of interest.

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



☑ **Walk the channel and floodplain within the study area to get an impression of the vegetation and geomorphology present at the site. Record any potential anthropogenic influences on the channel system in "Notes" above.**

☑ **Locate the low-flow channel (lowest part of the channel). Record observations.**

Characteristics of the low-flow channel:

Average sediment texture: pebble

Total veg cover: 5 % Tree: 0 % Shrub: 5 % Herb: 0 %

Community successional stage:

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

Dominant species present: rabbit brush (Ericameria nauseosa) allscale saltbrush (Atriplex polycarpa), fourwing saltbush (Atriplex canescens)

Other: ☐ ☐ ☐ ☐

☑ **Walk away from the low-flow channel along cross-section. Record characteristics of the low-flow/active floodplain boundary.**

Characteristics used to delineate the low-flow/active floodplain boundary:

☑ Change in total veg cover ☐ Tree ☑ Shrub ☑ Herb
☐ Change in overall vegetation maturity
☐ Change in dominant species present
☐ Other ☑ Presence of bed and bank
☑ Drift and/or debris
☐ Other:
☐ Other:

☑ **Continue walking the channel cross-section. Record observations below.**

Characteristics of the low-flow channel:

Average sediment texture: fine sand

Total veg cover: 75 % Tree: % Shrub: 70 % Herb: 5 %

Community successional stage:

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

Dominant species present: rabbit brush saltbrush

Other: ☑ red brome
☑ creosote bush (Larrea tridentata)
☐
☐

☑ **Continue walking the channel cross-section. Record indicators of the active floodplain/low terrace boundary.**

Characteristics used to delineate the active floodplain/ low terrace boundary:

- ☑ Change in average sediment texture
- ☑ Change in total veg cover ☐ Tree ☑ Shrub ☑ Herb
- ☐ Change in overall vegetation maturity
- ☐ Change in dominant species present
- ☐ Other ☑ Presence of bed and bank
  - ☑ Drift and/or debris
  - ☐ Other: _____
  - ☐ Other: _____

☑ **Walk the active floodplain/low terrace boundary both upstream and downstream of the cross-section to verify that the indicators used to identify the transition are consistently associated the transition in both directions.**

Consistency of indicators used to delineate the active floodplain/low terrace boundary:

- Y ☑ N ☐ Change in average sediment texture
- Y ☑ N ☐ Change in total veg cover ☐ Tree ☑ Shrub ☑ Herb
- Y ☐ N ☑ Change in overall vegetation maturity
- Y ☐ N ☐ Change in dominant species present
- Y ☐ N ☐ Other: Y ☑ N ☐ Presence of bed and bank
  - Y ☑ N ☐ Drift and/or debris
  - Y ☐ N ☐ Other: _____
  - Y ☐ N ☐ Other: _____

☑ **If the characteristics used to delineate the active floodplain/low terrace boundary were NOT consistently associated with the transition in both the upstream and downstream directions, repeat all steps above.**

☑ **Continue walking the channel cross-section. Record characteristics of the low terrace.**

Characteristics of the low terrace:

Average sediment texture: granule

Total veg cover: 75 % Tree: ____ % Shrub: 50 % Herb: 15 %

Community successional stage:

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

Dominant species present: creosote bush, white bursage (Ambrosia dumosa)

Other:

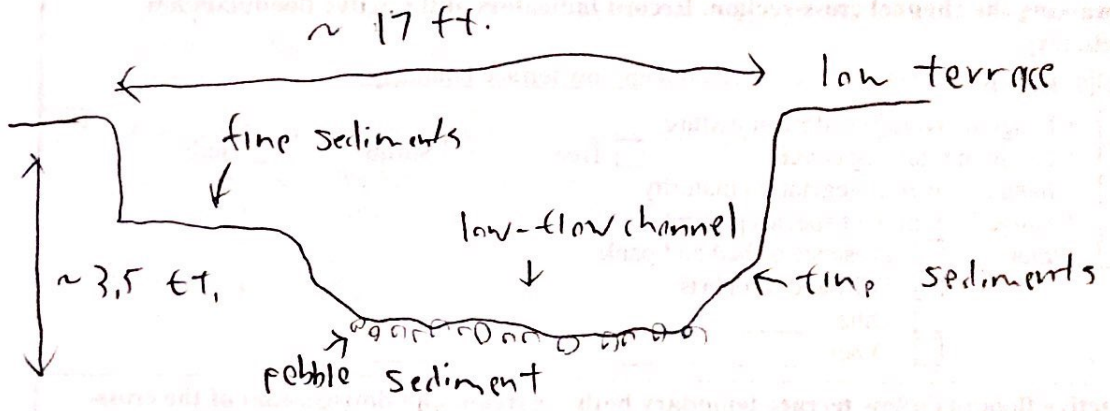
- ☑ red brome
- ☑ rabbit brush
- ☐ salt brush
- ☐

☑ **If characteristics used to delineate the active floodplain/low terrace boundary were deemed reliable, acquire boundary.**

Active floodplain/low terrace boundary acquired via:

- ☑ Mapping on aerial photograph
- ☐ Digitized on computer
- ☑ GPS
- ☐ Other: _____

#1



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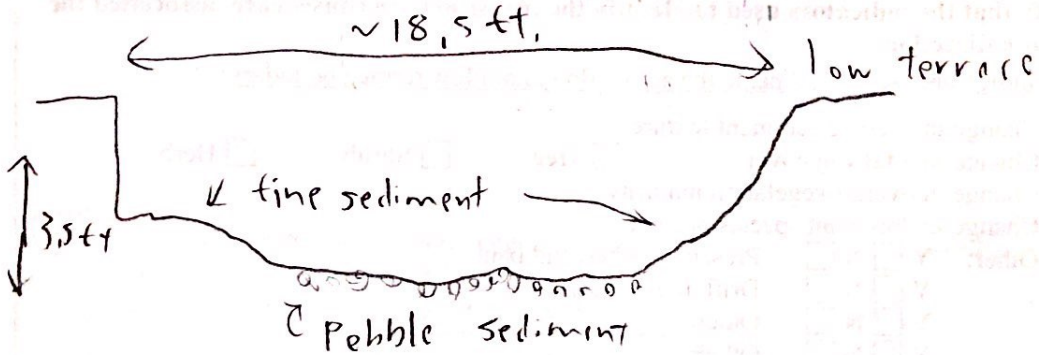

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