Appendix 5

Biological Resources Assessment

Magnolia Ranch Residential Project

Initial Study

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Biological Resources Assessment
Eastvale Orange Street Residential Development Project
City of Eastvale, Riverside County, California

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List of Exhibits

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SECTION 1: INTRODUCTION

FirstCarbon Solutions (FCS) prepared this Biological Resources Assessment (BRA) for the Eastvale Orange Street Residential Development Project (proposed project). The purpose of the BRA is to (1) document existing and potentially occurring biological resources on the project site and adjacent areas; (2) analyze potential project-related impacts on regulated biological resources; (3) summarize relevant local, State, and federal regulations; and (4) recommend appropriate measures to mitigate potential impacts on biological resources to less-than-significant levels.

1.1 - Project Location

The proposed project site is 10 gross acres (8.28 net acres) in size and located at 13175 Orange Street, in the City of Eastvale, in Riverside County, California (Exhibit 1). The project site is located south of Schleisman Road, approximately 1.25 miles west of Interstate 15 (I-15), and approximately 1.5 miles north of the Santa Ana River (Exhibit 2). Regional access to the project parcel is provided by I-15, which is located approximately 1.22 miles east of the project site, and local access is provided by Schleisman Road and Orange Street. The site consists of Assessor's Parcel Number (APN) 152-040-003, and is located within the *Corona North, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

1.2 - Project Description

MLC Holdings Inc. (Client) is proposing to develop a residential development community, consisting of 41 single-family detached homes on 8.28 acres for a density of 4.95 dwelling units per acre (du/acre). The homes would range from 2,054 square feet to 3,153 square feet in size and consist of 11 one-story homes with four bedrooms and 30 two-story homes with five bedrooms and a loft. The proposed project would include vehicular access from Schleisman Road and secondary access from Orange Street. The proposed project would provide two garage spaces and two driveway spaces per dwelling unit, for a total of 164 spaces, as well as an additional 59 parallel street parking spaces. A 45-foot-wide paseo would be located in the center of the community that would consist of a trail, bench, and dog station that would be maintained by the Homeowner's Association (HOA).

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Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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Source: bing Aerial Imagery.

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Exhibit 2
Local Vicinity Map

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

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

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

2.1.3 - Bald and Golden Eagle Protection Act

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

2.1.4 - Clean Water Act

Section 404

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

Section 401

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

2.2 - State

2.2.1 - CEQA Guidelines

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

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on 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.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

2.2.2 - California Endangered Species Act

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

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

2.2.3 - California Fish and Game Code

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

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

In addition to formal listing under FESA and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

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

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

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

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

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

2.2.4 - California Porter-Cologne Water Quality Control Act

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

2.2.5 - California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

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

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

2.2.6 - Regional and Local

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA, as well as a Natural Community Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP allows the participating jurisdictions to authorize "take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the take of Threatened, Endangered, and rare Species. Under the MSHCP, these agencies may grant "Take Authorization" for otherwise lawful actions–such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP Conservation Area–in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

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SECTION 3: METHODS

3.1 - Literature Review

This literature review provides a baseline from which to evaluate project impacts on biological resources potentially occurring on the project site and in the surrounding area.

3.1.1 - Existing Documentation

This report was based on the result of a previous due diligence memorandum prepared for the project site on February 10, 2021, by FCS. As part of the literature review, an FCS Biologist also examined existing environmental documentation for the project site and vicinity including literature pertaining to the habitat requirements of special-status species with the potential to occur in the project vicinity; and federal register listings, protocols, and species data provided by the USFWS and CDFW.

3.1.2 - Topographic Maps and Aerial Photographs

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

3.1.3 - Soil Surveys

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

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1 United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed January 18, 2021.

2 United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 18, 2021.

3 Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 18, 2021.

3.1.4 - Special-status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the CNDDB and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *Corona North, California,* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles.[4,5]

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

3.1.5 - Trees

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed applicable City and County ordinances pertaining to tree preservation and protection and ascertained whether tree replacement measures or permits for the removal of protected trees are required.

3.1.6 - Jurisdictional Waters and Wetlands

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

3.1.7 - Western Riverside County Multiple Species Habitat Conservation Plan

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed the Western Riverside County Regional Riverside Conservation Authority (RCA) MSHCP Information Map in order to determine what biological constraints are applicable to the proposed project.[8]

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4 California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.

5 California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed January 18, 2021.

6 California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.

7 United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 18, 2021.

8 Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

3.2 - Field Survey

An FCS Biologist conducted a reconnaissance-level field survey of the field site, and took notes on general site conditions, vegetation, and suitability of habitat for various special-status elements. Site photographs are provided in Appendix A. A preliminary assessment was conducted to determine the location of any existing drainages and the limits of project-related grading activities, to aid in determining whether a formal delineation of waters of the United States or State is necessary.

3.2.1 - Vegetation

An FCS Biologist identified common plant species observed during the reconnaissance-level survey based on visual characteristics and morphology and recorded their observations in a field notebook. Uncommon and fewer familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.[9,10] Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.[11] Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.8. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat types are based on the Manual of California Vegetation (MCV) and cross-referenced with the CDFW Natural Communities List.[12,13]

3.2.2 - Wildlife

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to have the potential to occur within the project site.[14] Appropriate field guides were used to assist in species identification during surveys, such as Peterson, Reid, and Stebbins.[15,16,17] Online resources such as eBird and California Herps were also consulted, as necessary. [18,19]

[9] Jepson Flora Project (eds.) 2021. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/. Accessed January 18, 2021.
[10] Calflora. 2021. Calflora: Information on California plants for education, research, and conservation. Website: http://www.calflora.org/. Accessed January 18, 2021.
[11] Baldwin, B. et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).
[12] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.
[13] California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed Updated September 9, 2020.
[14] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.
[15] Peterson, T.R. 2010. A Field Guide to Birds of Western North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.
[16] Reid, F. 2006. A Field Guide to Mammals of North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.
[17] Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Boston: Houghton Mifflin Harcourt.
[18] eBird. 2021. Online bird occurrence database. Website: http://ebird.org/content/ebird/. Accessed January 18, 2021.
[19] California Herps. 2021. A Guide to the Amphibians and Reptiles of California. Website: http://www.californiaherps.com/ Accessed January 18, 2021.

3.2.3 - Wildlife Movement Corridors

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

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

SECTION 4: RESULTS

This section summarizes the results of the literature search, database review, as well as three consecutive botanical and wildlife field surveys conducted by FCS Biologist, Alec Villanueva, on January 19, 2021. Weather conditions during the field survey were sunny and clear, with an approximate temperature of 62°F (degrees Fahrenheit). Wind speeds averaged 22 miles per hour (mph).

4.1 - Environmental Setting

Existing development on the project site includes a ranch-style single-family home. The property includes a large driveway and a front yard south of the main structure as well as an open-faced barn and several corrals located north of the main structure. Fenced fallow pastures dominate most of the property, presumably for grazing livestock. The vegetation found in these areas consists of low-growing ruderal vegetation and non-native grasses. The fields show evidence of frequent disturbance from mowing, evidenced by tire tracks and vegetation that does not exceed more than a few inches in height. The project site is surrounded by urban development in all directions, including single-family residential homes located to north and west, and an elementary school and an intermediate school located to the east and south, respectively (Exhibit 2; Attachment A).

4.1.1 - Topography

Topography within the study area is generally flat and ranges in elevation from approximately 610 to 620 feet above mean sea level, with the high point in the northeast corner generally sloping toward the southwest corner.

4.1.2 - Soils

Soils on the site are mapped by the NRCS as Ramona sandy loam (Exhibit 4).[20] Ramona Series soils can be found mostly in the interior valleys of Central California and the western part of Southern California. Ramona Series soils are formed in alluvium derived mostly from granitic and related rock sources. Ramona Series soils are typically well-drained with moderately-slow permeability and are also slightly acidic. This soil type is used mostly for the production of grain, grain-hay, pasture, irrigated citrus, olives, truck crops, and deciduous fruits. Uncultivated areas often have a cover of annual grasses, forbs, chamise, or chaparral vegetation.[21]

[20] Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey. United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 20, 2021.

[21] Natural Resources Conservation Service (NRCS). 2021. Soil Survey Official Soil Series Descriptions. United States Department of Agriculture (USDA). Website: http://www.nrcs.usda.gov/. Accessed January 20, 2021.

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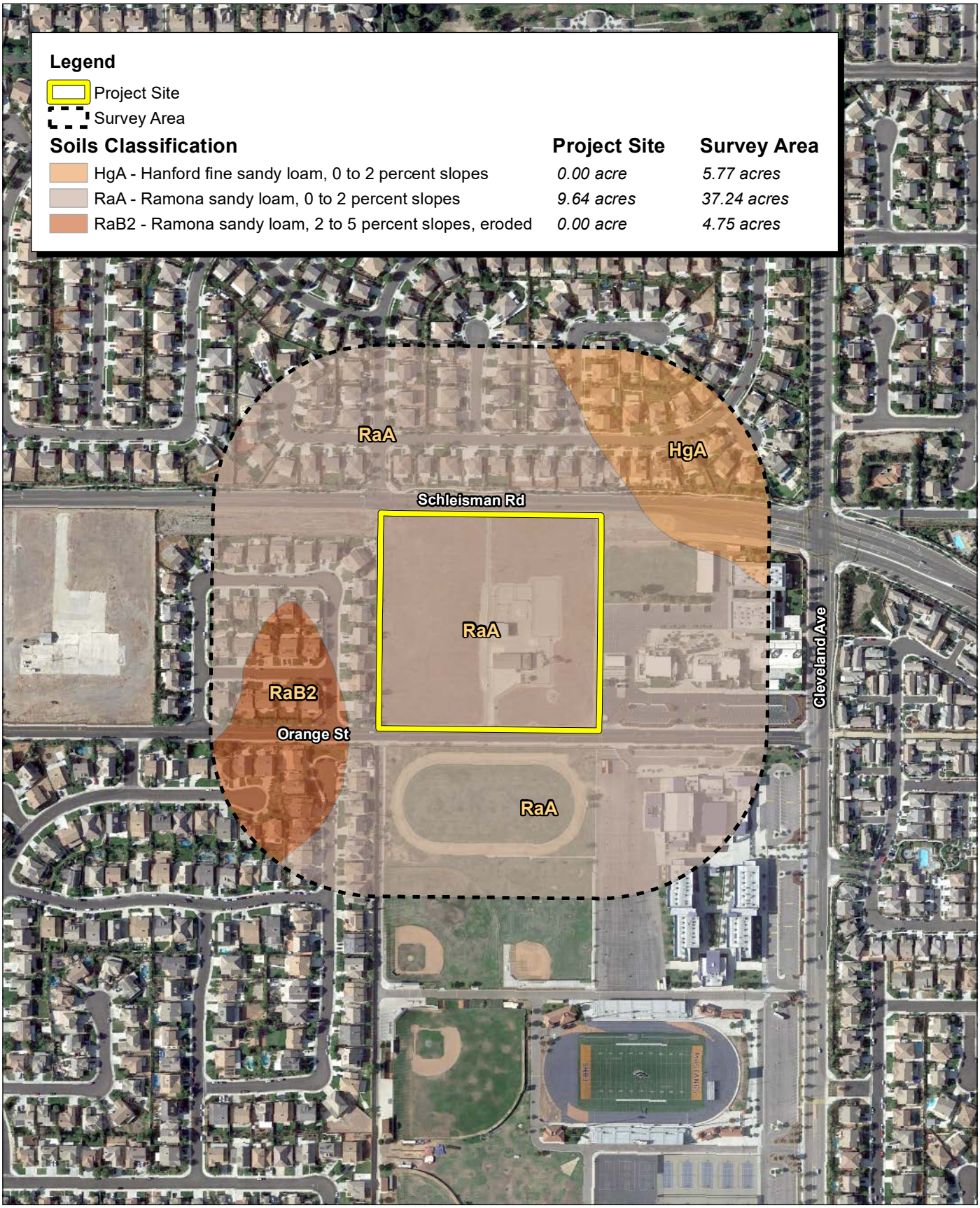

Source: Google Earth Aerial Imagery. USDA Soils Data Mart, Western Riverside Area.

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Exhibit 3
Soils Map

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4.2 - Vegetation Communities and Land Cover

4.2.1 - Ruderal/Disturbed–8.10 Acres

Ruderal/Disturbed habitat is classified as areas that have been physically disturbed by previous legal human activity, and which are no longer recognizable as a native or naturalized vegetation association, but which continue to retain a soil substrate. Vegetation, if present, is typically composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or show signs of past or present animal usage that precludes them from providing viable natural habitat for uses other than dispersal.

Examples of disturbed land include areas that have been graded or repeatedly cleared for fuel management purposes, as well as areas that have experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home-sites. Common species typically associated with the ruderal/disturbed vegetation community include Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), sow thistle (*Sonchus oleraceus*), common horseweed (*Conyza canadensis*), and a sub-dominance of non-native grasses.

The majority of the project site consists of ruderal fields, formerly used for pasturing livestock. The vegetation on the site shows evidence of recent mowing. Species observed on-site included redstem filaree (*Erodium cicutarium*), pineapple weed (*Matricaria discoidea*), cheeseweed (*Malva parviflora*), turkey mullein (*Croton setiger*), common horseweed, and Russian thistle. Non-native grasses observed included foxtail barley (*Hordeum jubatum*) and Mediterranean grass (*Schismus barbatus*) (Exhibit 5; Attachment A).

4.2.2 - Urban/Developed–1.55 Acres

Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. The urban/developed vegetation community includes land that has been constructed upon or otherwise covered with a permanent man-made surface. Areas where no natural land is evident, or because large amounts of debris or other materials have been placed upon it, may also be considered. Vegetation within the urban/developed land consists of ornamental landscape vegetation with little to no native species observed.

The center of the project site contains a driveway, a residential home, a shed, and several corrals (Exhibit 2). Ornamental vegetation can be found within the front yard of the residence, including hedges, bird of paradise flower (*Strelitzia reginae*), two Italian cypress trees (*Cupressus sempervirens*), three Mexican fan palm trees (*Washingtonia robusta*), a lemon tree (*Citrus* × *limon*), and a cherry tree (*Prunus avium*). Ruderal species including those listed above can also be between cracks in the pavement and growing in some of the corrals.

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Source: Google Earth Aerial Imagery.

FIRSTCARBON SOLUTIONS™

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Exhibit 4
Vegetation and Land Cover Map

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4.3 - Wildlife

The vegetation community and land cover types discussed above, may provide habitat for generalist and opportunistic wildlife species that are able to tolerate high levels of habitat disturbance and human-modified environments. Wildlife activity during the field survey was low and consisted exclusively of avian species, likely as a result of the high winds during the field survey.

4.3.1 - Birds

Bird species observed on-site during the field survey included mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and western meadowlark (*Sturnella neglecta*). The project site contains several ornamental palms (*Washingtonia robusta*) and Italian cypress trees that could provide suitable habitat for migratory or resident nesting birds. Four birdhouses in usable condition were observed on-site. Additionally, a remnant of a bird nest was observed in the corner of the on-site shed (Appendix A–Photograph 16).

4.3.2 - Mammals

Several small burrows less than 3 inches in diameter were observed throughout the ruderal vegetation that covers a majority of the project site. Such burrows could be constructed by small rodents such as Botta's pocket gopher (*Thomomys bottae*). Evidence of domesticated cat (*Felis catus*) in the form of scat was also observed on-site. No signs of bat roosts were observed during the field survey.

4.3.3 - Reptiles

The project site may also provide suitable habitat for reptiles adapted to human-modified environments including western fence lizard (*Sceloporus occidentalis*) and western side-blotched Lizard (*Uta stansburiana elegans*).

4.3.4 - Species Likely Absent

No amphibian or fish species were observed on-site during the field survey due to the lack of suitable aquatic habitat. Additionally, the project site does not contain suitable or foraging habitat for most amphibian species and dispersal to the project site is limited by the surrounding land use.

4.4 - Wildlife Movement Corridors

The project site was evaluated generally for evidence of wildlife movement corridors during the field survey; the scope of the survey did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. The project site is entirely developed and is surrounded on all sides by urban development and roadways and other man-made structures that serve as barriers to wildlife movement; therefore, the project site does not function as a wildlife movement corridor.

The nearest known wildlife corridor is the Santa Ana River, located approximately a mile south of the project site.

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

The following section discusses the existing site conditions and potential for sensitive biological resources to occur within the project site.

5.1 - Sensitive Natural Communities

The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities. Wetlands and riparian habitats are also typically considered sensitive natural communities and are addressed in the environmental review process.

The project site does not contain any sensitive natural communities.

5.2 - Special-status Plants

Fifty-five special-status plant species and CNPS sensitive species have been recorded within the *Corona North, California,* Topographic Quadrangle Map and the eight surrounding quadrangles by the CNDDB and CNPSEI.[22,23,24] The Special-status Plant Species Table (Appendix B, Table 1) lists 8 special-status plants have been recorded within a 5-mile radius of the project site.[25] The table also includes the species' status, required habitat, and potential to occur within the project site. Special-status plant species that were determined to have no potential to occur on-site are included in the table, along with the justification for their exclusion from further discussion. The following species were analyzed:

1. Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
2. Lucky morning-glory (*Calystegia felix*)
3. Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
4. Many-stemmed dudleya (*Dudleya multicaulis*)
5. Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
6. Jokerst's monardella (*Monardella australis* ssp. *jokerstii*)
7. Salt spring checkerbloom (*Sidalcea neomexicana*)
8. San Bernardino aster (*Symphyotrichum defoliatum*

The recorded species require specific habitat conditions associated with specific vegetation communities such as coastal sage scrub, riparian scrub, chaparral, grassland, cismontane woodlands, or wet meadows and playas; none of which are present on the project site. The disturbed state of

[22] United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con

[23] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.

[24] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed January 18, 2021.

[25] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.

the project site does not provide suitable habitat for any special-status species recorded in the CNDDB or CNPS searches due to the lack of natural vegetation communities and on-going man-made disturbance in the form of mowing. Therefore, no special-status plant species are expected to occur on the project site.

5.3 - Special-status Wildlife

Fifty-three federal and State-listed threatened and/or endangered wildlife species and State Species of Special Concern that have been recorded within the *Corona North, California,* Topographic Quadrangle Map. The Special-status Wildlife Species Table (Appendix B, Table 2) identifies 28 special-status wildlife species have been recorded within a 5-mile radius of the project site.[26] The table includes the species' status, required habitat types and features, and potential to occur within the project site. Appendix B, Table 2, includes all special-status wildlife species that have been determined unlikely to occur on-site, primarily based on the absence of suitable habitat and the lack of recorded occurrence in the project vicinity, along with the justification for their exclusion from further discussion.

5.3.1 - Burrowing Owl

Burrowing owl (*Athene cunicularia*) occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably the California ground squirrel (*Otospermophilus beecheyi*).

The project site contains many small burrows all less than 3 inches in diameter, which are too small to be occupied by burrowing owl. (Burrowing owls typically require a burrow opening of at least 4 inches in diameter).[27] However, the lack of suitably-size burrows does not preclude this species from occurring on-site, as burrowing owl may still utilize the site for foraging and are still capable of colonizing the project site. As of the date of this report, the CNDDB shows 26 records of burrowing owl within 5 miles of the project site.[28]

5.3.2 - Nesting Birds

The project site contains a few ornamental trees of sufficient size to provide suitable nesting locations for migratory or resident nesting birds. A total of four birdhouses are also present on-site that could provide suitable nesting locations for smaller birds.

[26] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.
[27] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation, Sacramento: California Department of Fish and Wildlife.
[28] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 20, 2021.

5.4 - Jurisdictional Waters and Wetlands

No wetlands or other hydrological features that meet the criteria as waters of the United States or waters of the State were observed within the proposed project site during the reconnaissance-level survey.

5.5 - Protected Trees

The Eastvale Municipal Code was reviewed regarding any applicable ordinances regarding tree preservation.[29] The project site does not contain any trees that would be regulated under the City of Eastvale Tree Ordinance as the code is only applicable to "street trees."

5.6 - Western Riverside County Multiple Species Habitat Conservation Plan

The project is located within the boundaries of Western Riverside County MSHCP. According to the Western Riverside County RCA MSHCP Information Map, the project site is located within a MSHCP survey area for burrowing owl and narrow endemic plants including San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).[30] Due to the disturbed/developed state of the project site, none of these plant species are likely to occur on-site; however, as stated above, marginally suitable habitat for burrowing owl is present on-site. No other MSHCP covered species or biological resource was observed on-site during the field survey.

[29] City of Eastvale Code of Ordinances. 2021. Title 130, Subdivisions. Chapter 130.48. Street Trees. Website: https://library.municode.com/ca/eastvale/codes/code_of_ordinances. Accessed January 22, 2021.

[30] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

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Rhaphiomidas terminatus abdominalis
Delhi Sands flower-loving fly

Arizona elegans occidentalis
California glossy snake

Symphyotrichum defoliatum
San Bernardino aster

Laterallus jamaicensis coturniculus
California black rail

Aquila chrysaetos
golden eagle

Centromadia pungens ssp. laevis
smooth tarplant

Icteria virens
yellow-breasted chat

Buteo swainsoni
Swainson's hawk

Vireo bellii pusillus
least Bell's vireo

Oncorhynchus mykiss irideus pop. 10
steelhead - southern California DPS

Southern Cottonwood Willow Riparian Forest
Southern Cottonwood Willow Riparian Forest

Lasiurus xanthinus
western yellow bat

Aspidoscelis hyperythra
orange-throated whiptail

Calystegia felix
lucky morning-glory

Coturnicops noveboracensis
yellow rail

Athene cunicularia
burrowing owl

Oncorhynchus mykiss irideus pop. 10
steelhead - southern California DPS

Legend

- Project Site
- 5-Mile Radius
- Plant (circular)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (specific)
- Multiple (specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

The following species (not shown on map) are also known to occur within this 5-mile radius area:

Scientific Name	Common Name
Abronia villosa var. aurita	chaparral sand-verbena
Agelaius tricolor	tricolored blackbird
Aimophila ruficeps canescens	southern California rufous-crowned sparrow
Anniella stebbinsi	Southern California legless lizard
Aspidoscelis hyperythra	orange-throated whiptail
Bombus crotchii	Crotch bumble bee
Catostomus santaanae	Santa Ana sucker
Coleonyx variegatus abbotti	San Diego banded gecko
Crotalus ruber	red-diamond rattlesnake
Dipodomys stephensi	Stephens' kangaroo rat
Dudleya multicaulis	many-stemmed dudleya
Elanus leucurus	white-tailed kite
Empidonax traillii extimus	southwestern willow flycatcher
Emys marmorata	western pond turtle
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar
Eumops perotis californicus	western mastiff bat
Gila orcuttii	arroyo chub
Monardella australis ssp. jokerstii	Jokerst's monardella
Nyctinomops femorosaccus	pocketed free-tailed bat
Polioptila californica californica	coastal California gnatcatcher
Setophaga petechia	yellow warbler
Sidalcea neomexicana	salt spring checkerbloom
Southern California Arroyo Chub/Santa Ana Sucker Stream	Southern California Arroyo Chub/Santa Ana Sucker Stream

CNDDB version 06/2021. Please Note:
The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), June 2021.

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Exhibit 5
CNDDB Special-Status Plant Species Occurrences (5-mile radius)

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SECTION 6: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential project impacts on regulated biological resources, including special-status species, and recommends measures to avoid and/or mitigate impacts to a less-than-significant level under CEQA.

6.1 - Impacts to Special-status Wildlife

6.1.1 - Burrowing Owl

Burrowing owl, a California Species of Special Concern, was assessed as having a moderate potential to occur on the project site. Though they are not expected to breed or nest on the project site, they may use the site for short periods during migratory movements through the area. Because FCS conducted the field survey outside of the burrowing owl breeding season (February 1–August 31), the possibility that burrowing owl could be present in the project vicinity cannot be entirely ruled out. Therefore, the construction and operation of the proposed project still has potential (albeit low potential) to impact to burrowing owl habitat or burrowing owl.

The proposed project is located within a MSHCP survey area for burrowing owl and contains marginally suitable habitat for this species.[31] In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*, it is recommended that the applicant commission a focused burrow survey (Step II, Part A) and pre-construction surveys to avoid direct take of burrowing owl.[32]

To avoid potential project impacts on burrowing owl that may temporarily utilize the project site and to ensure impacts to burrowing owls are less than significant under CEQA, it is recommended the project applicant implement the following Mitigation Measures (MMs):

MM BIO-1 Burrowing Owl Pre-Construction Surveys

1. No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified Biologist to conduct a pre-construction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with the California Department of Fish and Wildlife (CDFW) and Western Riverside County Regional Riverside Conservation Authority (RCA) survey guidelines.
2. On the parcel where the activity is proposed, the Biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and burrowing owl. The survey shall take

[31] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

[32] Western Riverside County Regional Conservation Authority (RCA). 2005. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. November 7.

place near sunrise or sunset in accordance with the CDFW and RCA guidelines. All burrows or burrowing owl shall be identified and mapped. During the breeding season (February 1–August 31), surveys shall document whether burrowing owl are nesting on or directly adjacent to disturbance areas. During the non-breeding season (September 1–January 31), surveys shall document whether burrowing owl are using habitat on or directly adjacent to any disturbance area. Survey results shall be valid only for the season during which the survey is conducted.

3. If burrowing owl are not discovered, further mitigation is not required. If burrowing owl are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls:
4. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified Biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone.
5. If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Burrowing owl shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any burrowing owl inside the burrow.

6.1.2 - Nesting Birds

The several ornamental trees and bird houses present on-site could provide suitable habitat for a variety of species of nesting birds. Construction activities that occur during the avian nesting season (generally February 1 to August 31) could disturb nesting sites for bird species protected under the Fish and Game Code or MBTA. The removal of trees during the nesting season could result in direct harm to nesting birds, while noise, light, and other man-made disturbances may cause nesting birds to abandon their nests.

The project applicant shall implement the following avoidance and minimization measures to ensure that project impacts on nesting birds are less than significant:

MM BIO-2 Protection of Active Bird Nests (includes pre-construction survey and implementation of avoidance buffer, if found).

1. Removal of trees shall be limited to only those necessary to construct the proposed project as reflected in the relevant project approval documents. It is recommended that a Biologist make sure the bird houses are not occupied and then block access to the bird houses for the duration of construction to avoid attracting nesting birds.
2. If construction occurs during the nesting season (February 1 to August 31), pre-construction surveys shall be conducted within 14 days prior to tree removal to determine whether or not active nests are present.
3. If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s).
4. The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged.

6.2 - Compliance with Western Riverside County Multiple Species Habitat Conservation Plan

The project site is located within the boundaries of Western Riverside County MSHCP. According to the RCA MSHCP Information Map. The project site lies within a MSHCP survey area for burrowing owl and narrow endemic plants including San Diego ambrosia, Brand's phacelia, and San Miguel savory.[33] Therefore, the proposed project shall follow the procedures outlined *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. [34] Step I of these procedures requires a habitat assessment that can be satisfied by the same due diligence field survey that this report summarizes. Based on the findings of this report, it is recommended that pre-construction surveys be conducted prior to any ground disturbance to avoid direct take of burrowing owls, as described in MM BIO-1.

Due to the disturbed/developed state of the project site, none of the plant species listed above are likely to occur on-site and focused surveys for these species are not recommended. The project applicant shall prepare a separate MSHCP Consistency Analysis report to summarize and analyze any MSHCP requirements and biological constraints that apply to potential development within the

[33] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

[34] Western Riverside County Regional Conservation Authority (RCA). 2005. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. November 7.

proposed project area and to document the project's consistency with the goals, objectives, and requirements of the MSHCP. With the implementation of these measures the proposed project would be in compliance with the provisions of the MSHCP.

MM BIO-3 Western Riverside County MSHCP Compliance

Prior to the issuance of a grading permit, the project applicant shall prepare and submit a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report to City of Eastvale to document the project's consistency with the goals, objectives, and requirements of the MSHCP.

Appendix A:
Site Photographs

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Photograph 1: Project site facing north from southern boundary (Orange Street).

Photograph 2: Southeastern corner of the project site facing northwest.

Photograph 3: Project site facing west from eastern boundary.

Photograph 4: Northeastern corner of the project site facing southwest.

Photograph 5: Project site facing south from northern boundary.

Photograph 6: Northwestern corner of the project site facing southeast.

Photograph 7: Project site facing east from western boundary.

Photograph 8: Southwestern corner of the project site facing northeast.

Photograph 9: Open-side shed facing north.

Photograph 10: Side yard and patio facing northwest.

Photograph 11: Rear lot facing south.

Photograph 12: Small burrows observed throughout the site. 5-inch notecard for size comparison.

Photograph 13: Birdhouse located on front porch.

Photograph 14: Birdhouse located in the side yard.

Photograph 15: Birdhouse located near front gate.

Photograph 16: Remnant bird nest inside barn.

Appendix B:
Special-status Species Tables

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Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale
	USFWS[1]	CDFW[2]	CNPS[3]		
Abronia villosa var. *aurita* chaparral sand-verbena	—	—	1B.1	Chaparral, coastal scrub, desert dunes. Areas with sandy soils. Elevation: -60-1570 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Calystegia felix lucky morning-glory	—	—	1B.1	Meadows and seeps, riparian scrub. Sometimes occurs where alkaline and alluvial soils are present. Elevation: 9 – 205 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Centromadia pungens ssp. laevis smooth tarplant	—	—	1B.1	Occurs in valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadows, alkali scrub. May also occur in disturbed places. Elevation: 0 – 640 m. Bloom period: April – September	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Dudleya multicaulis many-stemmed dudleya	—	—	1B.2	Chaparral, coastal scrub, valley and foothill grassland. Grows in heavy, often clayey soils or grassy slopes. Elevation: 1 – 910 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	FE	SE	1B.1	Can be found in chaparral and coastal scrub habitat. Prefers sandy soils on river floodplains or terraced fluvial deposits at elevations between Elevation: 180 – 700 m. Bloom period: May – September	**None.** The project site does not contain suitable floodplain/fluvial deposits to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Monardella australis ssp. *jokerstii* Jokerst's monardella	—	—	1B.1	Occurs in lower montane coniferous forest, chapparal. Often found growing on steep scree or talus slopes between breccia. May also occur on alluvial benches along drainages and washes. Elevation: 210 – 1740 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale
	USFWS[1]	CDFW[2]	CNPS[3]		
Sidalcea neomexicana salt spring checkerbloom	—	—	2B.2	Found in playas, chaparral, coastal scrub, lower montane coniferous forest, Mojave desert scrub, alkali springs and marshes. Elevation: 0 – 1,530 m. Bloom period: March – June	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Symphyotrichum defoliatum San Bernardino aster	—	—	1B.2	Found in meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland. Prefers vernally mesic grassland or near ditches, streams, and springs; especially disturbed areas. Elevation: 2 – 2,040 m. Bloom period: July – November	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.

Code Designations

[1] Federal Status: 2020 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under the FESA.
- **FT** = Listed as threatened under the FESA.
- **FC** = Candidate for listing (threatened or endangered) under FESA.
- **FD** = Delisted in accordance with the FESA.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2020 CDFW Listing

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

[3] CNPS: 2020 CNPS Listing

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

Blooming period: Months in parentheses are uncommon.

[4] **Habitat Description**: Habitat description adapted from CNDDB[1] and CNPS online inventory[2] or other specified source.

[1] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed October 22, 2020.

[2] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed May 12, 2021.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Birds				
Agelaius tricolor tricolored blackbird	— MBTA	ST SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Breeds in large freshwater marshes, dense stands of hydrophytic vegetation (cattails, bulrushes, etc.)	**None.** The project parcel does contain suitable foraging habitat nor suitable freshwater marsh to support this species.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	— MBTA	— WL	Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**None.** The project site does not contain suitable vegetation communities or rocky hillsides to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Aquila chrysaetos golden eagle	— MBTA	— FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**None.** The project site does not contain suitable nesting habitat or prey base to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Athene cunicularia burrowing owl	— MBTA	— SSC CFG	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Low.** The project parcel does contain ruderal habitat suitable for foraging. However, no burrows suitable for nesting were observed. Multiple occurrences recorded are located within 5 miles surrounding the project parcel.
Buteo swainsoni Swainson's hawk	— MBTA	ST SSC CFG	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**None.** The project site does not contain suitable nesting habitat or prey base to support this species. Previous anthropogenic disturbances further preclude this species from occurring. Species is believed to be locally extirpated.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT MBTA	SE	Found in riparian forest along the broad lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods; understory consists of blackberry, nettles, and wild grape.	**None.** The project parcel does contain suitable riparian habitat to support this species.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Coturnicops noveboracensis yellow rail	— MBTA	— SSC	Grassy marshes, meadows. In summer, favors large wet meadows or shallow marshes dominated by sedges and grasses. Typically in fresh or brackish marsh with water no more than a foot deep. In winter mostly in coastal salt marsh, especially drier areas with dense stands of spartina; also rice fields, damp meadows near coast.	**None.** The project parcel does not contain suitable freshwater marsh habitat to support this species.
Elanus leucurus white-tailed kite	— MBTA	— FP	Often found near foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland or isolated dense-topped trees for nesting and perching. Forages in open grasslands, meadows, or marshes.	**Low.** The project parcel does contain ruderal habitat which may be suitable for foraging. However, the project site lacks suitable nesting habitat. Nearest recorded BIOS occurrences are located approximately 4.7 miles southwest of the project parcel near Prado Regional Park.
Empidonax traillii extimus southwestern willow flycatcher	FE MBTA	SE	Riparian woodlands in Southern California.	**None.** The project parcel does contain suitable riparian habitat to support this species.
Icteria virens yellow-breasted chat	— MBTA	— SSC	Summer resident of Southern California. Inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.
Laterallus jamaicensis coturniculus California black rail	— MBTA	ST FP	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Requires water depth of about 1 inch that does not fluctuate during the year, and dense vegetation for nesting.	**None.** The project parcel does not contain suitable freshwater marsh habitat to support this species.
Polioptila californica californica coastal California gnatcatcher	FT MBTA	— SSC	An obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California. May also be found in arid washes, on mesas, and slopes.	**None.** The project parcel does not contain suitable sage scrub vegetation to support this species.
Setophaga petechia yellow warbler	— MBTA	— SSC	Occurs riparian habitats in close proximity to water. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. May also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]
Vireo bellii pusillus least Bell's vireo	FE MBTA	SE	A summer resident of Southern California. Nests in low riparian habitat in the vicinity of water or in dry river bottoms. Nests placed along margins of bushes or in twigs projecting into pathways, usually willows, coyote bush, mule fat, or mesquite. Occurs below 2,000 feet.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.
Fish				
Catostomus santaanae Santa Ana sucker	FT	—	Endemic to Los Angeles basin south coastal streams. Are habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**None.** There are no streams or rivers present within the project to support this species. Nearest occurrence is approximately a mile south of the project site within the Santa Ana River.
Gila orcuttii arroyo chub	—	— SSC	Native to the streams and rivers of the Los Angeles plain in Southern California. Arroyo chub are adapted to survive in streams that fluctuate between large winter storm flows, and low summer flows, and the low dissolved oxygen and wide temperature fluctuations. Feeds on plants such as algae and water fern, as well as insects and mollusks.	**None.** There are no streams or rivers present within the project site to support this species. Nearest occurrence is approximately a mile south of the project site within the Santa Ana River.
Oncorhynchus mykiss irideus (pop. 10) steelhead (southern California DPS)	FE	—	Habitat needs vary depending on the time in the life cycle. In the freshwater phase, freely flowing, cool, clean, highly oxygenated water is essential. In Southern California there is a winter run occurring January through March. Eggs are hatched in streams with gravel bottoms. Juvenile fish prefer pools with protective debris and a variety of hiding areas. Juveniles ultimately make their way to estuarine waters and to the ocean where they reach maturity.	**None.** There are no streams or rivers present within the project site to support this species. Nearest occurrence is a mile south of the project site within the Santa Ana River. This species is believed to be largely extirpated from Santa Ana watershed.
Insects				
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	FE	—	Found only in small parts of San Bernardino and Riverside counties, in areas of fine sandy soil, known as Delhi series sands. While formerly widespread, this habitat has been intensively developed in the past century, primarily for agriculture, though more recently for industry and housing. Only an estimated 2-3 percent of the original habitat remains undeveloped.	**None.** No suitable habitat is present within the project site due to lack of Delhi series soils and its associated vegetation communities. Nearest known population is located in the Jurupa Hills, approximately 6 miles northeast of the project site.
Mammals				
Dipodomys stephensi *Stephens' kangaroo rat*	FE	ST	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**None.** The project site does not contain suitable vegetation communities to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Eumops perotis californicus *western mastiff bat*	—	— SSC	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**None.** The project site does not contain suitable roosting habitat in the form of cliffs, high buildings, dense trees or tunnels.
Lasiurus xanthinus *western yellow bat*	—	— SSC	Prefers open habitats or habitat mosaics, with access to trees for cover, and open areas or habitat edges for feeding. Roosts in dense foliage of medium-to-large trees. Feeds primarily on moths. Requires a water source nearby.	**None.** The project site does not contain suitable roosting habitat due to the lack of trees with dense foliage.
Nyctinomops femorosaccus *pocketed free-tailed bat*	—	— SSC	Found in a variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, or desert riparian habitat. Prefers rocky areas with high cliffs.	**None.** The project site does not contain suitable roosting habitat in the form of cliffs and other rocky areas.
Reptiles				
Anniella stebbinsi Southern California legless lizard	—	— SSC	Found in a variety of habitats. Generally found in areas of sparse vegetation where sandy or loose loamy soils with a high moisture content are present. The range of this species extends generally south of the Transverse Range, extending to northwestern Baja California. Disjunct populations in the Tehachapi and Piute Mountains in Kern County also exist.	**None.** The project parcel does not contain suitable soils or vegetation communities to support this species. Moisture is essential for this species. The project parcel is highly arid, and no typical habitat is present.
Arizona elegans occidentalis California glossy snake	—	— SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral preferably open areas with loose soil for easy burrowing.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Aspidoscelis hyperythra orange-throated whiptail	—	— WL	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its primary food: termites.	**None.** The project site does not contain suitable vegetation communities and termite colonies to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Coleonyx variegatus abbotti San Diego banded gecko	—	— SSC	Prefers rocky areas in coastal sage and chaparral.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Crotalus ruber red-diamond rattlesnake	—	— SSC	Found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas with dense vegetation. Requires rodent burrows, cracks in rocks, or surface cover objects. Often found in disturbed areas.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]
Emys marmorata western pond turtle	—	— SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**None.** The project parcel does not contain suitable aquatic habitat to support this species.

Code Designations

[1] Federal Status: 2020 USFWS Listing		[2] State Status: 2020 CDFW Listing	
ESU	= Evolutionary Significant Unit is a distinctive population.	**SE**	= Listed as endangered under the CESA.
FE	= Listed as endangered under the FESA.	**ST**	= Listed as threatened under the CESA.
FT	= Listed as threatened under the FESA.	**SSC**	= Species of Special Concern as identified by the CDFW.
FC	= Candidate for listing (threatened or endangered) under FESA.	**FP**	= Listed as fully protected under FGC.
FD	= Delisted in accordance with the FESA.	**CFG**	= FGC =protected by FGC 3503.5
FPD	= Federally Proposed to be Delisted.	**CE**	= Candidate endangered under the CESA.
MBTA	= protected by the Migratory Bird Treaty Act	**—**	= Not state listed
—	= Not federally listed		

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

[3] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed May 12, 2021.
[4] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed May 12, 2021.

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Appendix C:
Database Searches

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Ontario (3411716) OR Guasti (3411715) OR Fontana (3411714) OR Prado Dam (3311786) OR Corona North (3311785) OR Riverside West (3311784) OR Black Star Canyon (3311776) OR Corona South (3311775) OR Lake Mathews (3311774))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium marvinii Yucaipa onion	PMLIL02330	None	None	G1	S1	1B.2
Allium munzii Munz's onion	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Ambrosia pumila San Diego ambrosia	PDAST0C0M0	Endangered	None	G1	S1	1B.1
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Baccharis malibuensis Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
Berberis nevinii Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Calystegia felix lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Carolella busckana Busck's gallmoth	IILEM2X090	None	None	G1G3	SH	
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Ceratochrysis longimala Desert cuckoo wasp	IIHYM71040	None	None	G1	S1	
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	None	Endangered	G2T1	S1	1B.1
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Cicindela tranquebarica viridissima greenest tiger beetle	IICOL02201	None	None	G5T1	S1	
Cladium californicum California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T3T4	S1S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Diplectrona californica California diplectronan caddisfly	IITRI23010	None	None	G1G2	S1S2	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	Candidate Endangered	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Hesperocyparis forbesii Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lepechinia cardiophylla heart-leaved pitcher sage	PDLAM0V020	None	None	G3	S2S3	1B.2
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
Lycium parishii Parish's desert-thorn	PDSOL0G0D0	None	None	G4	S1	2B.3
Malacothamnus parishii Parish's bush-mallow	PDMAL0Q0C0	None	None	GXQ	SX	1A
Monardella australis ssp. jokerstii Jokerst's monardella	PDLAM18112	None	None	G4T1?	S1?	1B.1
Monardella hypoleuca ssp. intermedia intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Monardella pringlei Pringle's monardella	PDLAM180J0	None	None	GX	SX	1A
Muhlenbergia californica California muhly	PMPOA480A0	None	None	G4	S4	4.3
Muhlenbergia utilis aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Neolarra alba white cuckoo bee	IIHYM81010	None	None	GH	SH	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Penstemon californicus California beardtongue	PDSCR1L110	None	None	G3	S2	1B.2
Pentachaeta aurea ssp. allenii Allen's pentachaeta	PDAST6X021	None	None	G4T1	S1	1B.1
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Phacelia keckii Santiago Peak phacelia	PDHYD0C4G1	None	None	G1	S1	1B.3
Phacelia stellaris Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	IIDIP05021	Endangered	None	G1T1	S1	
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern California Arroyo Chub/Santa Ana Sucker Stream	CARE2330CA	None	None	GNR	SNR	
Southern California Arroyo Chub/Santa Ana Sucker Stream						
Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Coast Live Oak Riparian Forest						
Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Cottonwood Willow Riparian Forest						
Southern Interior Cypress Forest	CTT83230CA	None	None	G2	S2.1	
Southern Interior Cypress Forest						
Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Forest						
Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Riparian Scrub						
Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Sycamore Alder Riparian Woodland						
Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Southern Willow Scrub						
Spea hammondii	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
Sphenopholis obtusata	PMPOA5T030	None	None	G5	S2	2B.2
prairie wedge grass						
Spinus lawrencei	ABPBY06100	None	None	G3G4	S3S4	
Lawrence's goldfinch						
Symphyotrichum defoliatum	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino aster						
Taricha torosa	AAAAF02032	None	None	G4	S4	SSC
Coast Range newt						
Thamnophis hammondii	ARADB36160	None	None	G4	S3S4	SSC
two-striped gartersnake						
Thysanocarpus rigidus	PDBRA2Q070	None	None	G1G2	S1	1B.2
rigid fringepod						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						

Record Count: 118

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Inventory of Rare and Endangered Plants

Plant List

55 matches found. *Click on scientific name for details*

Search Criteria
Found in Quads 3411716, 3411715, 3411714, 3311786, 3311785, 3311784, 3311776 3311775 and 3311774;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Habitats	Lowest Elevation	Highest Elevation	Blooming Period
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb			1B.1	• Chaparral • Coastal scrub • Desert dunes	75 m	1600 m	(Jan)Mar-Sep
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	FE	CT	1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Pinyon and juniper woodland • Valley and foothill grassland	297 m	1070 m	Mar-May
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	FE		1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	20 m	415 m	Apr-Oct
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	FE		1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland	4 m	640 m	Jan-Aug
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb			1B.2	• Coastal bluff scrub • Coastal dunes • Coastal scrub	3 m	460 m	Mar-Oct

							• Valley and foothill grassland			
Baccharis malibuensis	Malibu baccharis	Asteraceae	perennial deciduous shrub			1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	150 m	305 m	Aug
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	FE	CE	1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Riparian scrub	70 m	825 m	(Feb)Mar-Jun
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb			4.2	• Chaparral • Coastal scrub	10 m	1220 m	(Jan)Mar-Jun
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	15 m	700 m	(Feb)Mar-Jun
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	100 m	1700 m	May-Jul
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb			1B.2	• Chaparral • Coastal scrub • Valley and foothill grassland	105 m	855 m	May-Jul
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb			1B.1	• Meadows and seeps (sometimes alkaline) • Riparian scrub (alluvial)	30 m	215 m	Mar-Sep
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb			3	• Coastal bluff scrub • Cismontane woodland • Coastal dunes • Coastal scrub	0 m	300 m	Mar-May(Jun)

							• Valley and foothill grassland			
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb			4.2	• Chaparral • Coastal scrub	90 m	2200 m	(Feb)Mar-May(Jun)
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb			1B.1	• Chenopod scrub • Meadows and seeps • Playas • Riparian woodland • Valley and foothill grassland	0 m	640 m	Apr-Sep
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb			4.2	• Chaparral • Coastal scrub • Lower montane coniferous forest	300 m	1900 m	May-Aug
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	FC	CE	1B.1	• Coastal scrub (sandy) • Valley and foothill grassland	150 m	1220 m	Apr-Jul
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb			1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	275 m	1220 m	Apr-Jun
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb			1B.2	• Chaparral • Coastal scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	30 m	1530 m	Apr-Jul
Chorizanthe xanti var. leucotheca	white-bracted spineflower	Polygonaceae	annual herb			1B.2	• Coastal scrub (alluvial fans) • Mojavean desert scrub • Pinyon and juniper woodland	300 m	1200 m	Apr-Jun
Cladium californicum	California sawgrass	Cyperaceae	perennial rhizomatous herb			2B.2	• Meadows and seeps • Marshes and swamps Alkaline or Freshwater	60 m	1600 m	Jun-Sep
Convolvulus simulans	small-flowered	Convolvulaceae	annual herb			4.2	• Chaparral (openings)	30 m	740 m	Mar-Jul

	morning-glory						• Coastal scrub • Valley and foothill grassland			
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb			4.2	• Coastal scrub • Valley and foothill grassland • Vernal pools	25 m	940 m	(Mar)Apr-Nov(Dec)
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	FE	CE	1B.1	• Chaparral • Cismontane woodland • Coastal scrub (alluvial fan)	200 m	760 m	Apr-Jun
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb			1B.2	• Chaparral • Coastal scrub • Valley and foothill grassland	15 m	790 m	Apr-Jul
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	FE	CE	1B.1	• Chaparral • Coastal scrub (alluvial fan)	91 m	610 m	Apr-Sep
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb			4.3	• Chaparral • Lower montane coniferous forest	1220 m	1830 m	Apr-Jun
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb			4.2	• Chaparral • Coastal scrub • Valley and foothill grassland	20 m	955 m	Mar-May
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree			1B.1	• Closed-cone coniferous forest • Chaparral	80 m	1500 m	
Hordeum intercedens	vernal barley	Poaceae	annual herb			3.2	• Coastal dunes • Coastal scrub • Valley and foothill grassland (saline flats and depressions) • Vernal pools	5 m	1000 m	Mar-Jun
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb			1B.1	• Chaparral (maritime) • Cismontane woodland • Coastal scrub	70 m	810 m	Feb-Jul(Sep)
Juglans californica	Southern	Juglandaceae	perennial			4.2	• Chaparral	50 m	900 m	Mar-Aug

	California black walnut		deciduous tree		• Cismontane woodland • Coastal scrub • Riparian woodland			
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	1B.1	• Marshes and swamps (coastal salt) • Playas • Vernal pools	1 m	1220 m	Feb-Jun
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	1B.2	• Closed-cone coniferous forest • Chaparral • Cismontane woodland	520 m	1370 m	Apr-Jul
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	4.3	• Chaparral • Coastal scrub	1 m	885 m	Jan-Jul
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	4.2	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Riparian woodland	30 m	1800 m	Mar-Jul(Aug)
Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	4.2	• Cismontane woodland • Coastal scrub • Valley and foothill grassland • Vernal pools	15 m	1070 m	Mar-May
Monardella australis ssp. jokerstii	Jokerst's monardella	Lamiaceae	perennial rhizomatous herb	1B.1	• Chaparral • Lower montane coniferous forest	1350 m	1750 m	Jul-Sep
Monardella hypoleuca ssp. intermedia	intermediate monardella	Lamiaceae	perennial rhizomatous herb	1B.3	• Chaparral • Cismontane woodland • Lower montane coniferous forest (sometimes)	400 m	1250 m	Apr-Sep
Monardella pringlei	Pringle's monardella	Lamiaceae	annual herb	1A	• Coastal scrub (sandy)	300 m	400 m	May-Jun
Muhlenbergia californica	California muhly	Poaceae	perennial rhizomatous	4.3	• Chaparral • Coastal	100 m	2000 m	Jun-Sep

			herb		scrub • Lower montane coniferous forest • Meadows and seeps			
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	1B.1	• Coastal scrub • Meadows and seeps • Valley and foothill grassland (alkaline) • Vernal pools	3 m	1210 m	Apr-Jul
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	1B.2	• Chaparral • Coastal scrub	140 m	1275 m	(Mar)May-Jul
Penstemon californicus	California beardtongue	Plantaginaceae	perennial herb	1B.2	• Chaparral • Lower montane coniferous forest • Pinyon and juniper woodland	1170 m	2300 m	May-Jun(Aug)
Pentachaeta aurea ssp. allenii	Allen's pentachaeta	Asteraceae	annual herb	1B.1	• Coastal scrub (openings) • Valley and foothill grassland	75 m	520 m	Mar-Jun
Phacelia keckii	Santiago Peak phacelia	Hydrophyllaceae	annual herb	1B.3	• Closed-cone coniferous forest • Chaparral	545 m	1600 m	May-Jun
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	1B.1	• Coastal dunes • Coastal scrub	1 m	400 m	Mar-Jun
Pickeringia montana var. tomentosa	woolly chaparral-pea	Fabaceae	evergreen shrub	4.3	• Chaparral	0 m	1700 m	May-Aug
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	4.3	• Chaparral • Cismontane woodland • Riparian woodland	100 m	1000 m	May-Aug
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	2B.2	• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	0 m	2100 m	(Jul)Aug-Nov(Dec)
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	4.2	• Chaparral • Coastal scrub	20 m	1200 m	Mar-Jul(Aug)
	chaparral	Asteraceae	annual herb	2B.2	• Chaparral	15 m	800 m	Jan-

Senecio aphanactis	ragwort				• Cismontane woodland • Coastal scrub			Apr(May)
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	2B.2	• Chaparral • Coastal scrub • Lower montane coniferous forest • Mojavean desert scrub • Playas	15 m	1530 m	Mar-Jun
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	2B.2	• Cismontane woodland • Meadows and seeps	300 m	2000 m	Apr-Jul
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	1B.2	• Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Marshes and swamps • Valley and foothill grassland (vernally mesic)	2 m	2040 m	Jul-Nov(Dec)

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IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Riverside County, California

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Stephens' Kangaroo Rat Dipodomys stephensi (incl. D. cascus) Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3495

Birds

NAME	STATUS

Coastal California Gnatcatcher Polioptila californica californica Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8178

Least Bell's Vireo Vireo bellii pusillus Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5945

Southwestern Willow Flycatcher Empidonax traillii extimus Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6749

Fishes

NAME	STATUS

Santa Ana Sucker Catostomus santaanae Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/3785

Insects

NAME	STATUS

Delhi Sands Flower-loving Fly Rhaphiomidas terminatus abdominalis Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1540

Flowering Plants

NAME	STATUS

San Diego Ambrosia Ambrosia pumila — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8287

Santa Ana River Woolly-star Eriastrum densifolium ssp. sanctorum — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6575

Thread-leaved Brodiaea Brodiaea filifolia — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6087

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php

- Nationwide conservation measures for birds
  http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

Burrowing Owl Athene cunicularia — Breeds Mar 15 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9737

Clark's Grebe Aechmophorus clarkii — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-billed Curlew Numenius americanus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5511

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Whimbrel Numenius phaeopus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.