Biological Resource Assessment for the Desert Meadows Project

Prepared for:

Guardian Capital
5780 Fleet Street, Suite 225
Carlsbad, CA 92008
Contact: Glen Powles



Prepared by:

Carlson Strategic Land Solutions
327134A Paseo Espada, Suite 323
San Juan Capistrano, CA 92675
Contact: Brianna Bernard

July 2023

TABLE OF CONTENTS

1.0 Introduction 1

1.1 Purpose and Approach 1
1.2 Project Terms 1
1.3 Project Location 1
1.4 Existing Conditions and Project History 2

2.0 Project Description 2

3.0 Regulatory Context 6

3.1 Federal Laws and Regulations 6
3.1.1 Federal Endangered Species Act (FESA) 6
3.1.2 Migratory Bird Treaty Act (MBTA) 6
3.1.3 Federal Clean Water Act (CWA) 7
3.1.4 Wetlands and Other Waters of the United States 7
3.2 California State Laws and Regulations 9
3.2.1 California Endangered Species Act (CESA) 9
3.2.2 California Fish and Game Code Section 1600-1616 9
3.2.3 California Fully Protected Species 9
3.2.4 California Fully Protected Species 10
3.2.5 Protection of Birds 10
3.2.6 Porter-Cologne Water Quality Act – California Code, Division 710
3.2.7 California Native Plant Protection Act 10
3.2.8 Sensitive Plant Communities 10
3.2.9 California Native Plant Society 11
3.2.10 Native Plant Protection Act (NPPA) 11
3.3 Regulatory Permits 11

4.0 Survey and Methods 11

4.1 Literature Review 12
4.1.1 Sensitive Plant Communities 12
4.1.2 Critical Habitat 12
4.1.3 Special Status Plants and Wildlife 13
4.2 Biological Survey 15
4.2.1 General Biological Survey 15
4.2.2 Regional Connectivity/Wildlife Movement 16
4.3 Jurisdictional Waters 17

5.0 Results 21

5.1 Vegetation Communities 21
5.1.1 Disturbed 23
5.1.2 Developed 23
5.2 Special-Status Vegetation Types 23
5.3 Plants 23
5.4 Critical Habitat 24
5.5 Wildlife 24
5.5.1 Wildlife Species Observed or Detected 26
5.6 Regional Connectivity/Wildlife Movement 26
5.7 Burrowing Owl Habitat Assessment 27
5.8 Jurisdictional Areas 28
5.8.1 Summary of Jurisdictional Waters 28
5.8.2 Waters of the United States 28
5.8.3 Waters of the State 28
5.9 Soils Mapping 28

6.0 Threshold of Significance 31

7.0 Significance Determination and Proposed Mitigation 32

7.1 Regulatory Setting 32
7.2 Project Related Impacts 32
7.2.1 Impacts to Vegetation Communities 33
7.2.2 Impacts to Jurisdictional Features 35
7.3 Threshold BIO - A 35
7.3.1 Sensitive Plant Species 35
7.3.2 Sensitive Wildlife Species 37
7.3.3 Critical Habitat 38
7.4 Threshold BIO- B 38
7.5 Threshold BIO - C 38
7.6 Threshold BIO - D 39
7.6.1 Wildlife Movement 39
7.6.2 Migratory Birds and Raptors 39
7.7 Threshold BIO - E 40
7.8 Threshold BIO - F 40

8.0 Cumulative Impacts 41

9.0 Literature Cited 42

TABLES

Table 1. Vegetation Community Observed 21
Table 2. Vegetation Community Impacts 33

FIGURES

Figure 1: Regional Location Map 3
Figure 2: Study Area Map 4
Figure 3: Site Plan 5
Figure 4: CNDDB Occurrences 20
Figure 5: Vegetation Community Mapping 22
Figure 6: Jurisdictional Waters Map 29
Figure 7: Soils Map 30
Figure 8: Vegetation Community Impact Map 34
Figure 9: Jurisdictional Waters Impact Map 36

APPENDICES

Appendix A Representative Photographs of Community Classification

Appendix B Special Status Plant Species Potential Occurrence Determination

Appendix C Special Status Wildlife Species Potential Occurrence Determination

ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

BLM	United States Bureau of Land Management
BMPs	Best Management Practices
CDF	California Department of Forestry and Fire Protection
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CRPR	California Rare Plant Rank
CSLS	Carlson Strategic Land Solutions
CWA	Clean Water Act
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
FM	Facilities Management
GIS	Geographic Information System
GPS	Global Positioning System
MBTA	Migratory Bird Treaty Act
MCVII	The Manual of California Vegetation
MMRP	Mitigation, Monitoring, and Reporting Program
MSL	mean sea level
NEPA	National Environmental Protection Act
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark
Project	Desert Meadows Project
RWQCB	Regional Water Quality Control Board
SAA	Section 1600 Streambed Alteration Agreement
SWPPP	Storm Water Pollution Prevention Plan

U.S.	United States
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WQC	Section 401 Water Quality Certification

1.0 Introduction

Carlson Strategic Land Solutions (CSLS) prepared this Biological Resource Assessment for Guardian Capital for the Desert Meadows Project (Project) in the City of Lancaster. The Biological Resource Assessment for the approximately 20-acre Project site and the surrounding 300-feet, collectively known as the "Study Area," incorporates the findings from a biological field survey and jurisdictional delineation conducted on March 3, 2023.

1.1 Purpose and Approach

This report provides a summary of the conditions present during the March 3, 2023 field survey, which includes an assessment of the potential presence of sensitive biological resources, an analysis of the potential impacts to those resources due to Project implementation and proposed mitigation. This assessment describes the current biological resources present within the Study Area including habitat communities, jurisdictional waters, and the potential occurrence of listed and special status plant and wildlife species. The potential biological significance of site construction and development in view of federal, state, and local laws and regulations are also identified in this report. The report also recommends, as appropriate, Best Management Practices (BMPs) and avoidance and minimization measures to reduce or avoid potential impacts. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. This assessment was prepared based upon results of a literature review and field survey.

1.2 Project Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: the approximately 20-acre Desert Meadows Project site and proposed parking and pedestrian path.
- Study Area: the area evaluated during the field survey, including the approximately 20-acre Project site and an approximate 500-foot buffer area surrounding the Project site.
- Project Vicinity: intended to be a general term to describe the broader area surrounding the Study Area.

1.3 Project Location

The Study Area is located in the City of Lancaster on the northeast corner of 30th street west and West Lancaster Boulevard (Figures 1 and 2). The Project site is located north of West Lancaster Boulevard, east of 30th Street West, south of W Avenue I and west of Valley Central Way. The Study Area is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Lancaster West* Quadrangle.

Access to the Project site is off West Lancaster Boulevard.

1.4 Existing Conditions and Project History

The Project site consists of previously graded disturbed area. In review of the historical areas of the Project site, the area was graded between 1987 and 1990 with the construction of the Flood Control Channel that is adjacent to the Project site.

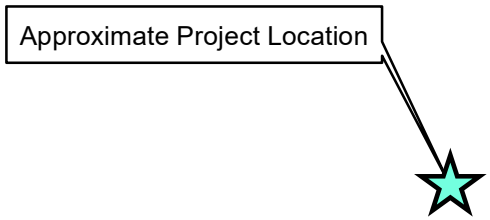
2.0 Project Description

The Project proposes to subdivide into 2 residential lots. The first lot would consist of 12.73 acres and proposes to build 324-unit luxury apartment complex. The second 7.37 acre lot proposes the construction of 105-unit townhomes. The proposed Project is shown on Figure 3.

The apartment complex is located on the corner of 30th Street West and W. Lancaster Blvd. The primary gated entry is proposed from W. Lancaster Blvd. Two emergency vehicle access (EVA) driveways are proposed, one from 30th Street West and the other from W. Lancaster Blvd. The apartments are designed as 3-story walk up luxury apartments. A total of 654 parking spaces is proposed.

The second residential lot proposed for 105 townhomes is located just east of the apartment complex along W. Lancaster Blvd. and just west of the existing flood control channel. The primary gated entry is proposed from W. Lancaster Blvd. and a secondary EVA is also provided from W. Lancaster Blvd. Each townhome includes 2 parking spaces within an attached and enclosed garage.

All wet and dry utilities will connect to existing facilities within W. Lancaster Blvd. and 30th Street West. Detention and water quality facilities are proposed on the project site with a connection to the flood control channel is proposed.



GIS Prepared By:
Carlson SLS

Created: May 2, 2023

0 1,250 2,500 5,000 7,500 Feet

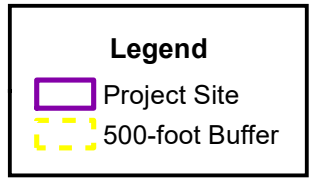
1 inch = 5,000 feet

Data Source: Bing Maps

Desert Meadows Project

Regional Location Map

FIGURE 1



GIS Prepared By:
Carlson SLS

Created: May 2, 2023

0 87.5 175 350 525 700 Feet

1 inch = 350 feet

Data Sources: Bing Maps

Desert Meadows Project

Study Area Map

FIGURE 2

DESERT MEADOWS

APARTMENTS:

ACREAGE	**12.73**
TOTAL UNITS	**324**
TOTAL PARKING	**654**
AMENITIES (S.F.)	**45,600**

TOWNHOMES:

ACREAGE	**7.37**
TOTAL UNITS	**96**
TOTAL PARKING	**233**
AMENITIES (S.F.)	**26,100**

30TH ST. W.

W. LANCASTER BLVD.

DESERT MEADOWS APTS. & TOWNHOMES

GUARDIAN CAPITAL

CONCEPTUAL SITE PLAN - OVERALL

SCALE : 1" = 50'-0" ON 36x24 SHEET

August 3, 2023

Figure 3

3.0 Regulatory Context

The following is a list of the key local, state, and federal laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from project impacts relevant to the Project.

3.1 Federal Laws and Regulations

3.1.1 Federal Endangered Species Act (FESA)

The Federal Endangered Species Act (FESA) of 1973 defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, unless properly permitted, it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the US Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action which could affect a federally listed plant or animal species, the property owner and agency are required to consult with USFWS pursuant to Section 7 of the Endangered Species Act (ESA) if there is a federal nexus, or pursuant to Section 10 of the ESA. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. All references to federally-protected species in this biological assessment include the most current published status or candidate category to which each species has been assigned by USFWS.

3.1.2 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, Federal permits issued for activities that potentially impact migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

3.1.3 Federal Clean Water Act (CWA)

The Clean Water Act (CWA), Section 401 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board administers the certification program in California. Section 404 establishes a permit program administered by the United States Army Corps of Engineers (Corps) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The Corps implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with Corps (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

3.1.4 Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and fall under the jurisdiction of several regulatory agencies. The Corps exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the Ordinary High-Water Mark (OHWM). The OHWM is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

The definition of waters of the United States has undergone several iterations, including a much more streamlined definition which was published and formally adopted in April 2020. However, in August 2021, the April 2020 Navigable Waters definition was challenged in the case Pascua Yaqui Tribe v. U.S. Environmental Protection Agency. In light of this case and subsequent order from US District Court for the District of Arizona, the U.S. Environmental Protection Agency (EPA) and Corps have halted implementation of the Navigable Waters Protection Rule from 2020 and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime. Then in March 2023 following a Supreme Court decision, the rule was once again changed and finalized to codify the pre-2015 definition with some revisions to the definition wetlands.

The March 2023 ruling codified the term waters of the United States to mean: (1) traditional navigable waters, the territorial seas, and interstate waters (''paragraph (a)(1) waters''); (2) impoundments of ''waters of the United States'' (''paragraph (a)(2) impoundments''); (3) tributaries to traditional navigable waters, the territorial seas, interstate waters, or paragraph (a)(2) impoundments when the tributaries meet either the relatively permanent standard or the significant nexus standard (''jurisdictional tributaries''); (4) wetlands adjacent to paragraph (a)(1) waters; wetlands adjacent to and with a continuous surface connection to relatively permanent paragraph (a)(2) impoundments or jurisdictional tributaries when the jurisdictional tributaries meet the relatively permanent standard; and wetlands adjacent to paragraph (a)(2) impoundments or jurisdictional tributaries when the wetlands meet the significant nexus standard (''jurisdictional adjacent wetlands''); and (5) intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) that meet either the relatively permanent standard or the significant nexus standard (''paragraph (a)(5) waters''). This rule also contains, at paragraph (b), the longstanding exclusions in the 1986 regulations, as well as additional exclusions based on well-established practice, from the definition of ''waters of the United States'' and, at paragraph (c), definitions for terms used in this rule.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by Corps as "those 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" (33 CFR 328.3[a]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present and, as outlined within the March 2023 ruling, have adjacency with relative permanent, standing or continuously flowing bodies of water with continuous connection to Waters of the US. Wetlands must meet the parameters as outlined above classified as a wetland by Corps.

It is important to note that the RWQCB definition of wetland was redefined, and the new definition went into effect May 28, 2020. The definition of a wetland is as follows: An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes, or the area lacks vegetation. This RWQCB modified three-parameter definition is similar to the federal definition in that it identifies three wetland characteristics that determine the presence of a wetland: wetland hydrology, hydric soils, and hydrophytic vegetation. Unlike the federal definition, however, the RWQCB wetland definition allows for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland.

Examples of waters that would be considered wetlands by the RWQCB definition, but not by the federal wetland definition, are non-vegetated wetlands, or wetlands characterized by exposed bare substrates like mudflats and playas, as long as they meet the three-parameters as described in the RWQCB definition. It is important to note that while the Corps may not designate a feature as a wetland, that feature could be considered a special aquatic site or other water of the U.S. by the Corps and potentially subject to Corps' jurisdiction.

3.2 California State Laws and Regulations

3.2.1 California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is "consistent" with the CESA under California Fish and Game Code (FGC) Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

3.2.2 California Fish and Game Code Section 1600-1616

Section 1602 of the California Fish and Game Code requires notifying CDFW prior to any project activity that might (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. If, after this notification, the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will need to be obtained. CDFW may then place conditions in the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

3.2.3 California Fully Protected Species

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

3.2.4 California Fully Protected Species

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

3.2.5 Protection of Birds

Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order 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." Activities that result in the abandonment of an active bird of prey nest may also be considered in violation of this code. In addition, California Fish and Game Code, Section 3511 prohibits the taking of any bird listed as fully protected, and California Fish and Game Code, Section 3515 states that is it unlawful to take any non-game migratory bird protected under the MBTA.

3.2.6 Porter-Cologne Water Quality Act – California Code, Division 7

The RWQCB also has jurisdiction over waters deemed "isolated" or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County v. Corps decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state and prospective dischargers are required to obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Under Section 401 of the CWA, the local RWQCB (for this Project, the Santa Ana RWQCB) must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

3.2.7 California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code §§ 1900–1913) requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. The California Native Plant Protection Act gives the CDFW the power to designate native plants as "Endangered" or "Rare" and prohibits the take of such plants with certain exceptions.

3.2.8 Sensitive Plant Communities

Sensitive plant communities include those habitat types considered sensitive by resource agencies, namely CDFW, due to their scarcity and/or their ability to support State and Federally-listed Endangered, Threatened, and Rare vascular plants, as well as several sensitive bird and reptile species. CDFW maintains a natural plant community list, the List of California Terrestrial Natural Communities. Sensitive natural

communities (also referred to by CDFW as 'rare', 'special-status', or 'special concern') are identified on the list by an asterisk and are considered high priority vegetation types (CDFW 2003; CDFW 2000).

3.2.9 California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for Threatened and Endangered by CDFW. CNPS has developed five categories of rarity, of which Ranks 1A, 1B, and 2 are particularly considered sensitive.

Sensitive species that occur or potentially could occur within the Study Area are based on one or more of the following: (1) the direct observation of the species within the Study Area during any field surveys; (2) a record reported in the CNDDB; and (3) the Study Area is within known distribution of a species and contains appropriate habitat.

3.2.10 Native Plant Protection Act (NPPA)

California's Native Plant Protection Act (NPPA) requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants (FGC Sections 1900-1913). Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

3.3 Regulatory Permits

This report is prepared pursuant to and in support of California Environmental Quality Act (CEQA), and any applicable regulatory permit applications, including the California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (SAA), Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification (WQC), United States Army Corps of Engineers (Corps) Section 404 permit, and United States Fish and Wildlife Service Section 7 Biological Opinion.

4.0 Survey and Methods

Preparation for this biological assessment began with a review of relevant available literature and review of historical biological documentation for the Study Area. This effort was followed by onsite field surveys to assess the existing habitat, map any onsite sensitive plant communities and jurisdictional waters, and determine whether special status plant and wildlife species occur or potentially occur within the Study Area.

4.1 Literature Review

The assessment began with a review of relevant available literature on the biological resources within the Study Area and Project Vicinity.

4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the criteria listed below.

- The habitat is recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the Corps pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the California Fish and Game Code.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

4.1.2 Critical Habitat

Under the ESA, the federal government is required to designate "critical habitat" for any species it lists under the ESA. Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. Section 3 of the ESA defines critical habitat as:

- The specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection.

- The specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

"Conservation" means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the

ESA is no longer necessary. Critical habitat receives protection under Section 7(a)(2) of the ESA through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Section 7(a)(2) also requires conferences on federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat.

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Study Area is within any species' designated Critical Habitat (USFWS 2022a). The USFWS regulatory mapping process for the designation of critical habitat is broad-based mapping exercise of areas that may or may not include constituent elements of the critical habitat designation. Due to this approach in mapping, large areas are designated as critical habitat regardless of the existing habitat, and as a result may include developed areas, such as buildings, roads, hardscape, and other such facilities, as well as natural habitats.

The constituent elements of the critical habitat designation consider the physical and biological features needed for life processes and successful reproduction of the listed species, including:

- Space for individual and population growth for normal behavior;
- Habitat cover or shelter;
- Food, water, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitat that is protected from disturbance or is representative of the historical geographic and ecological distribution of a species.

4.1.3 Special Status Plants and Wildlife

Species of plants and animals are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Plant and wildlife species are considered "special status" species if they meet any of the following criteria.

- Taxa with official status under ESA, CESA, and/or the NPPA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, the United States Forest Service (USFS), the United States Bureau of Land Management (BLM), and/or the California Department of Forestry and Fire Protection (CDF).

- Plants that meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
    - Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2) (CNPS 2023). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
    - Species that may warrant consideration on the basis of local significance or recent biological information.
    - Some species included on the CNDDB Special Plants, Bryophytes, and Lichens List (CDFW 2023g).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant and wildlife species. Special status plant and wildlife species that have the potential to occur within the immediate region of the Study Area were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Study Area, and included the following sources listed below:

- The CNDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants and wildlife that may exist within a two-mile radius of the Project site. A CNDDB search was performed by assessing a two-mile radius around the Study Area (CDFW 2023f). CNDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area (Figure 4).
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (USFWS 2023a).
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS 2023). A search for the USGS 7.5-Minute Topographic Map *San Bernardino South* and the surrounding eight quadrangles (*San Bernardino North, Harrison Mountain, Redlands, Sunnymead, Riverside East, Riverside West, Fontana, and Devore*) provided information regarding the distribution and habitats of special status vascular plants in the Project Vicinity.

- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review was used as a resource to better understand the biological resources potentially occurring within the Study Area. Although the inventory list of special status plant and wildlife species was not exhaustive of all species that might occur on the property, it provides a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is based on documented occurrences where surveys have taken place for individual projects; therefore, a lack of documented occurrence does not necessarily indicate that a given species is absent from the Study Area.

4.2 Biological Survey

4.2.1 General Biological Survey

Plant species were identified using plant field and taxonomical guides, such as The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al. 2012). Vegetation communities were characterized utilizing vegetation alliances in accordance with The Manual of California Vegetation, Second Edition (MCVII) (Sawyer et al. 2009). Where necessary, deviations were made on best professional judgment when areas did not fit into a specific habitat description provided by MCVII. Plant communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph and a Trimble R1 GNSS Receiver paired with the ARC Geographical Information System (ARCGIS) Collector Application was utilized during the survey. All plant species encountered during the field survey were identified and recorded in field notes. Information regarding the presence of suitable habitat and soils to support the species, known records or occurrence within the area, and known distribution and elevation range obtained from the relevant literature was used to determine presence or absence of sensitive species.

The biologist paid special attention to those habitat areas that had the potential to provide suitable habitat for special status plant and wildlife species. Aerial photographs and maps were used to assist in the delineation of plant community boundaries. Following field mapping, the plant communities were digitized, and the vegetation map was created.

General wildlife surveys were conducted on foot and with binoculars within the Study Area. All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Biologists also recorded signs of wildlife species including animal tracks, burrows, nests, scat, and remains. Binoculars were used to aid in the identification of observed wildlife. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. Photographs were taken to document existing conditions within the Study Area (Appendix A).

4.2.2 Regional Connectivity/Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallager 1989). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "meta-population." The long-term health of each deme within the meta-population is dependent upon its size and the frequency of interchange of individuals (immigration versus emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity.
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction.
- Serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions).
- Seasonal migration.
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these

terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

- Travel route: a landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

- Wildlife corridor: a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

- Wildlife crossing: a small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings are typically manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often "choke points" along a movement corridor.

4.3 Jurisdictional Waters

The following sources were reviewed to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, and their location within the watersheds associated with the Study Area, and other features that might contribute to federal or state jurisdictional authority located within watersheds associated with the Study Area:

- National Wetlands Inventory (NWI) maps (USFWS 2023c). The NWI database indicates potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. This database is used as a preliminary indicator of wetland habitats because the satellite data are not precise.
- Title 33 Code of Federal Register (CFR): Navigation and Navigable Waters Part 328
- USGS National Hydrography Dataset (NHD). Provides the locations of "blue-line" streams as mapped on 7.5-Minute Topographic Map coverage.
- Aerial Imagery (Google Earth©) (Google 2023).
- USGS 7.5-Minute Topographic Maps.

- Natural Resource Conservation Service (NRCS) Soil Survey.

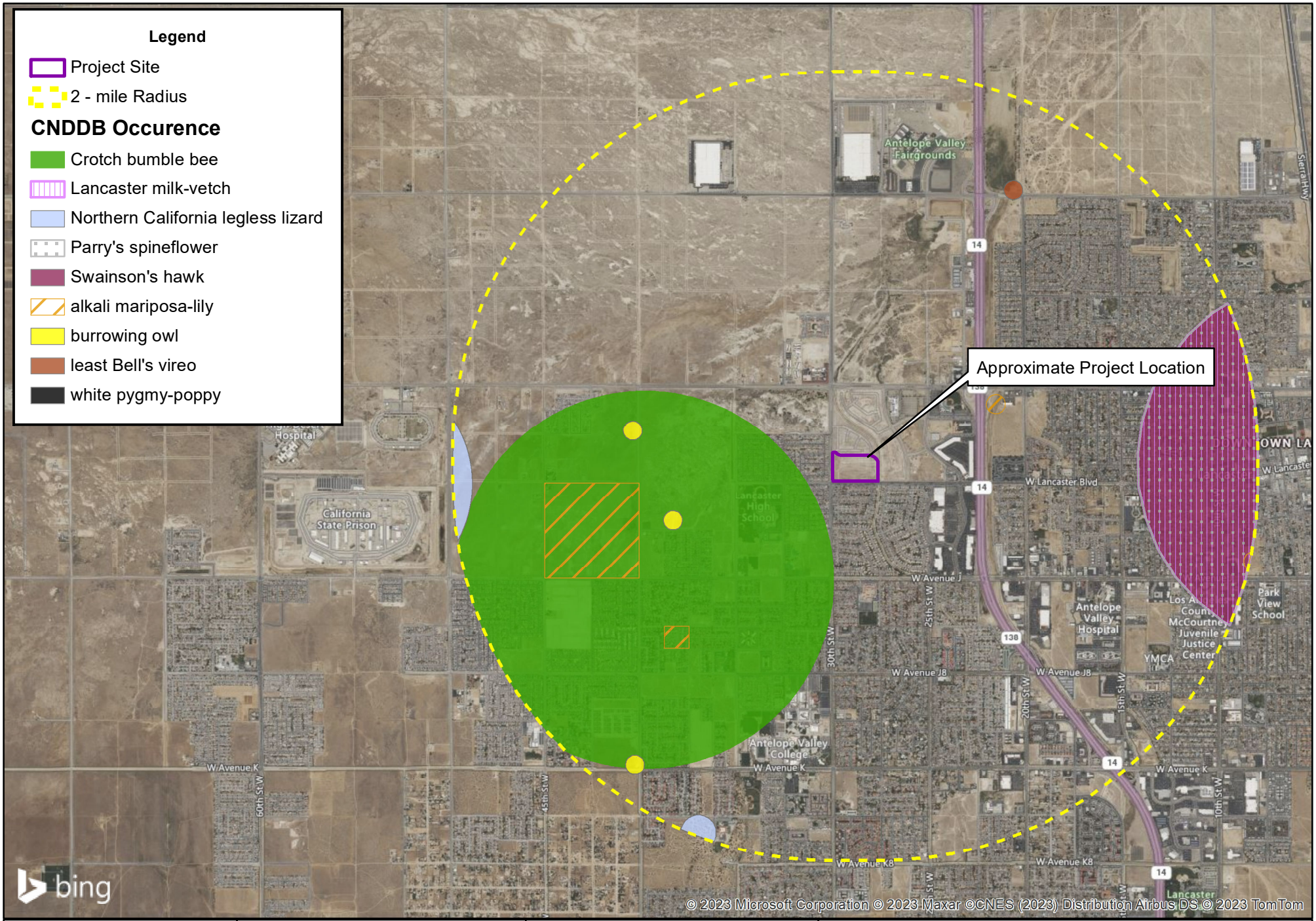
The Corps and the RWQCB have jurisdiction over Waters of the United States. Jurisdictional non-wetland features for the Waters of the United States are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." Projects with impacts to Waters of the United States are regulated under Sections 401 and 404 of the Clean Water Act.

To determine the presence of a jurisdictional wetland for the Waters of the United States, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the *United States Army Corps of Engineers 1987 Wetland Delineation Manual* and the *Arid West Supplement* sets the standards for meeting each of the three indicators, which normally require more than 50 percent cover of dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present.

CDFW has jurisdiction over water of the Department's interest (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720), referred to as Waters of the State. Section 1602 of the California Fish and Game Code (FGC) applies to all rivers, streams, lakes and streambeds. CDFW defines a stream as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators" (Brady and Vyverberg 2013). Likewise, CDFW regulates jurisdictional areas of riparian habitat only to the extent that those areas are part of a stream, river, or lake as defined above. Waters of the State pertaining to Porter-Cologne in relation to RWQCB jurisdiction are defined by California Water Code Section 13050(e) as any surface or ground water within the boundaries of the state.

Prior to the field investigation, CSLS biologist reviewed historical aerial imagery and topography for the Study Area to determine the potential for perennial, intermittent, or ephemeral drainages and associated riparian resources. Generally, indicators of jurisdictional drainages on an aerial photo include vegetation and/or incised lines indicating the path of flowing water. Following the desktop research, CSLS biologists conducted an onsite field investigation. Based on the collective results of the desktop investigation and the field surveys, any observed jurisdictional features were mapped using the following parameters:

- The limits of the Corps' jurisdiction extend to the OHWM. OHWM indicators include: the observation of benches, break in bank slope, particle size distribution, sediment deposits, drift, litter, and/or change in plant community.
- The RWQCB shares the Corps' jurisdictional methodology, and the Regional Board's May 2020 wetland definition.
- CDFW's jurisdiction applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. CDFW's authority also includes riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, CDFW jurisdiction is mapped to the top of bank of the stream or the extent of streambed dependent vegetation.



GIS Prepared By:
Carlson SLS

Created: May 11, 2023

0 875 1,750 3,500 5,250 7,000 Feet
1 inch = 3,500 feet

Data Source: Bing Map
CNDDB (June 2023)

Desert Meadows Project
CNDDB Occurences

FIGURE 4

5.0 Results

A field survey and jurisdictional delineation was performed on January 27, 2023 and May 31, 2023, by CSLS biologist Brianna Bernard to assess and map vegetation communities, plants, and wildlife, and identify habitat areas that could be suitable for special status plant species or jurisdictional features.

5.1 Vegetation Communities

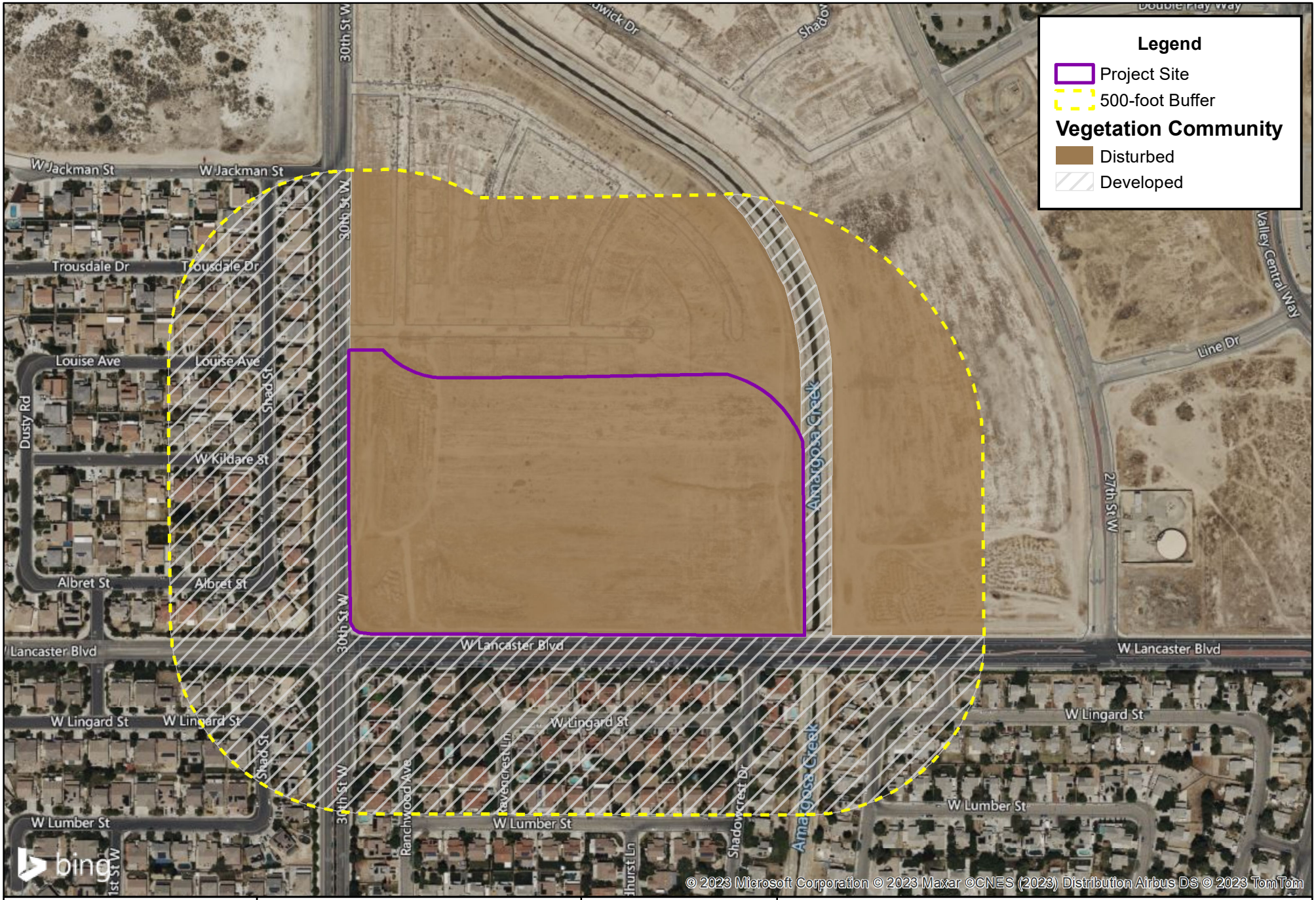
The vegetation communities and habitat conditions were inspected to confirm presence and habitat quality of the vegetation found onsite. Vegetation mapping and acreages for each vegetation community is based on the observations of the field survey, which are listed below in Table 1 and graphically depicted on Figure 5. Representative photographs of the vegetation communities can be found in Appendix A. Species observed onsite were non-native, except for scattered coyote bush (*Baccharis pilularis*). Species observed onsite include:

The deviations from MCVII alliance categories include ruderal, ornamental, disturbed and developed communities. The deviations were made due to the lack of alliances for these communities within MCVII. The field survey analyzed the Project site and a surrounding 300-foot buffer around the Project site to determine the existing vegetation types. As shown on Figure 6, the surrounding 300-foot buffer consists primarily of developed, disturbed, and non-native grasslands vegetation communities.

Table 1. Vegetation Community Observed

Vegetation Community	Acreage within the Project site (acres)	Acreage within the 500-Foot buffer area (acres)
Disturbed	20.3	24.35
Developed	0.00	39.30
TOTAL	20.3	63.65

The general description of the habitat observed during the field survey are described below.



GIS Prepared By:
Carlson SLS

Created: May 16, 2023

0 87.5 175 350 525 700 Feet

1 inch = 350 feet

Data Sources: Bing Maps

Desert Meadows Project

Vegetation Community Mapping

FIGURE 5

5.1.1 Disturbed

The Project site consists entirely of disturbed habitat. The disturbed habitat area is associated previous grading operations and off-roading activities. The disturbed area includes scattered coyote bush.

5.1.2 Developed

The developed areas are not vegetated and consist of existing residential homes, roads, a concrete lined Flood Control Channel, and sidewalks. This vegetation communities occurs only within the 500-foot buffer area.

5.2 Special-Status Vegetation Types

A CNDDB search within the Lancaster West USGS topographic quadrangle identified no special-status vegetation communities designated by CDFW.

5.3 Plants

Sensitive plants include those listed, or candidates for listing, by the USFWS and CDFW; and species considered sensitive by the CNPS (particularly Lists 1A, 1B, and 2). Several sensitive plant species were reported in the vicinity of the Study Area based on the CNDDB and within the Lancaster West quadrangle search. A total of five sensitive plant species. A brief description of the species is included below. A complete list of special status plant species within the potential to occur on the Project site were analyzed based on distribution, habitat requirements, and existing site conditions (Appendix B).

Lancaster Milk-Vetch (*Astragalus preussii var. laxiflorus*)
Status: California Rare Plant Rank 1B.1
Distribution: Kern, Los Angeles, and Riverside Counties.
Habitat(s): Habitats supporting chenopod scrub. Known from 700 meters (2,295 feet) MSL. Blooms March through May.
Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during field visit.

Alkali mariposa-lily (*Calochortus striatus)*
Status: California Rare Plant Rank 1B.2
Distribution: Inyo, Kern, Los Angeles, San Bernardino, and Tulare Counties.
Habitat(s): Habitats supporting chaparral, chenopod scrub, Mojavean desert scrub and meadows and seeps. The species is found in alkaline and mesic soils. Known from 70 to 1,595 meters (230 to 5,235 feet) MSL. Blooms April through June.
Status onsite: None. The site lacks suitable habitat and soils. Not observed during field visit.

Parry's Spineflower (*Chorizanthe parryi var. parryi)*
Status: California Rare Plant Rank 1B.1

Distribution: Los Angeles, Riverside, and San Bernardino Counties.
Habitat(s): Habitats supporting chaparral, chenopod scrub, coastal scrub, and valley and foothill grasslands. Known from 275 to 1,220 meters (900 to 4,005 feet) MSL. Blooms April through June.
Status onsite: None. The site lacks suitable habitat. Not observed during the field survey.

Rosamond eriastrum (*Eriastrum rosamondense*)
Status: California Rare Plant Rank 1B.1
Distribution: Kern and Los Angeles Counties.
Habitat(s): Habitats supporting chenopod scrub and vernal pool edges. The species is found within alkaline and sandy soils. Known from 700 to 1,175 meters (2,295 to 3,855 feet) MSL. Blooms April through March (July).
Status onsite: None. The site lacks suitable habitat and soils. Not observed during the field survey.

As determined through the field surveys conducted, no special status plant species were observed within the Project site and there is no potential for special status plant species to occur on the Project site because the site is disturbed. The site lacks suitable habitats and soils to support the special status plant species.

5.4 Critical Habitat

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project site is within any species designated Critical Habitat. The Project site and surrounding buffer area are not located within any designated Critical Habitat overlay. The closest designated Critical Habitat is located approximately 17 miles east of the Project site for the Desert Tortoise (*Gopherus agassizii*). The Project site does not contain habitat for the Desert Tortoise and the species does not occur onsite.

5.5 Wildlife

Special status wildlife species with the potential to occur within the Study Area were analyzed based on the species identified in USGS 7.5' Lancaster West quadrangle, distribution, habitat requirements, and existing site conditions (Appendix C). No special status wildlife was identified or observed within the Project site during the field survey. The following special status species are identified to occur within the Lancaster West quadrangle and noted as an occurrence within the 2-mile CNDDB search: Northern California legless lizard (*Anniella pulchra*), burrowing owl (*Athene cunicularia*), crotch bumble bee (*Bombus crotchii*), Swainson's Hawk (*Buteo swainsoni*), and least Bell's vireo (*Vireo bellii pusillus*). A brief description of those species identified, and their habitat is included below. A complete list of the special status species identified within the quadrangle can be found in Appendix C.

California Legless Lizard (*Anniella pulchra*)
Status: Species of Special Concern
Habitat(s): Coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fan systems.
Status onsite: None. No suitable habitat is found within the Project site. Not observed during the field surveys.

Burrowing Owl (*Athene cunicularia*)
Status: Species of Special Concern
Habitat(s): Burrowing owls are a year-round resident of California including habitats of open, dry grassland, and desert. They are generally restricted to mostly flat, open country with suitable nest sites. They use rodent or other burrows for roosting and nesting cover and acquire their burrows from either abandonment or eviction. Burrowing owls typically hunt from a perch.
Status onsite: While very limited suitable burrows were observed on the spoils on the western side of the Project, the Project lacks satellite burrows and the burrows observed contains spider webs further confirming the burrows were not used by mammals or burrowing owls. The Project site is isolated from large contiguous open space parcels and occurs along the heavily trafficked Lancaster Boulevard and 20th Street West. Likewise, the Project site is moderately traveled by pedestrians. Furthermore, the closest burrowing owl recorded occurrence was located one mile to the west of the Project site and was observed in 2006. Additionally, a burrowing owl was recorded 1.15 miles to the northwest of the Project site in 2013. While marginally suitable burrows were observed, the burrows did not contain any diagnostic signs of burrowing owl. During the field surveys, the biologist paid special attention to any mammal burrows suitable for burrowing owl and the burrows were carefully inspected for signs of burrowing owl. Based on the location of the Project site, the pedestrian access and use of the site, the heavily trafficked streets surrounding the Project site, it is determined the Project site is not occupied by the species. The species was not observed during the field surveys.

Crotch bumble bee (*Bombus crotchii*)
Status: State Candidate for Endangered
Habitat(s): The crotch bumble bee inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California.
Status onsite: None. No suitable habitat is found within the Project site. Not observed during the field surveys.

Swainson's Hawk (*Buteo swainsoni*)
Status: State threatened
Habitat(s): This hawk prefers open grasslands and desert-like habitats. It is common to see this hawk perched on a fence post in a prairie or open range. The Swainson's

Hawk also inhabits agricultural areas and is known to follow farmer's tractors in search of insect or rodent prey.
Status onsite: None. The site lacks suitable habitat. Not observed during field surveys.

Least Bell's Vireo (*Vireo bellii pusillus*)
Status: Federally endangered, State endangered
Habitat(s): This species primarily occupies riverine riparian habitats that typically feature dense cover within 1-2 m of the ground and a dense, stratified canopy. Typically, it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses.
Status onsite: None. The site lacks suitable habitat. Not observed during field surveys.

Summary of Sensitive Wildlife Species
No special status wildlife species or evidence of their presence were observed or heard during the field surveys. Given the Project site's disturbed environment, proximity to Lancaster Boulevard and 30th Street West, and lack of suitable habitat for the sensitive species, there is no opportunity sensitive wildlife species to occur within the Project site.

5.5.1 Wildlife Species Observed or Detected

Wildlife activity was low, and the species observed are typical urbanized species. The animal species or signs thereof observed during the CSLS surveys are listed below:

Birds:

- American crow (*Corvus brachyrhynchos*)
- song sparrow (*Melospiza melodia*)
- Say's phoebe (*Sayornis saya*)
- Anna's hummingbird (*Calypte anna*)
- turkey vulture (*Cathartes aura*)

Reptiles:

- western fence lizard (*Sceloporus occidentalis*)

5.6 Regional Connectivity/Wildlife Movement

The Project site does not support regional wildlife movement. The Project site consists of disturbed and developed vegetation communities, with the heavily trafficked Lancaster Boulevard and 30th Street West, which further constrains potential regional wildlife movement through the Project site.

Although regional movement through this area is likely limited, there is some potential for smaller or "local" movement through the Study Area for more urbanized species. Movement on a smaller scale could occur within the site for species that are less

restricted in movement pathway requirements or are adapted to urban areas [e.g., avian species).

Bird species may fly over the Project site to utilize the site for foraging, although this is expected to be limited due to the high level of human activity in the region. In summary, the site may support live-in and movement habitat for species on a local scale. Due to development surrounding the site, the heavily trafficked streets, the site likely provides little to no function to facilitate movement for wildlife species on a regional scale.

5.7 Burrowing Owl Habitat Assessment

A Burrowing Owl Habitat Assessment survey was conducted on March 3, 2023 to determine if the Project Site contains suitable BUOW habitat. Based on the Habitat Assessment it was determined the Project site contains very limited suitable habitat, with burrows were observed on the spoils on the western side of the Project. The survey was conducted during typical BUOW peak activity time and was not conducted during rain, high winds, or dense fog. The Project Site consists of a disturbed and developed vegetation community that appeared to be regularly maintained. Furthermore, pedestrians and pedestrian trails were observed onsite. The Project site was surveys again on May 31, 2023.

It is determined the Project lacks satellite burrows and the burrows observed contained spider webs further confirming the burrows were not recently used by mammals or burrowing owls. Furthermore, the Project site is isolated from large contiguous open space parcels and occurs along the heavily trafficked Lancaster Boulevard and 20th Street West. Likewise, the Project site is moderately traveled by pedestrians. In addition, the closest burrowing owl recorded occurrence was located one mile to the west of the Project site and was observed in 2006. Additionally, a burrowing owl was recorded 1.15 miles to the northwest of the Project site in 2013. While marginally suitable burrows were observed, the burrows did not contain any diagnostic signs of burrowing owl. During the field surveys, the biologist paid special attention to any mammal burrows suitable for burrowing owl and the burrows were carefully inspected for signs of burrowing owl. Based on the location of the Project site, the pedestrian access and use of the site, the heavily trafficked streets surrounding the Project site, it is determined the Project site is not occupied by the species.

No California ground squirrels (*Spermophilus beecheyi*) were observed on the Project site. Therefore, based on the lack of satellite burrows, maintenance that occurs on the Project Site, the surrounding developments, the heavily trafficked roads, and moderately travel pedestrian paths, it is determined that the Project site is not occupied by BUOW.

5.8 Jurisdictional Areas

5.8.1 Summary of Jurisdictional Waters

No jurisdictional waters occur onsite. Located to the east of the Project site is the Amargosa Creek Flood Control Channel. The Flood Control Channel is a concrete lined channel and contains no biological value, nor is it considered a special aquatic habitat. The Flood Control Channel would not be under the jurisdiction of the Corps because Lancaster has no connection to navigable waters. The Flood Control Channel would be under the jurisdiction of RWQCB and CDFW. Jurisdictional Waters are shown on Figure 6.

5.8.2 Waters of the United States

This section relies on the term "Waters of the United States" as it applies to the jurisdictional limits under the authority of the Corps under the Clean Water Act and applies to the jurisdiction of the Regional Water Quality Control Board under the Porter-Cologne Water Quality Act. Based on the methodology described in Section 4.3, both literature/data base review and a field delineation were conducted to determine the presence of jurisdictional waters.

No waters occur onsite under the jurisdiction of Corps. The Flood Control Channel would not be under the jurisdiction of the Corps because Lancaster has no connection to navigable waters.

However, a total of 2.05 acres of RWQCB waters occurs only within the 500-foot buffer and is the concrete lined Amargosa Creek Flood Control Channel.

5.8.3 Waters of the State

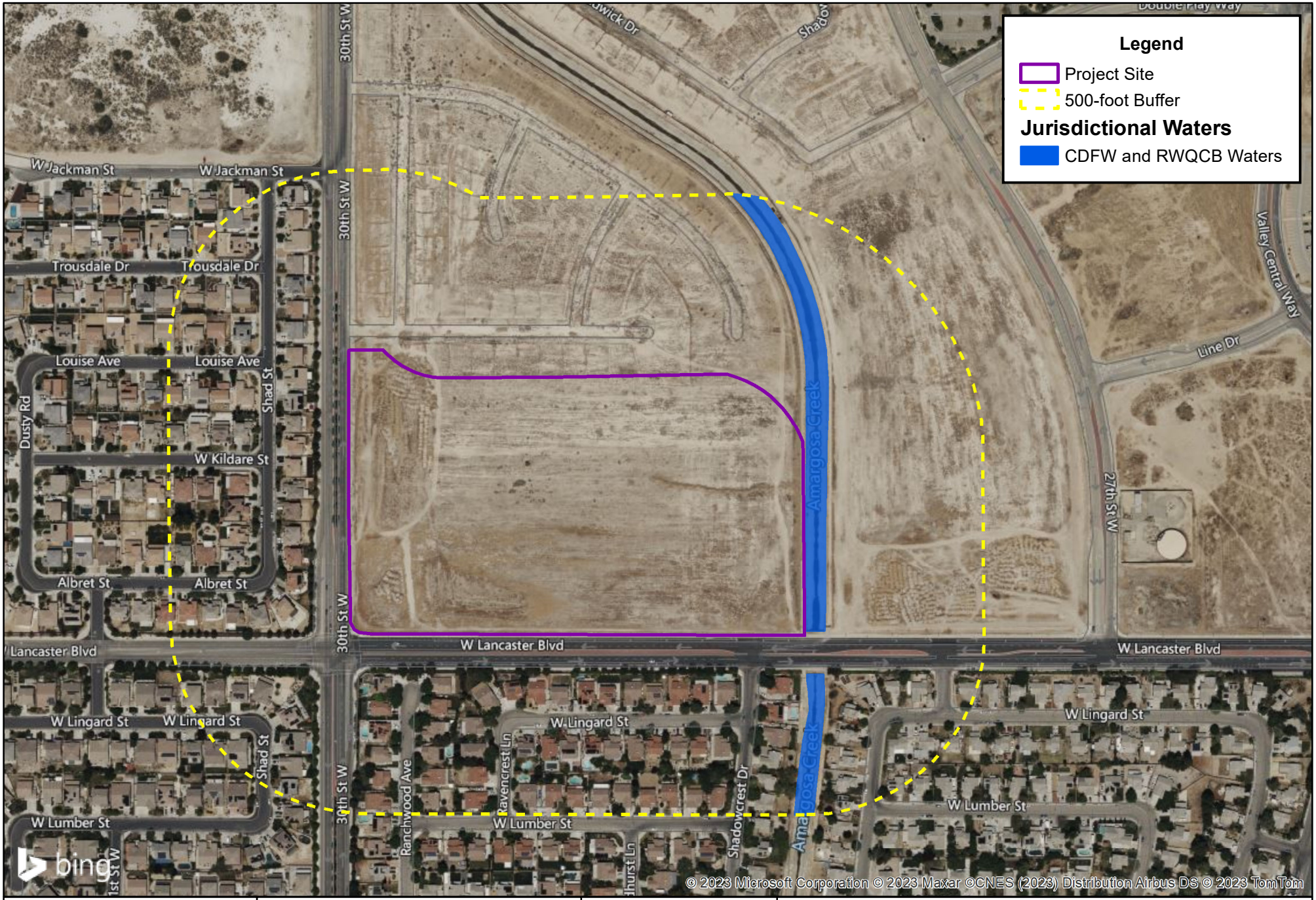
The Project site does not contain any CDFW jurisdictional waters. However, a total of 2.05 acres of CDFW waters occurs only within the 500-foot buffer and is the concrete lined Amargosa Creek Flood Control Channel. The Flood Control Channel meet CDFW characteristics in accordance with FGC Section 1600 (Brady and Vyverberg 2013).

5.9 Soils Mapping

The United States Department of Agriculture Natural Resources Conservation Service lists two soil types (series) for the Study Area (Figure 7). Please see below for the following soil type, which was used to determine the possibility for sensitive wildlife and plant species. No unique soil types exist on the Project site.

The following soil types are mapped within the Study Area and shown on Figure 7:

- Pond loam (Po)
- Pond silty clay loam (Ps)



GIS Prepared By:
Carlson SLS

Created: May 16, 2023

0 87.5 175 350 525 700 Feet

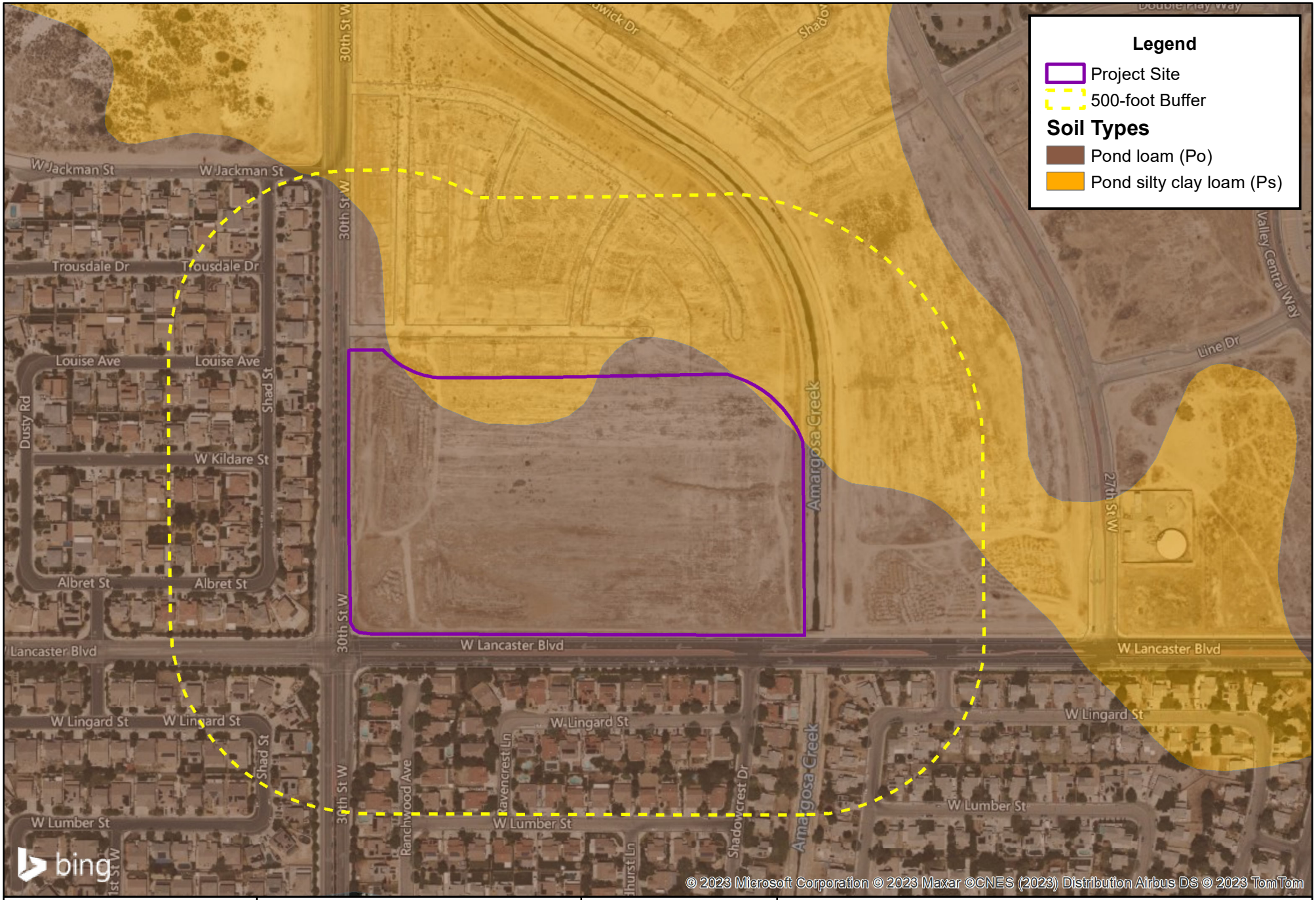
1 inch = 350 feet

Data Sources: Bing Maps

Desert Meadows Project

Jurisdictional Waters

FIGURE 6



GIS Prepared By:
Carlson SLS

Created: May 16, 2023

0 87.5 175 350 525 700 Feet

1 inch = 350 feet

Data Sources: Bing Maps

Desert Meadows Project

Soil Map

FIGURE 7

6.0 Threshold of Significance

Appendix G of the CEQA Guidelines is used by public agencies in determining whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

Threshold BIO-A Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Threshold BIO-B Have a substantial adverse effect on any riparian habitat or other sensitive plant community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

Threshold BIO-C Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold BIO-D 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 areas.

Threshold BIO-E Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold BIO-F Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

For the purposes of this impact analysis the following definitions apply:

- "Substantial adverse effect" means loss or harm of a magnitude which, based on current scientific data and knowledge would: (1) substantially reduce population numbers of a listed, candidate, sensitive, rare, or otherwise special status species; (2) substantially reduce the distribution of a sensitive plant community/habitat type; or (3) eliminate or substantially impair the functions and values of a biological resource (e.g., streams, wetlands, or woodlands) in a geographical area defined by interrelated biological components and systems. In the case of this analysis, the prescribed geographical area is considered to

be the region that includes the USGS topographic quadrangle for the site. For some species, the geographic area may extend to the vicinity of the site based on known distributions of the species.

- "Conflict" means contradiction of a magnitude, which based on foreseeable circumstances, would preclude or prevent substantial compliance.

- "Rare" means: (1) that the species exists in such small numbers throughout all, or a significant portion of, its range that it may become endangered if its environment worsens; or (2) the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the FESA.

7.0 Significance Determination and Proposed Mitigation

7.1 Regulatory Setting

Sensitive species are provided protection by either Federal or State resource management agencies, or both, under provisions of the FESA and CESA.

There are a number of performance criteria and standard conditions that must be met as part of any review and approval of the proposed Project. These include compliance with all of the terms, provisions, and requirements with applicable laws that relate to Federal, State, and local regulating agencies related to potential impacts to sensitive plant and wildlife species, wetlands, riparian habitats, and blue lined stream courses. Impacts are sometimes locally important but not significant because, although they would result in an adverse alteration of existing local conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

7.2 Project Related Impacts

For the purpose of this assessment, Project-related impacts consist of direct and indirect impacts. Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of no to low mobility (i.e., plants, amphibians, reptiles, and small mammals).

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native

animals). Indirect impacts may be associated with the construction and/or operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

The determination of impacts in this analysis is based on the proposed Project development plan and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Any recommended mitigation measures to address impacts are discussed below, along with compliance of existing regulations.

7.2.1 Impacts to Vegetation Communities

Direct impacts resulting from Project implementation consist of any ground-disturbing activities (i.e., vegetation removal, grading, paving, structures, landscaping, fuel modification zone, etc.). These areas would be permanently affected by the construction of the Project. Calculations are based on the currently proposed development design in conjunction with the vegetation map from the field survey and aerial imagery. The proposed development plan can be found on Figure 3.

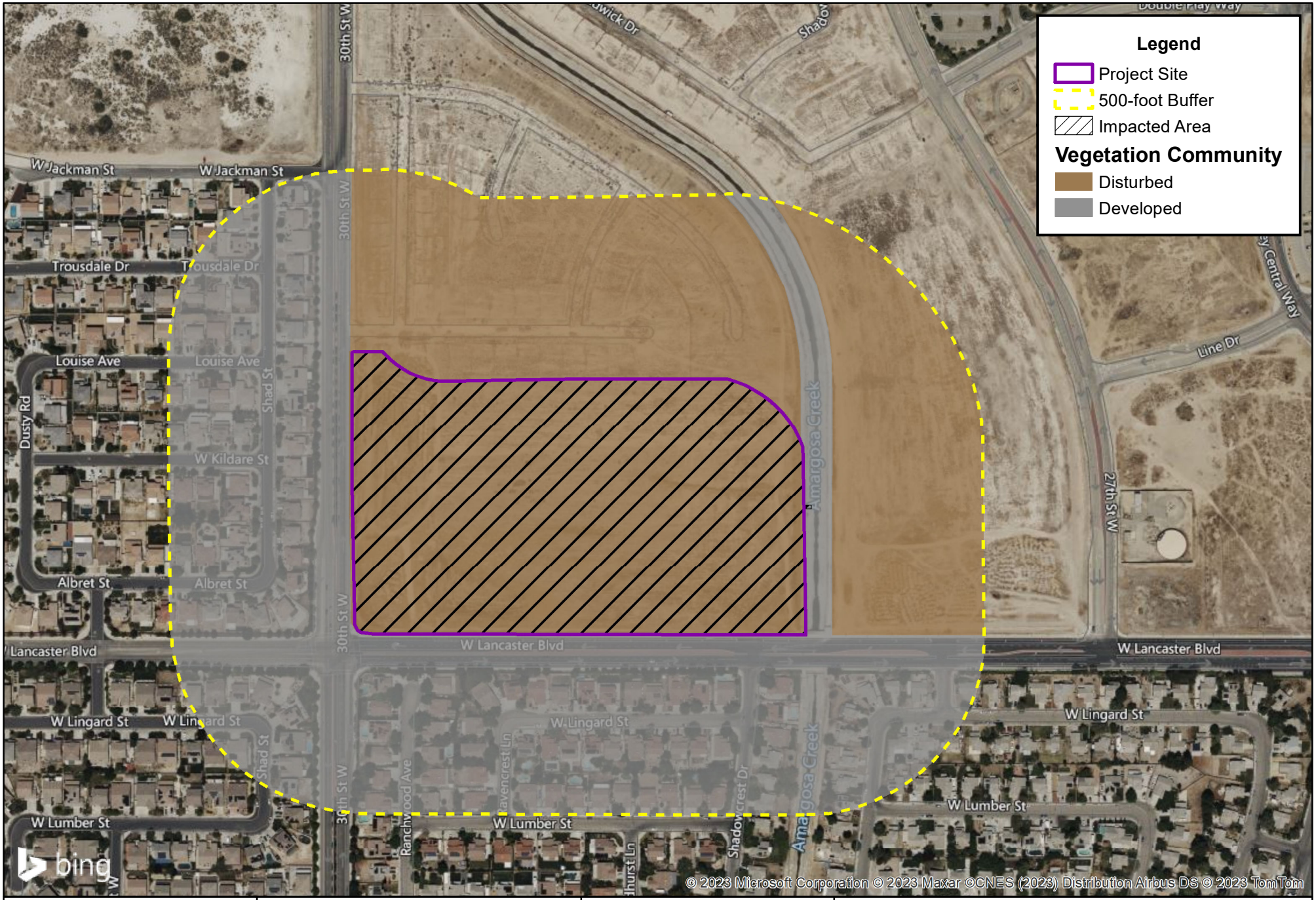
Indirect temporary impacts to plant communities include the effects of fugitive dust created by grading activities, vehicle construction traffic, or offsite discharge of surface water runoff with its associated erosion and sedimentation. Grading-related dust could settle on plant surfaces and indirectly inhibit metabolic processes such as photosynthesis and respiration. Grading-related erosion, runoff, sedimentation, soil compaction, and alteration of drainage patterns may affect plants by altering site conditions so that the location in which they are growing becomes unfavorable. Another example of indirect impacts includes the introduction and spread of invasive, exotic plants which could result in permanent indirect impacts to adjacent native plant communities.

Figure 8 and Table 2 describe and list the approximate total acreages of vegetation communities that will be impacted by Project activities within the Project boundary. It is anticipated the entire Project site will be impacted.

Table 2. Vegetation Community Impacts

Vegetation Community	Existing Vegetation (acres)	*Impacts (acres)*
Disturbed	20.3	20.3
Developed	0.00	0.00[1]
TOTAL	20.3	*20.3*

1. 0.003 acres of impacts to developed vegetation community is a result of stormdrain connection to Amargosa Creek Flood Control Channel located within the 500-foot buffer area and is a concrete lined Flood Control Channel.



GIS Prepared By:
Carlson SLS

Created: August 16, 2023

0 87.5 175 350 525 700 Feet

1 inch = 350 feet

Data Sources: Bing Maps
United Engineering (August 2023)

Desert Meadows Project

Vegetation Community Impact Map

FIGURE 8

Direct impacts to the 20.3 acres of disturbed community are not significant because the area is disturbed due to site maintenance and pedestrian trails. Furthermore, the species found within the Disturbed community include non-native and common plant species which are present in large numbers throughout the region and the removal is not considered significant.

No impacts are anticipated to native vegetation communities

A total of 0.003-acres of direct impacts to developed communities are anticipated to the surrounding 500-foot buffer area due to offsite improvements. These impacts are not considered significant as they consist of concrete and asphalt.

7.2.2 Impacts to Jurisdictional Features

Any direct impact to the jurisdictional waters would require authorization from the Resource Agencies before any impacts could commence.

No jurisdictional waters occur onsite. However, a total of 2.05 acres of RWQCB/CDFW waters occurs only within the 500-foot buffer and consists of the concrete lined Amargosa Creek Flood Control Channel. The Flood Control Channel is not under the jurisdiction of the Corps because Lancaster has no connection to navigable waters.

A total of 0.003-acres of direct impacts to the concrete lined channel are anticipated to the surrounding 500-foot buffer area due to offsite improvements (Figure 9). This impact is due to a proposed stormdrain connection. These impacts will be temporary to concrete and will be returned to concrete conditions following the connection. These impacts are not considered significant as they consist of concrete, no natural habitat, and the channel is not considered a special aquatic environment. Therefore, no mitigation is required.

7.3 Threshold BIO - A

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated.

7.3.1 Sensitive Plant Species

No special status plant species exist within the Project site. No suitable habitat for the plant species is found within the Project site, and no observations of sensitive species have been made; therefore, no impact would occur.



GIS Prepared By:
Carlson SLS

Created: August 16, 2023

0 87.5 175 350 525 700 Feet

1 inch = 350 feet

Data Sources: Bing Maps
United Engineering (August 2023)

Desert Meadows Project

Jurisdictional Waters Impact Map

FIGURE 9

7.3.2 Sensitive Wildlife Species

The Project site has limited nesting and foraging habitat for special status wildlife identified below due to the location and surrounding land uses and the built nature of the Project site. The habitat found onsite does not provide suitable habitat for sensitive wildlife species.

Direct impacts associated with Project implementation may occur to all avian species covered under the Migratory Bird Treaty Act (MBTA) with the removal of potential foraging habitat. Under Mitigation Measure BIO-1, if Project construction is scheduled to occur during the typical breeding bird season (January 1 through August 15 for raptors and February 15 through August 31 for all other avian species), direct removal of vegetation and indirect short-term noise effects to birds that may forage or nest within the disturbed areas onsite or within the buffer area may occur. In order to reduce direct and indirect impacts on nesting birds, if vegetation removal and/or construction activities were to occur during nesting bird season, a pre-construction nesting bird survey would be required within five (5) days of ground disturbances during typical nesting bird season to delineate any active nests found within the Study Area. Should an active nest be observed, a no-work buffer shall occur surrounding the active nest, until determined by the Project Biologist it has become inactive. The implementation of the pre-construction nesting bird survey would prevent any direct or indirect impacts due to the removal of vegetation and construction-related noise on species covered under the MBTA.

Pre-construction nesting bird surveys as outlined within Mitigation Measure BIO – 1 would ensure protection against direct impacts associated with vegetation removal or indirect impacts associated with construction related noise impacts for avian species covered under the MBTA during the typical nesting bird season. Implementation of MM BIO-1 would reduce potential impacts to special status wildlife species to less than significant.

> MM BIO – 1: If grading or site disturbance is to occur between January 1 through August 15 for raptors and February 15 through August 31 for all other avian species, a nesting bird survey shall be conducted within all suitable habitat, onsite and within 300-feet surrounding the site (as feasible), by a qualified biologist within no more than 5 days of scheduled vegetation removal or start of ground disturbing activities, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall establish buffers around the vegetation (500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e. the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with the no-work buffers and verify the nesting effort has finished. Work can resume when no other active nests are found onsite or within the surrounding buffer area. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas of an active nest with

preparation and implementation of a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared documenting mitigation monitoring compliance. If ground disturbances have not commenced within 5 days of a negative survey or if construction activities have stopped for 5 days or longer, the nesting survey must be repeated to confirm the absence of nesting birds.

With the implementation of MM BIO-1potential adverse impacts to nesting birds and special status wildlife species are reduced to a less than significant level.

7.3.3 Critical Habitat

The Study Area does not contain a designated Critical Habitat overlay. The closest designated Critical Habitat is located approximately 17 miles east of the Project site for the Desert Tortoise (*Gopherus agassizii*). The Project site does not contain habitat for the Desert Tortoise and the species does not occur onsite. Therefore, there is no impact.

7.4 Threshold BIO- B

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than significant.

No jurisdictional waters occur onsite. However, a total of 2.05 acres of RWQCB/CDFW waters occurs only within the 500-foot buffer and consists of the concrete lined Amargosa Creek Flood Control Channel. The Flood Control Channel is not under the jurisdiction of the Corps because Lancaster has no connection to navigable waters.

A total of 0.003-acres of direct impacts to the concrete lined channel are anticipated to the surrounding 500-foot buffer area due to offsite improvements. This impact is due to a proposed stormdrain connection. These impacts will be temporary to concrete and will be returned to concrete conditions following the connection. These impacts are not considered significant as they consist of concrete, no natural habitat, and the channel is not considered a special aquatic environment. Therefore, no mitigation is required.

7.5 Threshold BIO - C

Would the project 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?

Less than significant.

No jurisdictional waters occur onsite. However, a total of 2.05 acres of RWQCB/CDFW waters occurs only within the 500-foot buffer and consists of the concrete lined Amargosa Creek Flood Control Channel. The Flood Control Channel is not under the jurisdiction of the Corps because Lancaster has no connection to navigable waters.

A total of 0.003-acres of direct impacts to the concrete lined channel are anticipated to the surrounding 500-foot buffer area due to offsite improvements. This impact is due to a proposed stormdrain connection. These impacts will be temporary to concrete and will be returned to concrete conditions following the connection. These impacts are not considered significant as they consist of concrete, no natural habitat, and the channel is not considered a special aquatic environment. Therefore, no mitigation is required.

7.6 Threshold BIO - D

Would the project 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?

Less than Significant with Mitigation Incorporated.

7.6.1 Wildlife Movement

The site supports potential live-in and movement habitat for species on a local scale (i.e., some limited live-in and marginal movement habitat for reptile, bird, and mammal species), however, the site provides no function to facilitate wildlife movement on a regional scale due to the surrounding developed area. Movement on a local scale likely occurs with species adapted to urban environments due to the surrounding development in the vicinity of the site. Although implementation of the Project would result in disturbances to local wildlife movement within the site, those species adapted to urban areas would be expected to persist on-site following construction of the Project. As such, impacts would be less than significant, and no mitigation measures would be required.

7.6.2 Migratory Birds and Raptors

The site supports potential foraging for avian species and limited nesting in the form of ground nesting species. Nesting activity typically occurs from January 1 through August 15 for raptors and February 15 through August 31 for all other avian species. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. As such, direct impacts to breeding birds (e.g. through nest removal) or indirect impacts (e.g. by noise causing abandonment of the nest) is potentially significant. Compliance with the MBTA would reduce impacts to a less than significant level, as detailed in MM BIO-1.

7.7 Threshold BIO - E

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact.

The Project is not subject to any local policies, such as a tree preservation ordinance, that protect biological resources and no trees occur onsite. The proposed project would be subject to the requirements of Ordinance No. 848, Biological Impact Fee, which requires the payment of $770/acre to help offset the cumulative loss of biological resources in the Antelope Valley as a result of development. This fee is required of all projects occurring on previously undeveloped land regardless of the biological resources present and is utilized to enhance biological resources through education programs and the acquisition of property for conservation. Therefore, no impacts would occur, and no mitigation is necessary.

7.8 Threshold BIO - F

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact.

The City or Lancaster does not have an adopted Conservation Plan, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. Therefore, no impact would occur, and no mitigation is necessary.

8.0 Cumulative Impacts

The loss of biological resources on the Study Area must be considered in the context of the other development in the area. The Project's direct impact analysis identified nesting birds that when combined with impacts from other reasonably past, present, and future projects, could result in a cumulative biological impact. Direct impacts may occur to nesting birds should construction activities take place during the typical nesting season. However, adherence and implementation of MM BIO - 1 will ensure impacts to nesting and breeding avian species and their habitats are minimized thus reducing the Project's contribution to cumulative impacts to less than significant.

The surrounding area is development with residential homes. Although implementation of the Project would result in disturbances to foraging within the site, those species adapted to urban areas would be expected to persist on-site following construction of the Project. Therefore, the proposed Project would not contribute to a cumulative impact, resulting in a less than significant cumulative impact.

9.0 Literature Cited

Amphibiaweb. 2023. Species Accounts. Retrieved from: http://amphibiaweb.org/search/index.html

AOU (The American Ornithologists' Union). 1998. Check-List of North American Birds. 7th Edition. American Ornithologists' Union, Washington, D.C. 829 pp.

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University California Press, Berkeley.

Bowers, N., R. Bowers, and K. Kaufman. 2004. Mammals of North America. Houghton Mifflin Company, New York.

Brady, Roland H. III, Kris Vyverberg. 2013. Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants. California Energy Commission. Publication Number: CEC-500-2014-013.

Calflora. 2023. Calflora website - search for plants. Retrieved from: http://www.calflora.org/species/index.html.

CaliforniaHerps.com. 2023. California Herps. A Guide to the Reptiles and Amphibians of California. Retrieved from: http://www.californiaherps.com/.

Cal-IPC (California Invasive Plant Council). 2006. California Invasive Plant Inventory. Cal- IPC Publication 2006-02. California Invasive Plant Council: Berkeley, CA. Retrieved from: http://www.cal-ipc.org/ip/inventory/index.php.

CDFW (California Department of Fish and Wildlife). 2023. Natural Communities List. Biographic Data Branch. The Vegetation Classification and Mapping Program. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

CDFW (California Department of Fish and Wildlife). 2023a. California Endangered Species Act (CESA). Retrieved from: https://www.wildlife.ca.gov/Conservation/CESA.

CDFW (California Department of Fish and Wildlife). 2023b. California Environmental Quality Act (CEQA). Retrieved from: https://www.wildlife.ca.gov/Conservation/CEQA.

CDFW (California Department of Fish and Wildlife). 2023c. Fish and Game Code Section 1600-1616. Retrieved from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3784.

CDFW (California Department of Fish and Wildlife). 2023d. Lake and Streambed Alteration Program. Retrieved from: https://www.wildlife.ca.gov/Conservation/LSA.

CDFW (California Department of Fish and Wildlife). 2023e. Life History Accounts and Range Maps – California Wildlife Habitat Relationship System. Retrieved from: https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range.

CDFW (California Department of Fish and Wildlife). 2023f. RareFind, California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB). State of California, The Natural Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, California Natural Diversity Database, Sacramento, CA.

CDFW (California Department of Fish and Wildlife), Natural Diversity Database. February 2023g. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. 140 pp.

CDFW (California Department of Fish and Wildlife), Natural Diversity Database. February 2023h. Special Animals List. Periodic publication. 67 pp.
Retried from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406.

CDFW (California Department of Fish and Wildlife). 2023i. State and Federally Listed Endangered, Threatened, and Rare Plants of California. State of California, The Resources Agency, Department of Fish and Wildlife, Resource Management and Planning Division, Biogeographic Data Branch, California Natural Diversity Database, Sacramento, CA.

Clark, W.S. and B.K. Wheeler. 2001. A Field Guide to Hawks of North America, Second Edition. Houghton Mifflin Company, Boston and New York.

California Native Plant Society, Rare Plant Program. 2023. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 12 March 2018].

Corps (United States Army Corps of Engineers). 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. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Eder, Tamara. 2005. Mammals of California. Lone Pine Publishing International Inc, Auburn, WA.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

EPA (United States Environmental Protection Agency). 2011. Laws and Regulations. Summary of the Endangered Species Act.
Retrieved from: http://www.epa.gov/lawsregs/laws/esa.html

Fahrig, L., and G. Merriam. 1985. Habitat patch connectivity and population survival. Ecology 66:1762-1768.

Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, DC Cooperative technical publication.

Fish and Game Commission. 2023. California Law. California Fish and Game Code.
Retrieved from:
http://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=FGC&tocTitle=+Fish+and+Game+Code+-+FGC

Google. 2023. GoogleEarth© website.

Government Printing Office. 1991. Federal Register, 1989 "Federal Manual for Identifying Jurisdictional Wetlands; Proposed Revisions." August 14, 1991, Vol. 56, No. 157, pp 40446-40480.

Harris, L.D. and Gallagher, P.B. 1989. New initiatives for wildlife conservation: The need for movement corridors. In defense of wildlife: Preserving communities and corridors. pp. 11-34. Edited by G. Mackintosh. Defenders of Wildlife, Washington, DC.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Nongame Heritage Program, California Department of Fish & Game, Sacramento, Calif. 156 pp.

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Submitted to the California Department of Fish and Game Inland Fisheries Division. Rancho Cordova, CA.

National Geographic Society. Edited by Jonathan Alderfer. 2006. Complete Birds of North America. National Geographic Society. Washington D.C.

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://explorer.natureserve.org.

NRCS (Natural Resource Conservation Service). 2023. Web Soil Survey. U.S. Department of Agriculture Natural Resources Conservation Service. Retrieved from: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

Sibley, David Allen. 2000. National Audubon Society, The Sibley Guide to Birds. Alfred A. Knopf, New York.

Simberloff, D., and J. Cox. 1987. Consequences and costs of conservation corridors. Conservation Biology. 1:63-71.

Soule, Michael E. 1987. Viable populations for conservation. Cambridge University Press. Cambridge Cambridgeshire and New York.

SWRCB (State Water Resources Control Board). 2011. Porter-Cologne Water Quality Control Act with Additions and Amendments Effective April 2017. Compiled by the Office of Chief Counsel. Retrieved from: http://www.swrcb.ca.gov/laws_regulations/docs/portercologne.pdf

USDA (United States Department of Agriculture) Natural Resources Conservation Service. 1995. Hydric Soils of California.

USFWS (United States Fish and Wildlife Service). 2023a. FWS Critical Habitat for Threatened and Endangered Species. Retrieved from https://www.fws.gov/endangered/.

USFWS (United States Fish and Wildlife Service). 2023b. Migratory Birds & Habitat Programs. Migratory Bird Treaty Act. Retrieved from: https://www.fws.gov/birds/policies-and-regulations.php.

USFWS (United States Fish and Wildlife Service). 2023c. National Wetlands Inventory. Wetlands Mapper. Retrieved from: http://www.fws.gov/wetlands/Data/mapper.html.

WTI (Wetland Training Institute, Inc.). 1999. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. Glenwood, NM WTI 99-1. 143 pp.

WTI (Wetland Training Institute, Inc.). 2003. Wetland Delineation Lecture Notes and Field Guide for Wetland Delineation based on the Corps of Engineers 1987 Manual. WTI, New Mexico.

APPENDIX A

Representative Photographs of the Vegetation Community



Looking southwest over the Project site containing maintained disturbed vegetation.



Looking west at the Project site containing disturbed vegetation.



Looking west at the Project site.



Looking northwest at the Project site.



Scatter native vegetation occurs within the disturbed areas.



Looking west over the Project site.

APPENDIX B

Special Status Plant Species Potential Occurrence Determination

APPENDIX B

Special Status Plant Species Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status plant species within the Project site for the USGS 7.5-Minute Topographic Map Lancaster West and the surrounding two-mile radius. During the field surveys, the potential for special status plant species to occur within the Project site was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or recorded on-site by other qualified biologists.

- Known to Occur: observed on site in the recent past, but not observed during the most recent biological survey.

- High potential to occur: observed in similar habitat in the region by a qualified biologist or habitat on the site is a type often utilized by the species, and the site is within the known distribution and elevation range of the species.

- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species, and habitat on the site is a type occasionally used by the species.

- Low potential to occur: the site is within the known distribution and elevation range of the species, but habitat on the site is rarely used by the species or for which there are no known recorded occurrences of the species within or adjacent to the site.

- None: a focused study failed to detect the species or no suitable habitat is present.

- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assessed the probability of occurrence rather than make a definitive conclusion about species presence or absence. Failure to detect the presence of the species is not definitive and may be due to variable effects associated with fire, rainfall patterns, and/or season.

Special Status Plants: Potential to Occur within the Project Site

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
Astragalus preussii var. laxiflorus	Lancaster Milk-Vetch	CRPR: 1.B1	Habitats supporting chenopod scrub. Known from 700 meters (2,295 feet) MSL. Bloom Period: March through May.	None. The Project site lacks suitable habitat and soils. Not observed during field visit.
Calochortus striatus	Alkali mariposa-lily	CRPR:1B.2	Habitats supporting chaparral, chenopod scrub, Mojavean desert scrub and meadows and seeps. The species is found in alkaline and mesic soils. Known from 70 to 1,595 meters (230 to 5,235 feet) MSL. Bloom Period: April through June.	None. The Project site lacks suitable habitat and soils. Not observed during field visit.
Calystegia peirsonii	Peirson's morning-glory	CRPR:4.2	Habitats supporting chaparral, chenopod scrub, cismontane woodland, costal scrub, lower montane coniferous forest, and valley and foothill grasslands. Known from 30 to 1,500 meters (100 to 4,920 feet) MSL. Bloom Period: April through June.	None. The Project site lacks suitable habitat and soils. Not observed during field visit.
Canbya candida	white pygmy-poppy	CRPR:4.2	Habitats supporting Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species is found in granitic, gravelly and sandy soils. Known from 600 to 1,460 meters (1,970 to 4,790 feet) MSL. Bloom Period: March through June.	None. The Project site lacks suitable habitat and soils. Not observed during field visit.
Castilleja plagiotoma	Mojave paintbrush	CRPR:4.3	Habitats supporting Joshua tree woodland, Great Basin scrub (alluvial), lower montane coniferous forest, and pinyon and juniper woodland. Known from 300 to 2,500 meters (985 to 8,205 feet) MSL. Bloom Period: April through June.	None. The Project site lacks suitable habitat and soils. Not observed during field visit.
Chorizanthe parryi var. parryi	Parry's spineflower	CRPR:1B.1	Found in sandy or rocky openings. Habitat includes chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands. Known from 275 to 1,220 meters (900 to 4,000 feet) MSL. Blooming period: April through June.	None. The site lacks suitable habitat. Not observed during the field survey.
Chorizanthe spinosa	Mojave spineflower	CRPR:4.2	Habitats supporting Joshua tree woodland, Mojavean desert scrub, Joshua tree woodland, and playas. The species is sometimes in alkaline	None. The site lacks suitable habitat. Not observed during the field survey.

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
			soils. Known from 20 to 1,300 meters (20 to 4,265 feet) MSL. Bloom Period: March through July.	
Eriastrum rosamondense	Rosamond eriastrum	CRPR:1B.1	Habitats supporting chenopod scrub and vernal pool edges. The species is found within alkaline and sandy soils. Known from 700 to 1,175 meters (2,295 to 3,855 feet) MSL. Bloom Period: April through March (July).	None. The site lacks suitable habitat. Not observed during the field survey.
Goodmania luteola	golden goodmania	CRPR:4.2	Habitats supporting Mojavean desert scrub meadows and seeps, playas, and valley and foothill grasslands. Known from 20 to 2,200 meters (65 to 7,220 feet) MSL. Bloom Period: April through August.	None. The site lacks suitable habitat. Not observed during the field survey.

Legend

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).
FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.
SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.
ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

California Rare Plant Ranks (Formerly known as CRPR Lists): the CRPR is a statewide, non-profit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CRPR and CDFW officially changed the name "CRPR List" or "CRPR Ranks" to "California Rare Plant Rank" (or CPRP). This was done to reduce confusion over the fact that CRPR and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CRPR assignment.

> CRPR: 1B - California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Wildlife, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2 - California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Wildlife, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 4 - California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CRPR and CDFW strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

California Native Plant Society (CRPR) Threat Ranks: The CRPR Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Sources:

- Calflora website - search for plants (Calflora 2023).
- CRPR Inventory of Rare and Endangered Plants (CRPR 2023).
- The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000–2004 (CDFW 2023).
- The Jepson Manual: *Vascular Plants of California,* second edition (Baldwin *et al.* 2012).
- RareFind, CDFW, California Natural Diversity Database (CNDDB) (CDFW 2023f).
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2023i).

APPENDIX C

Special Status Wildlife Potential Occurrence Determination

APPENDIX C

Special Status Wildlife Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status wildlife species within the Project site for the USGS 7.5-Minute Topographic Map Lancaster West and the surrounding two-mile radius. During the field surveys, the potential for special status wildlife species to occur within the Project Site was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or previously recorded on-site by other qualified biologists.

- Known to Occur: observed on site in the recent past, but not observed during the most recent biological survey.

- High potential to occur: observed in similar habitat in the region by a qualified biologist or habitat on the site is a type often utilized by the species, and the site is within the known distribution and elevation range of the species.

- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species, and habitat on the site is a type occasionally used by the species.

- Low potential to occur: the site is within the known distribution and elevation range of the species, but habitat on the site is rarely used by the species or for which there are no known recorded occurrences of the species within or adjacent to the site.

- None: a focused study failed to detect the species or no suitable habitat is present.

- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assessed probability of occurrence rather than make definitive conclusions about species presence or absence. Failure to detect the species is not definitive and may be due to variable effects associated with migration, weather, fire, and/or time of day and year.

Special Status Wildlife: Potential to Occur within the Study Area

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
Agelaius tricolor	Tricolor blackbird	ST, SSC, BLMS, BBC	Tricolor blackbird colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat composed of grassland, woodland, or agricultural cropland.	None. No suitable habitat is found within the Project site. Not observed during field surveys.
Anniella pulchura	Northern California legless lizard	SSC	Coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fan systems.	None. No suitable habitat is found within the Project site. Not observed during the field surveys.
Athene cunicularia hypugaea	burrowing owl	SSC, BLMS, BCC	Burrowing owls are a year-round resident of California including habitats of open, dry grassland, and desert. They are generally restricted to mostly flat, open country with suitable nest sites. They use rodent or other burrows for roosting and nesting cover and acquire their burrows from either abandonment or eviction. Burrowing owls typically hunt from a perch.	While very limited suitable burrows were observed on the spoils on the western side of the Project, the Project lacks satellite burrows and the burrows observed contains spider webs further confirming the burrows were not used by mammals or burrowing owls. The Project site is isolated from large contiguous open space parcels and occurs along the heavily trafficked Lancaster Boulevard and 20th Street West. Likewise, the Project site is moderately traveled by pedestrians. Furthermore, the closest burrowing owl recorded occurrence was located one mile to the west of the Project site and was observed in 2006. Additionally, a burrowing owl was recorded 1.15 miles to the northwest of the Project site in 2013. While marginally suitable burrows were observed, the burrows did not contain any diagnostic signs of

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
				burrowing owl. During the field surveys, the biologist paid special attention to any mammal burrows suitable for burrowing owl and the burrows were carefully inspected for signs of burrowing owl. Based on the location of the Project site, the pedestrian access and use of the site, the heavily trafficked streets surrounding the Project site, it is determined the Project site is not occupied by the species. The species was not observed during the field surveys.
Bombus crotchii	Crotch bumble bee	SCE	The crotch bumble bee inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California.	None. No suitable habitat is found within the Project site. Not observed during field surveys.
Buteo swainsoni	Swainson's hawk	ST, BLMS, BBC	This hawk prefers open grasslands and desert-like habitats. It is common to see this hawk perched on a fence post in a prairie or open range. The Swainson's Hawk also inhabits agricultural areas, and is known to follow farmer's tractors in search of insect or rodent prey.	None. No suitable habitat is found within the Project site. Not observed during field surveys.
Falco columbarius	merlin	WL	Merlins breed in open and semiopen areas across northern North America. The boreal subspecies usually nests near forested openings, in fragmented woodlots, near rivers, lakes, or bogs, and on lake islands. The Pacific Northwest subspecies seems to nest	None. No suitable habitat is found within the Project site. Not observed during field surveys.

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			mostly in coastal areas and along rivers. The prairie subspecies nests in shrubs and trees along rivers and in small groves of deciduous trees planted as wind breaks. Merlins are increasingly breeding in towns and cities, where they often take over crow nests in conifers planted in residential areas, schoolyards, parks, and cemeteries. During migration Merlins stop in grasslands, open forests, and coastal areas. They winter in similar habitat across the western United States and southern United States, along the Pacific coast to Alaska, and along the Atlantic coast to southern New England.	
Phrynosoma blainvillii	coast horned lizard	SSC, BLMS	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland and riparian woodlands.	None. No suitable habitat is found within the Project site. Not observed during field surveys.
Vireo bellii pusillus	least Bell's vireo	FE, SE	Least Bell's vireos primarily occupy riverine riparian habitats that typically feature dense cover within 1-2 m of the ground and a dense, stratified canopy. Typically, it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses. 2,000 feet elevation in the interior.	None. No suitable habitat is found within the Project site. Not observed during field surveys.
Xerospermophilus	Mohave	ST	This species is rare throughout its range, populations in the western Antelope Valley	None. No suitable habitat is found within the Project site. Furthermore, the

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
mohavensis	ground squirrel		(west of SR-14) appear to be extirpated. Optimal habitats are open desert scrub, alkali desert scrub, Joshua tree, and annual grasslands. Has been found from 505 - 1,525 m. (1,800 - 5,000 ft.) elevation.	Project site is outside of the species range. Not observed during field surveys.

Legend
<u>*Federal Endangered Species Act (ESA) Listing Codes:*</u> federal listing is pursuant to the Federal Endangered Species Act (ESA) of 1973, as amended. The official federal listing of Endangered and Threatened Animals is published in the Federal Register, 50 CFR 17.11. FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range. FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future. FC = federal candidate for listing. FPT = federally proposed threatened. <u>*California Endangered Species Act (CESA) Listing Codes:*</u> state listing is pursuant to §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals. The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, and Section 670.5. SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range. ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future. SCT = state candidate for listing as threatened. SCE = state candidate for listing as endangered. <u>*California Department of Fish and Wildlife (CDFW):*</u> SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW has designated certain vertebrate species as "species of special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. Fully protected = animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. WL = watch list: these birds have been designated as "Taxa to Watch" in the *California Bird Species of Special Concern report* (Shuford and Gardali 2008). The report defines "Taxa to Watch" as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal

threatened and endangered lists (and remain on neither), or (3) are currently designated as "fully protected" in California.

United States Fish and Wildlife Service (USFWS):
BCC = USFWS bird of conservation concern: listed in the USFWS'S 2008 *Birds of Conservation Concern* report. The report identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

United States Forest Service (USFS):
FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

United States Bureau of Land Management (BLM):
BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing my become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

California Department of Forestry and Fire Protection (CDF):
CDF: S = CDF sensitive: species is a California Department of Forestry and Fire Protection sensitive species. The Board of Forestry classifies as sensitive species those species that warrant special protection during timber operations.

Sources:

- A Guide to the Reptiles and Amphibians of California (CaliforniaHerps.com 2023).
- *A Field Guide to Hawks of North America, Second Edition* (Clark and Wheeler 2001).
- *Atlas of Breeding Birds, Orange County, California* (Gallagher 1997).
- Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes 1994).
- *A Field Guide to Mammals of North America North of Mexico. Fourth Edition* (Reid 2006).
- *A Natural History of California* (Schoenherr 1992).
- *A Field Guide to Western Reptiles and Amphibians*, *Third Edition* (Stebbins 2003).
- Amphibian species accounts (Amphibiaweb 2023).
- *California Bird Species of Special Concern*: *A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California* (Shuford and Gardali 2008).
- Check-List of North American Birds, 7th edition (American Ornithologists' Union [AOU] 1998).
- *Complete Birds of North America* (National Geographic Society 2006).
- *Field Guide to the Birds of North America*, 4th Ed (National Geographic Society 2002).
- Fifty-first supplement to the AOU Check-List of North American Birds (Chesser et. al. 2010).
- Life History Accounts and Range Maps (CDFW 2023e).

- *Life on the Edge: A Guide to California's Endangered Natural Resources. Wildlife* (Thelander et al. 1994).
- *Mammals of North America* (Bowers et al. 2004).
- *Mammals of California* (Eder 2005).
- *Mammals of North America* (Kays and Wilson 2002).
- Mammalian Species of Special Concern in California (Williams 1986).
- *Mammal Species of the World* (Wilson and Reeder 2005).
- NatureServe Explorer (NatureServe 2023).
- *National Audubon Society, the Sibley Guide to Birds* (Sibley 2000).
- RareFind, CDFW, California Natural Diversity Database (CNDDB) (CDFW 2023).
- *Reference Atlas to the Birds of North America* (National Geographic Society 2003).
- *Shorebirds of North America. The Photographic Guide* (Paulson 2005).
- Special Animals List (CDFW 2023h).
- Standard Common and Current Scientific Names (Center for North American Herpetology website [CNAH] website 2022).
- *The Smithsonian Book of North American Mammals* (Wilson and Ruff 1999).
- Terrestrial Mammal Species of Special Concern in California (Bolster 1998).