Redlands Boulevard and Hemlock Avenue Gas Station Project

MSHCP Consistency Analysis and Habitat Assessment

prepared for

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Executive Summary

This Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis and Habitat Assessment Report was prepared for the Redlands Boulevard and Hemlock Avenue Gas Station Project (project) given the project's location within the MSHCP Plan Area. The report was completed to document existing site conditions and to determine potential impacts to sensitive biological resources covered by the MSHCP. The project site consists of approximately 7.53 acres and is located in the city of Moreno Valley, Riverside County, California, on a vacant lot southwest of the intersection of Redlands Boulevard and Hemlock Avenue. Rincon Consultants, Inc. (Rincon) understands that the majority of the project site is currently proposed for the construction of a gas station with a convenience store and service restaurant, and that the southern portion of the project site will be left undeveloped.

The Western Riverside County Regional Conservation Authority (RCA) MSHCP information tool was queried using the parcel information for the project site to determine potential MSHCP sensitive species survey and conservation requirements for the project. The proposed project does not occur within a survey area for amphibians, mammals, Criteria Area or Narrow Endemic Plant Species, but it does occur within a survey area for burrowing owl (*Athene cunicularia*) (BUOW). In addition, this MSHCP Consistency Analysis also includes assessments for riparian/riverine habitat, riparian/riverine species and vernal pool/fairy shrimp habitat as well as the urban/wildlands interface.

The project site consists of vacant land which has been subject to periodic mechanical disturbance (Google Earth Pro 2021) and is dominated by annual, ruderal vegetative species.

The project site contains potentially suitable nesting habitat for BUOW. However, no BUOW sign was detected within the study area. The study area is defined as the 7.53-acre project site and an additional 500-foot buffer for the BUOW habitat assessment. A BUOW habitat assessment and focused BUOW surveys of the study area were previously conducted by Helix Environmental Planning, Inc. (Helix) in November 2017 and April 2018, respectively. Potentially suitable burrows were detected, however BUOW or sign thereof was not observed.

The project site contains riparian/riverine resources, but does not contain habitat for riparian/riverine/vernal pool species. Project implementation would result in permanent impacts to 0.21 acre of riparian/riverine area. A Determination of Biologically Equivalent or Superior Preservation (DBESP) is therefore required. The project does not propose any impacts to urban/wildlands interfaces. With implementation of an approved DBESP, the project would be consistent with the MSHCP.

1 Introduction

This report documents the findings of an MSHCP Consistency Analysis and Habitat Assessment prepared to demonstrate compliance with the Western Riverside County MSHCP. This assessment describes existing site conditions and includes a discussion of potential impacts to sensitive biological resources covered by the MSHCP for the 7.53-acre Redlands Boulevard and Hemlock Avenue Gas Station Project (project), located in the city of Moreno Valley (city), Riverside County, California (Figure 1). An MSHCP-required BUOW habitat assessment and focused BUOW surveys of the study area were previously conducted by Helix in November 2017 and April 2018, respectively (Helix 2018). Potentially suitable burrows were detected, however BUOW or sign thereof was not observed. This MSHCP Consistency Analysis and Habitat Assessment contains the results of an update habitat assessment for BUOW and riparian/riverine resources, and includes an analysis of potential project-related impacts to the study area. The study area includes the 7.53-acre project site and an additional 500-foot buffer for the BUOW habitat assessment. The study area therefore comprises 51.1 acres.

1.1 Project Location

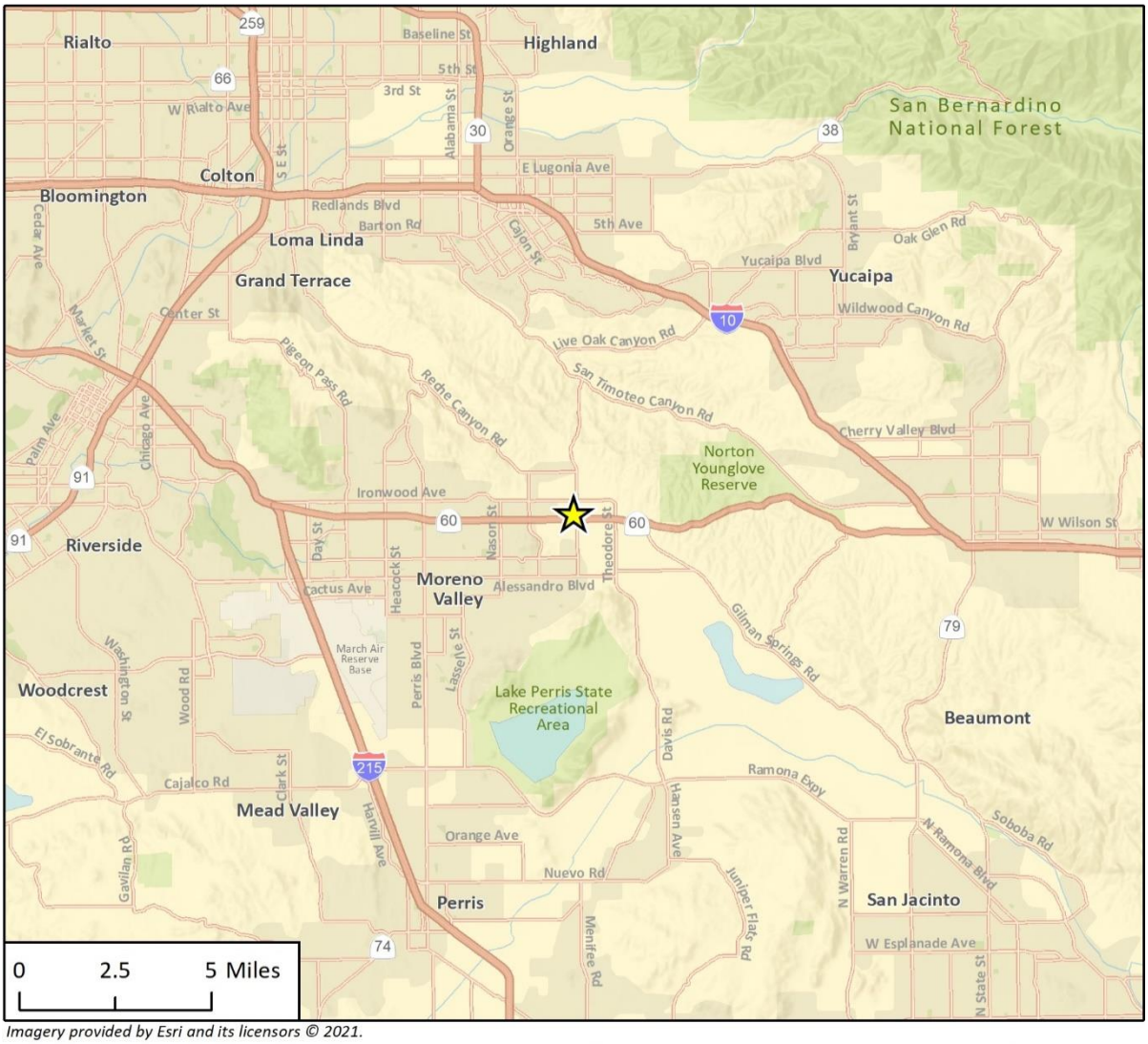
The project site consists of 7.53 acres which is located southwest of the intersection of Redlands Boulevard and Hemlock Avenue within the city (Figure 2). The site encompasses Assessor's Parcel Number (APN) 488-310-012 and adjacent public road right-of-way and is located within Township 3 South, Range 3 West, and Section 2, San Bernardino baseline and meridian of the United States (U.S.) Geological Survey (USGS) *Sunnymead, California* 7.5-minute topographic quadrangle (Figure 3).

1.2 Project Description

The project would include the development of a gas station with 11 fueling stations (16 total dispensers) and a 5,123 square foot food mart/retail store. Of the 16 dispensers, 14 of the fueling stations would be gasoline dispensers and would be underneath a 5,581 square foot canopy. The remaining two fueling stations would be diesel dispensers underneath a 3,120 square foot canopy. An 18 x 12.5 x six-foot trash enclosure would also be constructed. The project would provide a total of 18 parking spaces in a surface lot with two stalls for electric vehicle parking. Additional improvements include curb and sidewalk improvements, landscaping, and storm drain improvements. Access to the project site would be provided from two driveways off Redlands Boulevard and Hemlock Avenue. Of the 7.53-acre site, only approximately 2.84 acres would be developed; the remaining 4.27 acres would remain undeveloped.

The project would also modify an existing roadside drainage channel along the west side of Redlands Boulevard. These modifications include removal of two existing 24-inch reinforced concrete pipes (RCPs) with headwalls that outlet into the roadside drainage channel near the intersection of Redlands Boulevard and Hemlock Avenue, replacing the roadside drainage channel with an underground 54-inch RCP, and removal of an existing concrete box culvert that currently conveys flows under Spruce Avenue. The proposed 54-inch RCP would then outlet into an existing concrete channel south of Spruce Avenue and west of Redlands Boulevard.

Figure 1 Regional Location



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Project Location

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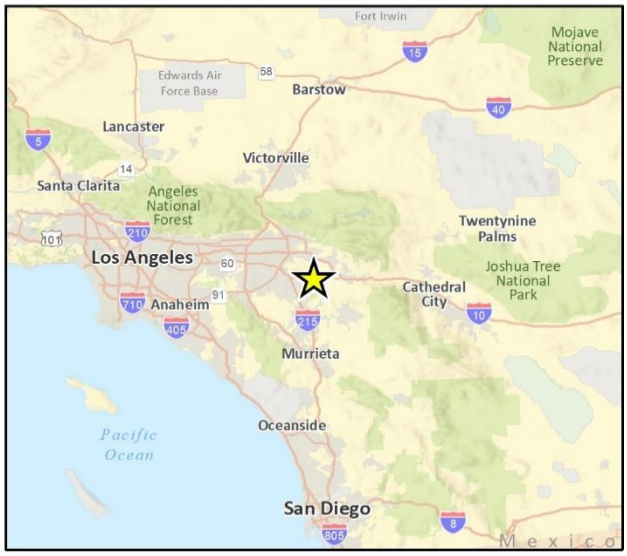
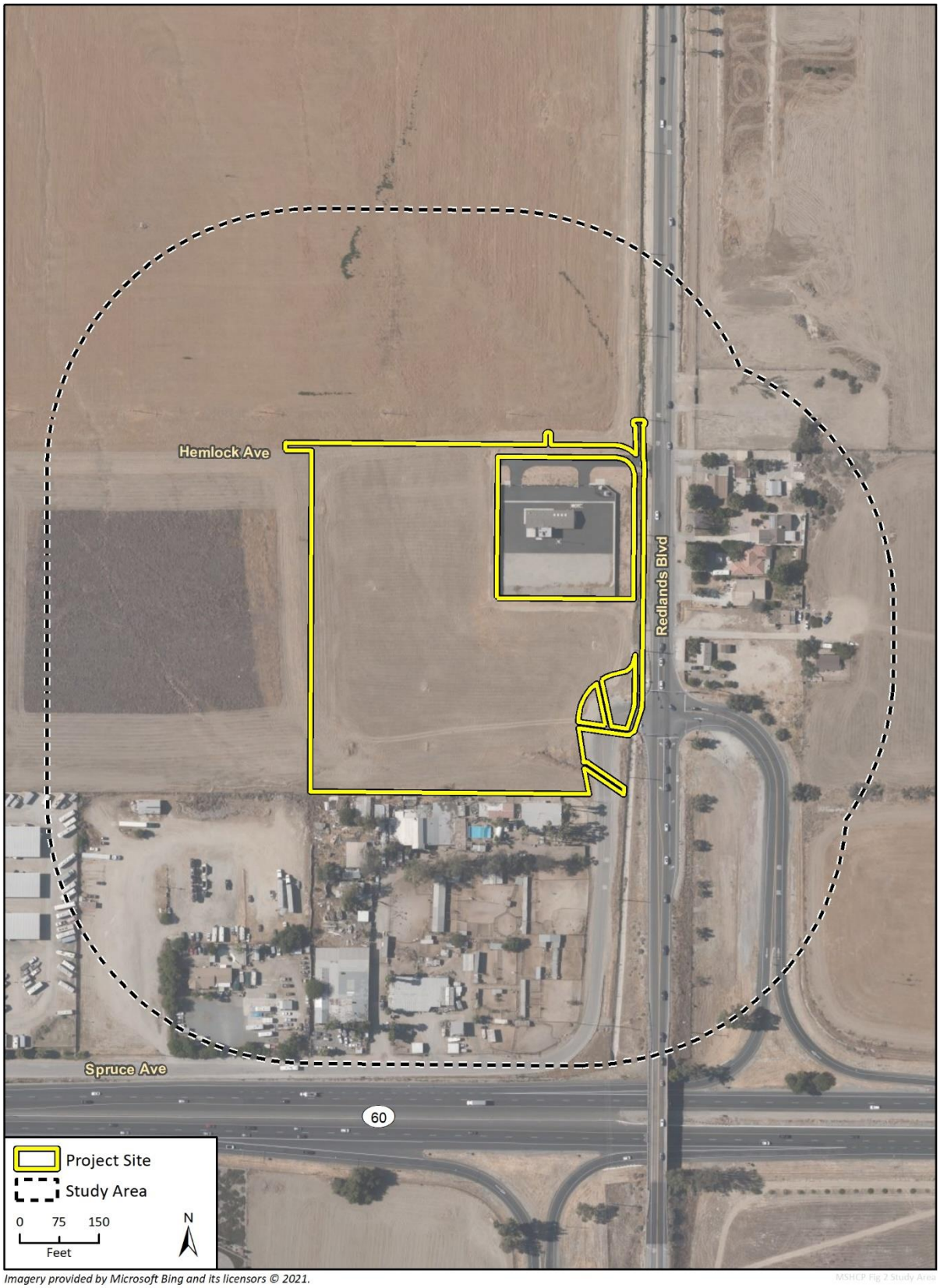


Figure 2 Project Location



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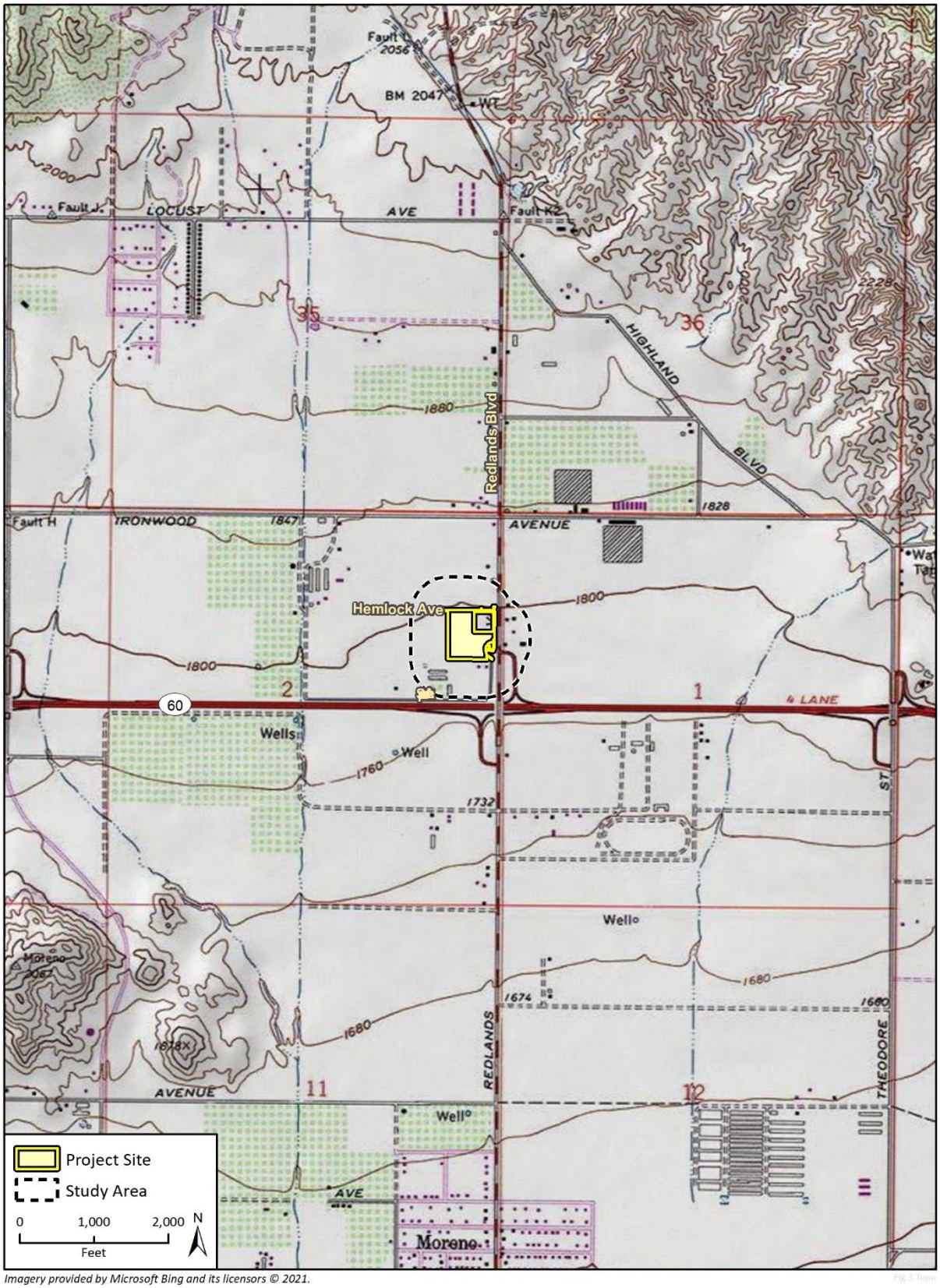
MSHCP Fig 2 Study Area

Figure 3 Topographic Map of Project Site



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Construction of the project would start in January 2022 and is estimated to be completed in December 2022 for a total construction period of 12 months, although the project construction schedule would be adjusted as necessary depending on agency permitting efforts. Construction activities would include site preparation, grading, building construction, paving, and architectural coating (e.g., painting). During grading, approximately 300 cubic yards of soil would be exported. All construction would occur within the current conceptual limits of the project.

2 Methodology

2.1 Western Riverside County MSHCP Consistency Analysis

The proposed project was analyzed to determine consistency with the requirements set forth in the MSHCP. The RCA MSHCP Information Map Tool (Riverside County 2021) was queried using the parcel information for the project site to determine potential MSHCP sensitive species survey and conservation requirements for the project. According to the RCA MSHCP Information Map Tool, the MSHCP identifies this area as requiring a habitat assessment and potential focused surveys for BUOW. Helix previously conducted a BUOW habitat assessment in November 2017 and focused surveys in April 2018.

To ensure consistency with the requirements set forth in the MSHCP (Riverside County 2003), the study area was assessed, and geographic information systems (GIS) software was used to map the site in relation to MSHCP areas, including criteria cells, conservation areas, and wildlife movement corridors and linkages; study areas for plant, bird, mammal, and amphibian species; Criteria Area Species Survey Area (CASSA); and the Narrow Endemic Plant Survey Area (NEPSA).

The MSHCP also requires an assessment of the potentially significant project effects on riparian/riverine areas and vernal pools, if applicable. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. An assessment of potential indirect impacts to existing or proposed MSHCP conservation areas that may exist on or adjacent to the site through an urban/wildlands interface analysis must also be included.

2.2 Literature Review

Prior to the field visit, a literature review was conducted to establish the environmental and regulatory setting of the proposed project. The background and literature review included review of the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey: *Custom Soil Resource Report for Western Riverside Area, California* (2021a), *Sunnymead, California* USGS 7.5-minute topographic quadrangle (USGS 1979), literature detailing the habitat requirements of subject species, aerial photographs (Google Earth Pro 2021) and topographic maps. The MSHCP, species accounts, and other reference materials were reviewed for habitat assessment requirements as well as habitat suitability elements for special-status species. The primary objective of the habitat assessment was to evaluate the study area's potential to support special-status species as well as to determine the applicability of other MSHCP requirements as they pertain to the proposed project.

The California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB; CDFW 2021a), Biogeographic Information and Observation System (BIOS; CDFW 2021b) and U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2021a) were reviewed to determine if any special-status wildlife, plant or vegetation communities were previously recorded within five miles of the study area. The *National Wetlands Inventory* (NWI; USFWS 2021b) was reviewed to determine if any wetland and/or non-wetland waters had been previously documented

and mapped on or in the vicinity of the study area. Other resources reviewed included the California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants of California* (2021), CDFW *Special Animals List* (2021c), and CDFW *Special Vascular Plants, Bryophytes, and Lichens List* (2021d).

2.3 Field Reconnaissance Survey

A field reconnaissance survey of the study area was conducted to document existing site conditions and the potential presence of sensitive biological resources, including sensitive plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. Rincon biologist Christian Nordal conducted the reconnaissance survey on March 22, 2021 from 0730 - 0900. The biologist surveyed the study area on foot and visually inspected the area with the aid of binoculars (8 x 36) as necessary.

Identification of potentially jurisdictional aquatic resources during the reconnaissance survey included potential wetlands and non-wetland waters that may constitute waters of the U.S., waters of the State, streambeds, and/or riparian/riverine or vernal pool resources. During the survey, the biologist noted general site characteristics, documented vegetation, and took representative photographs. Survey conditions included a temperature of 56 degrees Fahrenheit (°F), clear skies, and winds of 0-3 miles per hour (mph).

2.3.1 Vegetation Mapping

Vegetation communities observed on site were mapped on a site-specific aerial photograph. All accessible portions of the study area were covered on foot. Vegetation was generally classified using the systems provided in the *Preliminary Descriptions of the Terrestrial Communities of California* (Holland 1986), and modified using *A Manual of California Vegetation, Second Edition* (MCV) (Sawyer et al. 2009) as necessary to reflect the existing site conditions.

2.3.2 Flora

All plant species observed in the study area were noted, and plants that could not be identified in the field were identified later using taxonomic keys. The reconnaissance survey included a directed search for sensitive plants that would have been apparent at the time of the survey. Floral nomenclature for native and non-native plants follows Baldwin et al. (2012) as updated by The Jepson Online Interchange for California Floristics (Jepson Herbarium 2014). For ornamental plants, nomenclature follows the PLANTS Database (USDA 2021b), and for special-status plants follows Baldwin et al. (2012) and CNPS (CNPS 2021).

2.3.3 Fauna

Animal species observed directly or detected from calls, tracks, scat, nests, or other signs in the study area were noted. The survey was performed during the day; therefore, the identification of nocturnal animals was limited to signs (if present). Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (2021) and for mammals, Wilson & Reeder (2005).

2.3.4 Riparian/Riverine Habitat Assessment

MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, describes the process through which protection of riparian/riverine areas, vernal pools, and fairy shrimp species will occur within the MSHCP Area. Protection of these resources is important for a number of MSHCP conservation objectives. An assessment of a project's potentially significant effects on riparian/riverine areas, vernal pools, and fairy shrimp habitat is required. Guidelines for determining whether or not these resources exist on site are described as follows:

- **Riparian/Riverine Areas** are described by the MSHCP as "lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens which occur close to or which depend upon soil moisture from a nearby fresh water source or areas with fresh water flow during all or a portion of the year." Riparian/riverine areas under the MSHCP also include drainage areas that are vegetated or have upland (non-riparian/riverine) vegetation that drain directly into an area that is described for conservation under the MSHCP (or areas already conserved).
- **Vernal Pools** are described by the MSHCP as "seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indictors of hydrology and /or vegetation during the drier portion of the growing season."
- **Listed Fairy Shrimp Habitat** is described in the MSHCP as habitat for Riverside fairy shrimp (*Streptocephalus woottoni*), vernal pool fairy shrimp (*Branchinecta lynchi*), or Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and includes ephemeral pools, artificially created habitat, and/or other features determined appropriate by a qualified biologist.

In addition, Section 6.1.2 of the MSHCP states:

> With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

If found, riparian/riverine habitat and vernal pools within the study area were identified, mapped, and recorded during the field reconnaissance survey.

2.3.5 BUOW Habitat Assessment

The BUOW habitat assessment was conducted on March 22, 2021 between the hours of 0730 - 0900. Rincon biologist Christian Nordal walked the entire study area (i.e., the project site and 500-foot buffer, where accessible) to identify the presence or absence of suitable BUOW habitat. Areas of particular interest included all topographic relief areas characterized by low growing vegetation, grasslands, shrub lands with low density shrub cover, earthen berms, and any large debris piles. Access to adjacent residential properties to the north was not granted. Therefore, these areas were surveyed with binoculars to the maximum extent feasible from the edge of the project site.

2.4 Jurisdictional Waters and Wetlands Delineation

Rincon biologists Jared Reed and Christian Nordal subsequently conducted a formal jurisdictional delineation on April 19, 2021 of potential wetlands and non-wetland waters that may constitute

waters of the U.S., waters of the State, streambeds, and/or riparian/riverine or vernal pool resources on and adjacent to the project site. Biologist Christian Nordal conducted a subsequent jurisdictional delineation field survey of an additional portion of the roadside drainage channel on May 27, 2021.

3 Existing Conditions

This section provides a brief discussion of the existing conditions observed on site. Site photographs are located in Appendix B. The study area is located in arid western Riverside County, which is characterized by long, hot, dry summers and short, relatively wet winters. Average temperatures range from 64 to 94°F during the summer and 40 to 70°F during the winter. The average annual precipitation in the region is 13 inches (Weather Currents 2021).

3.1 Land Use

The project site is a single vacant parcel and adjacent public road right-of-way that appeared to be a fallow/abandoned agricultural field. Surrounding land uses include residences and commercial uses to the south and vacant land to the west and north. Redlands Boulevard and Spruce Avenue border the project site to the east. In addition, the Redlands and Hemlock Booster Station is adjacent to the project site's northeastern boundary. State Route (SR) 60 is approximately 560 feet south of the project site.

3.2 Watershed and Drainages

The study area is within the approximate 2,840-square mile Santa Ana River Watershed. The Santa Ana River Watershed is the largest watershed drainage south of the Sierra Nevada Mountains and is located in a highly urbanized setting. The Santa Ana River spans San Bernardino, Riverside, and Orange counties and is about 100 miles long with more than 50 tributaries.

The jurisdictional delineation identified the presence of two potentially jurisdictional features in the east portion of the project site; a roadside drainage channel and an agricultural drainage ditch. The roadside drainage channel conveys flows along the east edge of the project site and west of Redlands Boulevard in an open, soft-bottomed channel. The channel bed is comprised of a mix of cobbles, gravel, and weirs and contains debris. This channel also contains steep banks that are densely vegetated with mostly non-native grass species. Flows are collected by a single box culvert under Spruce Avenue and are conveyed through a concrete channel south of Spruce Avenue under SR 60, where flows are again conveyed through an earthen channel. The channel continues to convey flows in a southward direction along the west side of Redlands Boulevard until it eventually conveys flows into an underground storm drain system at Dracaea Avenue. According to City of Moreno Valley Planning staff via email communication, this storm drain system eventually conveys flows into downstream waters.

The agricultural drainage ditch is a small feature in the southeast portion of the project site that becomes incised where sheet flows from the west converge in a single area. Evidence of water flow west and upstream of the incised feature is obscured from disking activities, and is weak in the incised feature itself due to dense non-native grass and ruderal vegetation.

3.3 Topography and Soils

The project site consists of vacant land that has been graded and periodically disturbed by mechanical disking. The site is relatively level with elevations on site ranging from 1,792 feet above

mean sea level (msl) at the northern end and 1,780 feet above msl at the southern end.

The USDA NRCS Web Soil Survey identifies two soil map units in the project site (Figure 4) (USDA NRCS 2021a). These soil units are from the USDA NRCS Soil Survey of the Western Riverside Area, California, which was conducted on a broader scale than this study and did not necessarily include on site observations. The physical characteristics of the soil units, as described below, are general and not necessarily indicative of characteristics currently present within the study area. The soils on the site have been disturbed and likely no longer resemble the mapped soil types. None of these soils are considered hydric. The descriptions of the soil map units (USDA NRCS 2021c) are presented below.

3.3.1 San Emigdio Soils

Two soil types of the San Emigdio series occur on site: San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded (SeC2) and San Emigdio loam, 2 to 8 percent slopes (SgC). The San Emigdio series consists of very deep, well drained soils that form in dominantly sedimentary alluvium. They are found on fans and floodplains and typically have low slopes. They are used for growing citrus fruit, alfalfa, and dryland grain and uncultivated areas are typically annual grasses and forbs (USDA NRCS 2021c). Soils on site have been tilled in the past for agricultural purposes.

3.4 Vegetation Communities

Three vegetation communities/land cover types occur within the study area: *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance wild oats and annual brome grasslands, Developed, and Disturbed areas (Figure 5). A list of plant species observed within the project site is included as Appendix C.

3.4.1 Annual Brome Grassland

Annual brome (*Bromus* spp.) grasslands are annual non-native grasslands with more than 60% of the herbaceous layer consisting of *Bromus* species. The entire project site consists of land that is regularly disturbed by tilling, resulting in annual brome grassland as the only habitat on site. Species diversity is limited, with only annual grassland species observed including red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), Rancher's fiddleneck (*Amsinckia menziesii*), and short-pod mustard (*Hirschfeldia incana*). Annual brome grassland comprises 28.3 acres in the study area.

3.4.2 Developed

Developed areas within the study area are comprised of residences and commercial centers, as well as associated ornamental vegetation and the Redlands and Hemlock booster station. Developed areas comprise 19.7 acres in the study area.

3.4.3 Disturbed

Disturbed areas within the study area are comprised of very little grassy and ruderal vegetation and contain bare ground that has been mechanically disturbed. Disturbed areas comprise 3.1 acres in the study area.

Figure 4 USDA Soils Map

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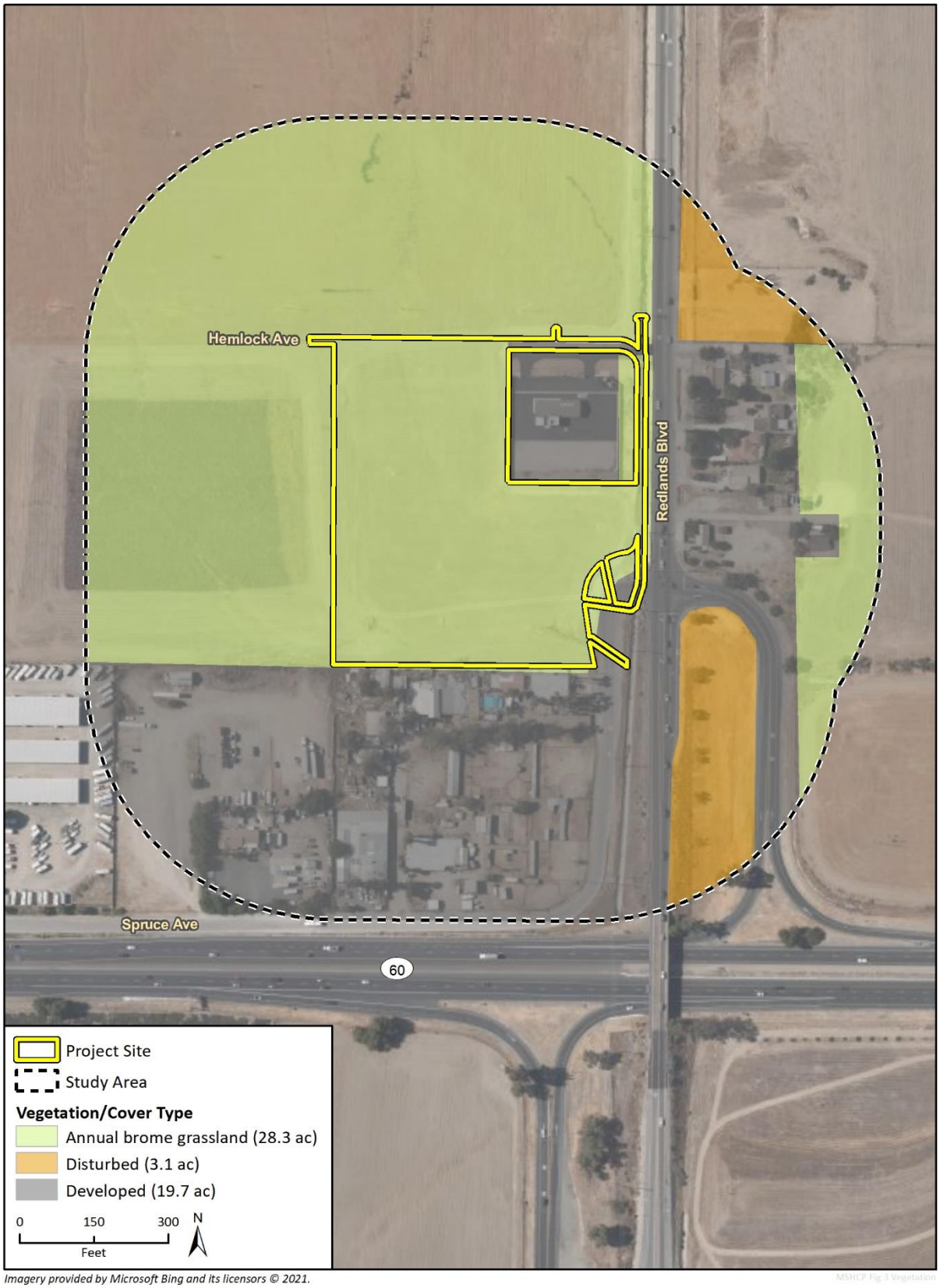
Figure 5 Vegetation Communities and Land Cover Types



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MSHCP Fig 3 Vegetation

3.5 General Wildlife

The study area provides limited habitat for wildlife species that commonly occur within urban communities in Riverside County. Common urban-adapted avian species such as American kestrel (*Falco sparverius*), Bewick's wren (*Thryomanes bewickii*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Spinus psaltria*), and Anna's hummingbird (*Calypte anna*) were observed in the study area during the survey. Numerous small mammal burrows likely belonging to California ground squirrels (*Otospermophilus beecheyi)* and an individual California ground squirrel were observed throughout the site. Sensitive species with potential to occur within the site are discussed in Section 4.0.

4 Western Riverside County MSHCP Consistency Analysis

4.1 MSHCP Requirements

The MSHCP establishes habitat assessment requirements for certain species of plants, birds, mammals, and amphibians. The study area is located within the Reche Canyon/Badlands Area Plan. It is not located within a Cell Group or Criteria Cell, but it is within the San Timoteo Habitat Management Unit. The study area does not occur within any required amphibian and mammal habitat assessment areas, CASSA or NEPSA, but it does occur within a BUOW survey area (Appendix A).

This habitat assessment addresses the potential for sensitive biological resources to occur within the study area. The habitat assessment addresses the presence/absence of riparian/riverine areas and vernal pools in the study area, includes an urban/wildlands interface analysis, and identifies any migratory corridors and linkages located on or in the vicinity of the study area.

4.2 Habitat Assessment

4.2.1 Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat

Section 6.1.2 of the MSHCP describes the process to protect species associated with riparian/riverine areas and vernal pools. As defined in the MSHCP, riparian/riverine areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or depend on a nearby freshwater source or areas that contain a freshwater flow during all or a portion of the year. Riparian/riverine areas under the MSHCP also include drainage areas that are vegetated or have upland (non-riparian/riverine) vegetation that drain directly into an area that is described for conservation under the MSHCP (or areas already conserved). These areas may support one or more species listed in Section 6.1.2 of the MSHCP. Vernal pools are seasonal wetlands that occur in depressions, typically have wetland indicators that represent all three parameters (soils, vegetation, and hydrology), and are defined based on vernal pool indicator plant species during the wetter portion of the growing season but normally lack wetland indicators associated with vegetation and/or hydrology during the drier portion of the growing season.

Based upon the findings of Rincon's reconnaissance survey and jurisdictional delineation, there are two features on the project site. The first is a roadside drainage channel that borders the western edge of Redlands Boulevard. This feature is regularly weed abated and contains an unlined substrate until Spruce Avenue, where the rest of the channel is concrete-lined running south until flows enter a culvert under SR 60. Vegetative species associated with the unlined portion of the roadside drainage channel include ripgut brome, slender wild oat (*Avena barbata*), wall barley, short-pod mustard, common sunflower (*Helianthus annuus*), arroyo lupine (*Lupinus succulentus*), red-stem filaree (*Erodium cicutarium*), sourclover (*Melilotus indicus*), brittlebush (*Encelia farinosa*), hairy vetch (*Vicia villosa*), and stinknet (*Oncosiphon pilulifer*).

The second feature is an erosional feature that is part of a larger discontinued wash that originates from the Box Springs Mountains and flows southeastward over much of the Moreno Valley. This

feature does not receive enough water long enough for it to have different soils or vegetation from the rest of the project site but does connect directly to a culvert under Spruce Avenue where it empties into the roadside drainage channel that borders Redlands Boulevard. Evidence of water flow west and upstream of the incised feature is obscured from disking activities and is weak in the incised feature itself due to dense non-native grass and ruderal vegetation. Vegetative species associated with this erosional feature includes ripgut brome, wall barley, slender wild oat, Russian thistle (*Salsola tragus*), sisymbrium (*Sisymbrium* spp.), and buffalo gourd (*Cucurbita foetidissima*).

These drainage features do not comprise U.S. Army Corps of Engineers (USACE)-jurisdictional waters of the U.S. under the Clean Water Act (CWA) as they are roadside ditches and erosional features and thus would not be regulated by USACE per the 2008 Rapanos Guidance but may qualify as Santa Ana Regional Water Quality Control Board (RWQCB)-jurisdictional waters of the State under the Porter-Cologne Water Quality Control Act and as CDFW-jurisdictional streambeds under California Fish and Game Section 1602. Approximately 620 linear feet and 0.09 acre of potential RWQCB-jurisdictional non-wetland waters of the State and 620 linear feet and 0.25 acre of potential CDFW-jurisdictional streambeds was determined to be present on the project site.

The two drainage features on the project site are considered riverine (Figure 6). These features do not contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or depend on a nearby freshwater source. The two features contain upland, non-riparian/riverine vegetative species and do not contain habitat for MSHCP Section 6.1.2 wildlife species. The features do contain a freshwater flow during a portion of the year, and they drain directly into an area that is described for conservation under the MSHCP or areas already conserved as they eventually convey flows via an underground storm drain system into downstream waters.

The riparian/riverine area in the roadside drainage channel is 0.21 acre and 520 linear feet. The riparian/riverine area in the erosional drainage ditch is 0.04 acre and 100 linear feet. The project site therefore comprises a total of 0.25 acre and 620 linear feet of riparian/riverine area.

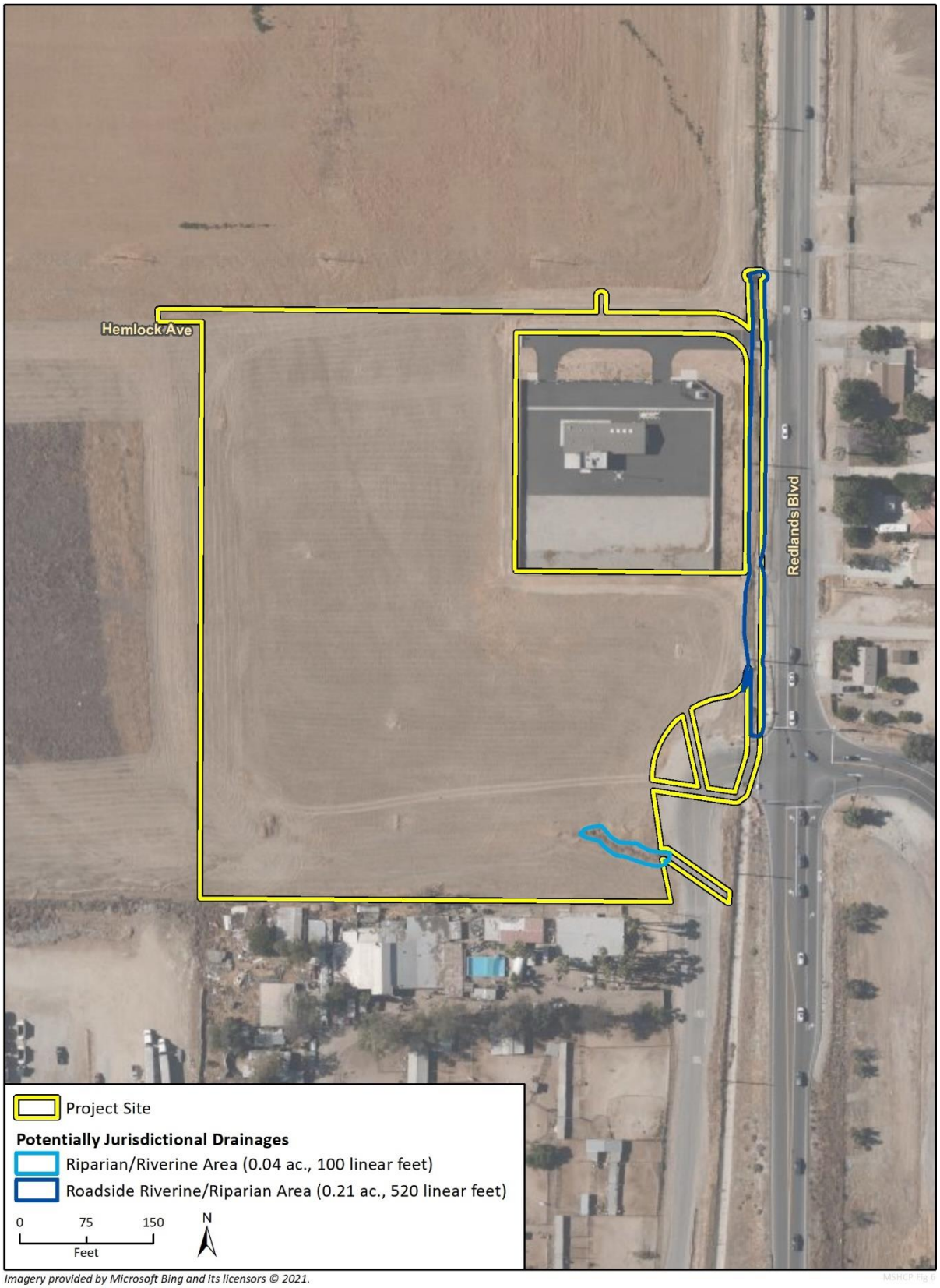
No pooling or signs of pooling water were observed on site and plant species composition does not differ throughout the site, indicating it does not receive sufficient flow or retention to act as vernal pool habitat. Therefore, no vernal pools are on site.

4.2.2 BUOW Habitat Assessment

BUOW are small crepuscular (active primarily during dusk and dawn) owls that typically modify and use burrows made by fossorial (adapted for burrowing or digging) mammals, such as California ground squirrels or American badgers (*Taxidea taxus*). BUOW use a variety of natural and modified habitats for nesting and foraging, typically characterized by low growing vegetation. BUOW habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf-courses, drainage ditches, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas. They also often utilize manmade structures, such as earthen berms; cement culverts; cement, asphalt, rock, or wood debris piles; or openings beneath cement or asphalt pavement. Reasons for their decline include habitat destruction, insecticide poisoning, rodenticide (particularly squirrel eradication), and shooting.

The BUOW habitat assessment occurred concurrently with the March 22, 2021 field survey. This assessment involved walking through potentially suitable habitat within the study area to achieve 100 percent visual coverage of the ground surface. Areas of particular interest included all

Figure 6 MSHCP 6.1.2 Riparian/Riverine Resources



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topographic relief, areas characterized by low growing vegetation, grasslands, shrub lands with low density shrub cover, earthen berms, and any large debris piles. Suitable surrogate burrow sites (California ground squirrel) were detected throughout the study area and the species has been historically documented approximately five miles west of the project site in 2007 (CDFW 2021b). Focused protocol surveys were conducted in April 2018 by Helix and results of the protocol surveys were that the entire site provides suitable habitat, but no BUOW sign or individuals were observed using the site.

The MSHCP requires pre-construction surveys for BUOW to be conducted in all areas of suitable habitat. Since the entire site consists of suitable habitat, a preconstruction survey for BUOW by a qualified biologist will be required within 30 days prior to site disturbance.

4.3 Riparian/Riverine Impacts and Mitigation

Project implementation would permanently impact 0.21 acre of riparian/riverine area in the roadside drainage channel and less than 0.01 acre of riparian/riverine area in the erosional feature (Figure 7). Total permanent impacts to riparian/riverine area are therefore 0.21 acre. No temporary impacts to riparian/riverine resources are anticipated, as the entirety of the roadside drainage channel would be converted to an underground storm drain and impacts to the erosional feature would be limited to the culvert under Spruce Avenue.

Compensatory mitigation for permanent impacts to riparian/riverine area would involve either purchase of establishment/re-establishment credits at a minimum 1:1 mitigation to impact ratio and/or rehabilitation credits at a 2:1 mitigation to impact ratio from the Riverpark Mitigation Bank, depending on availability of mitigation credits. To compensate for the permanent loss of 0.21 acre of riparian/riverine resources in the project site, the project applicant shall therefore either purchase 0.21 acre of establishment/re-establishment credits and/or 0.42 acre of rehabilitation credits from the Riverpark Mitigation Bank. A combination of re-establishment and rehabilitation credits may also be utilized as necessary and as approved by the Wildlife Agencies (CDFW and USFWS). This compensatory mitigation shall be implemented prior to ground disturbance associated with project construction activities. In accordance with Section 6.1.2 of the MSHCP, a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be prepared and will describe the project impacts and proposed mitigation in more detail.

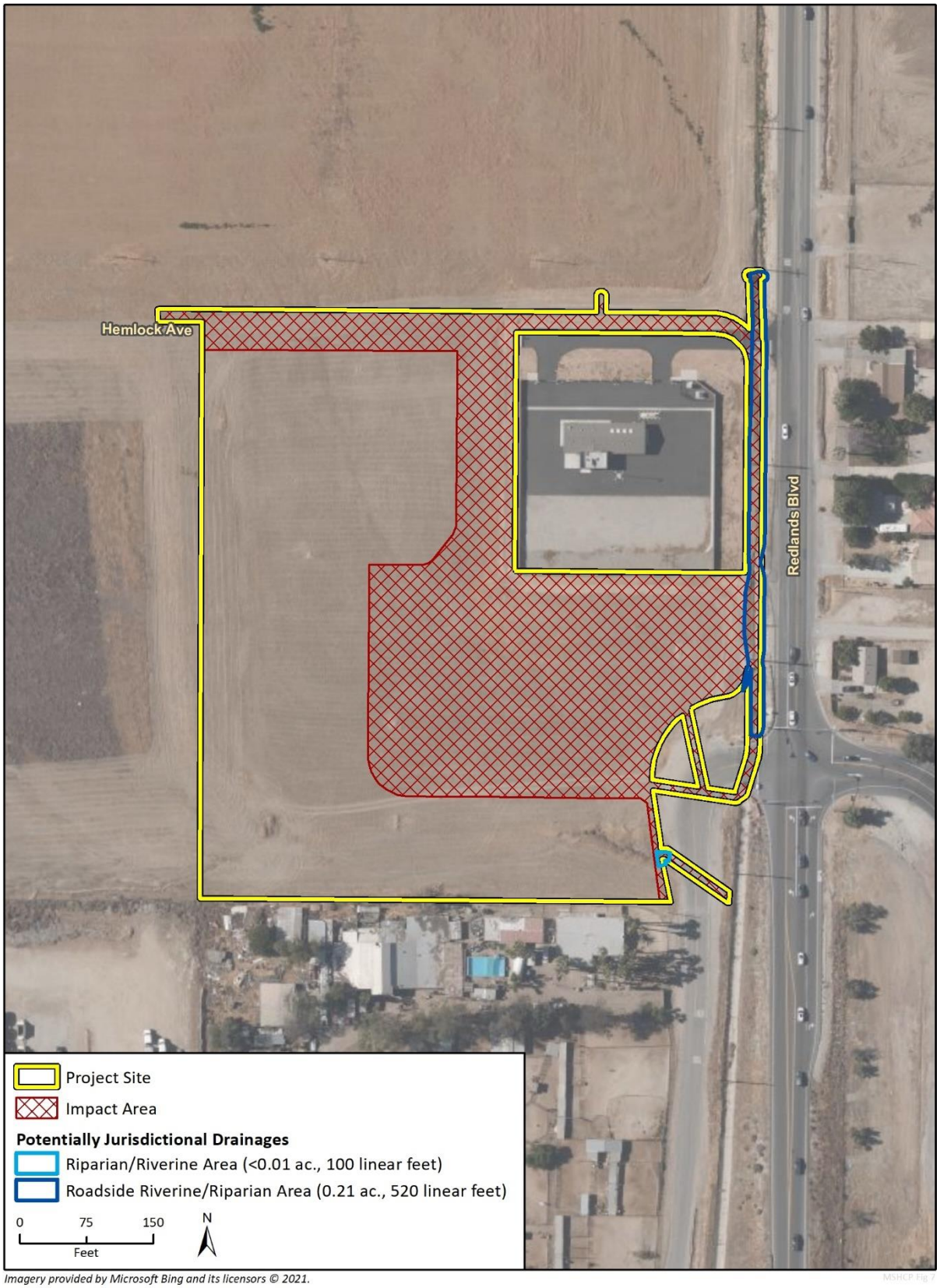
4.4 Urban/Wildlands Interface Guidelines

According to Section 6.1.4 of the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. The study area is not near a conservation area (the closest is located approximately 0.77 mile northeast of the study area); therefore, the Urban/Wildlife Interface Guidelines are not applicable. The study area is also separated from the nearest conservation area by residential and agricultural areas. The study area is isolated from urban/wildlands interfaces and the proposed project does not propose any impacts to these resources; therefore, no further actions related to urban/wildlands interface guidelines are required pursuant to the MSHCP.

4.5 MSHCP Consistency

BUOW and vernal pools were not observed in the study area. However, riparian/riverine features

Figure 7 Impacts to Riparian/Riverine Resources



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are present within the project site. Project implementation would impact a portion of these riparian/riverine features, therefore a DBESP describing proposed mitigation for these impacts will be prepared. As described above, a specified number and type of credits as approved by the City and Wildlife Agencies will be purchased from the Riverpark Mitigation Bank to compensate for the loss of riparian/riverine area.

As described above, a preconstruction survey for BUOW by a qualified biologist will be required within 30 days prior to site disturbance. If BUOW are not observed, no further mitigation is required. However, if BUOW are observed, then consultation with the Wildlife Agencies regarding an appropriate buffer from active burrows is required. The Wildlife Agencies may additionally require preparation and implementation of an approved BUOW Avoidance and Relocation Plan to ensure any project impacts to BUOW are avoided.

The project, therefore, would ensure that impacts to riparian/riverine resources are adequately mitigated, impacts to BUOW are avoided, and would not result in any direct or indirect impacts to MSHCP conservation areas. The project is therefore consistent with the MSHCP.

5 Limitations, Assumptions, and Use Reliance

An MSHCP consistency analysis and habitat assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Additionally, plants may not be identifiable outside the normal blooming period and it may not be possible to detect them during surveys. Plants could also become present if environmental conditions change, such as rain events, and dormant individual blooms. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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7 Certification and List of Preparers

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: September 9, 2021 Signed: 

Jared Reed, Senior Biologist

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Appendix A

The Western Riverside County RCA MSHCP Information Map Tool

Parcel

APN	488310012
Site Address	0
	0
Tract	0
Acreage	6.76
Old APN	Previous APN 488310004
Roughstep	2
HMU	SAN TIMOTEO
AP Subunit	
Cellgroup	Not in a Cellgroup
Criteria Cell	Not in a Criteria Cell
	Conservation Description

SURVEY AREAS

Amphibian	Not in an amphibian survey area
Owls	Burrowing Owl
Criteria Area Species	Not in a criteria area species survey area
Mammals	Not in a mammal survey area
Narrow Endemic Plants	Not in a narrow endemic plant survey area
Invertebrate	Not in an invertebrate survey area

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Appendix B

Site Photographs

Photograph 1. Facing north west of Redlands Boulevard looking at the roadside drainage ditch.

Photograph 2. Facing west from the Hemlock Avenue/Redlands Boulevard intersection.

Photograph 3. Representative ground squirrel burrows found throughout the study area.

Photograph 4. Facing south at annual brome grassland from northern project site boundary.

Photograph 5. Facing south and downstream at roadside drainage ditch.

Photograph 6. Downstream, southeast-facing view of erosional feature toward Spruce Ave.

Photograph 7. Showing where the erosional drainage feature meets the culvert under Spruce Avenue.

Appendix C

Observed Species List

Observed Species List

Scientific Name[1]	Common Name	Indicator Status[2]: Arid West Region
Amsinckia menziesii	Rancher's fiddleneck	NL (UPL)
Avena barbata	slender wild oat	NL (UPL)
Bromus diandrus	ripgut brome	NL (UPL)
Bromus rubens	red brome	NL (UPL)
Cucurbita foetidissima	buffalo gourd	NL (UPL)
Encelia farinosa	brittlebush	NL (UPL)
Erodium cicutarium	red-stem filaree	NL (UPL)
Helianthus annuus	common sunflower	FACU
Hirschfeldia incana	short-pod mustard	NL (UPL)
Hordeum murinum	wall barley	FACU
Malva parviflora	cheeseweed	NL (UPL)
Melilotus indicus	sourclover	FACU
Lupinus succulentus	arroyo lupine	NL (UPL)
Oncosiphon piluliferum	stinknet	FACU
Salsola tragus	Russian thistle	FACU
Sisymbrium ssp.	sisymbrium	NL (UPL)
Vicia villosa	hairy vetch	NL (UPL)

[1] Scientific Name as listed in the State of California 2016 Wetland Plant List for listed species (Lichvar et al. 2016), or from Jepson eFlora for taxa not currently included in the State of California 2016 Wetland Plant List

[2] Indicator Status Codes (Lichvar et al. 2012):

FACU Plants that typically occur in xeric or mesic non-wetland habitats but may frequently occur in standing water or saturated soils.

NL (UPL) Species is not listed and therefore treated as an upland plant in this region

Scientific Name	Common Name
Birds	
Calypte anna	Anna's hummingbird
Corvus corax	common raven
Corvus brachyrhynchos	American crow
Charadrius vociferus	killdeer
Falco sparverius	American kestrel
Hirundo rustica	Barn swallow
Mimus polyglottos	Northern mockingbird
Spinus psaltria	Lesser goldfinch
Streptopelia decaocto	Eurasian collared-dove
Sturnus vulgaris	European starling
Thryomanes bewickii	Bewick's wren
Tyrannus verticalis	Western kingbird
Tyrannus vociferans	Cassin's kingbird
Zenaida macroura	Mourning dove
Mammals	

Otospermophilus beecheyi	California ground squirrel