



NATURAL RESOURCES ASSESSMENT, INC.

**General Biological Assessment
The Shops at Jurupa
Jurupa Valley, California**

Prepared for:

**Panorama Development, LLC
2005 Winston Court
Upland, CA 91784**

Prepared by:

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June 30, 2020

Project Number: PPI20-101

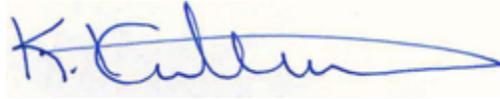
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CERTIFICATION

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

A handwritten signature in blue ink, appearing to read "K. Kirtland", is centered on the page. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Karen Kirtland

NATURAL RESOURCES ASSESSMENT, INC.

June 30, 2020

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Appendix A – List of Plants and Wildlife Species Observed

1.0 Introduction

Natural Resources Assessment, Inc. (NRAI) was contracted by Panorama Development, LLC. to provide biological services for a proposed commercial center in Jurupa Valley, California. The assessment was completed consistent with the requirements of the Western Riverside County Multiple Species Habitat Conservation Plan (MSCHP).

2.0 Site Location and Project Description

The property is located in Jurupa Valley, Riverside County, California (Figures 1 and 2). It consists of two parcels (APNs 171-020-001 and 171-020-025) totaling 32 acres south of State Route 60 on the northeast corner of Pyrite Street and Mission Boulevard. Existing development is along the western and southern borders. State Route 60 forms the northern border and open space is on the east (Figure 3).

At the time of the survey, portions of the site were being used by homeless people, with established homemade shelters and storage areas. In addition, the site shows signs of having been used for grazing, with animals temporarily housed in small circular pens. Based on the evidence of debris, the site may have been farmed in the past, but that could not be positively established.

The parcel is located in Section 12, Township 2 south, Range 6 west on the Fontana USGS 7.5-minute quadrangle, San Bernardino Base and Meridian (Figure 2).

The Applicant is requesting the approval of a commercial development that will provide hotel, retail and gas station amenities.

Review of historic aerial photographs indicated that the property has been a vacant lot since at least 1994 (Google Earth, accessed June 19, 2020).

3.0 Methods

3.1 Data Review

NRAI conducted a data search for information on plant and wildlife species known occurrences within the vicinity of the project. This review included biological texts on general and specific biological resources, and those resources considered to be sensitive by various wildlife agencies, local governmental agencies and interest groups. Information sources included but are not limited to the following:

- Information provided by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) for the project site, Assessor's Parcel Number (APN) 419-150-034.
- U.S. Army Corps 404 requirements, State Water Resources Control Board requirements and California Department of Fish and Wildlife 1602 requirements.
- General texts and other documents regarding potential resources on the project

NRAI used the information to focus our survey efforts in the field. Please see Section 6.0 for a complete listing of documents reviewed.

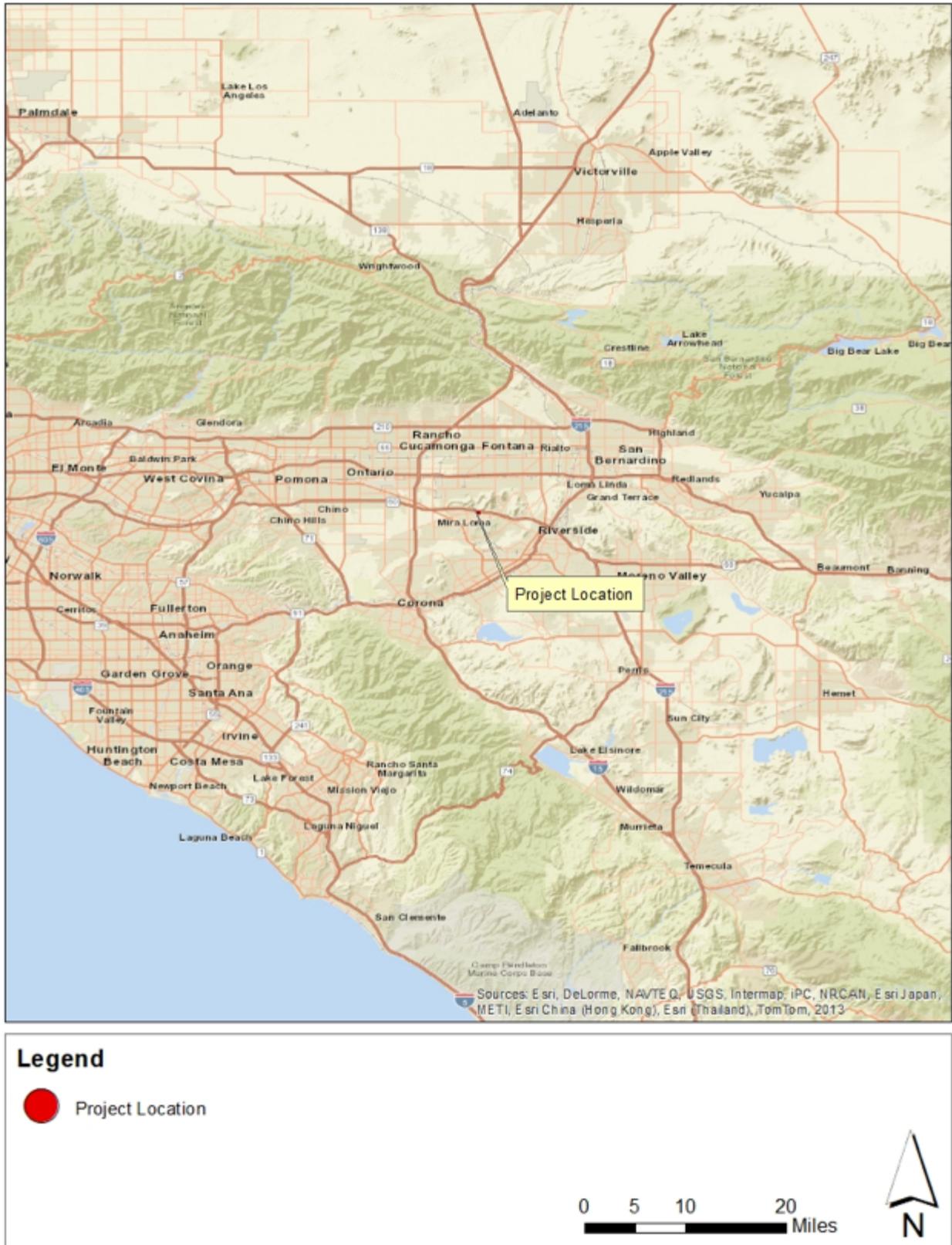


Figure 1. Regional Location of the Project Site.

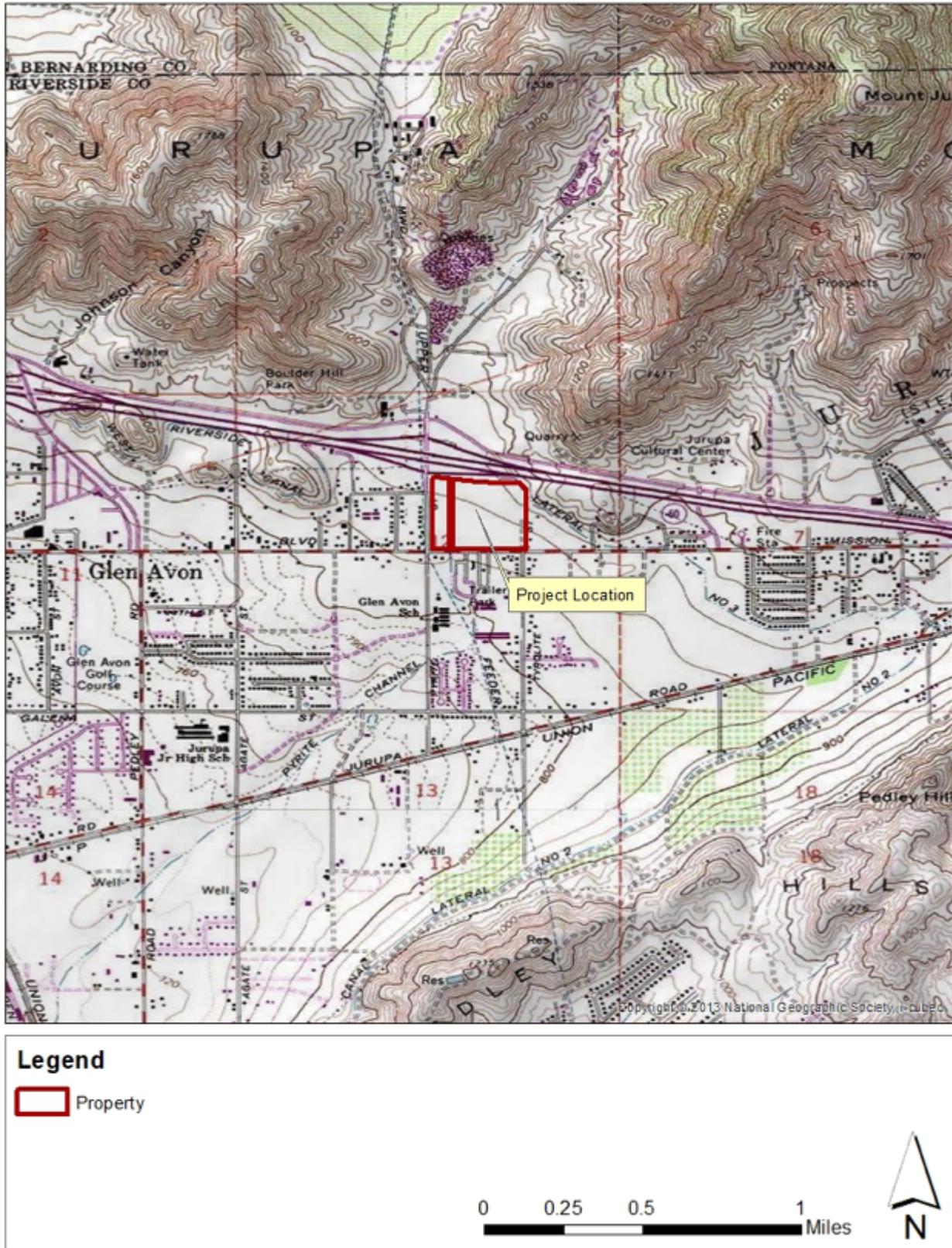


Figure 2. Topography of the Project Site. Date Unknown.



Figure 3. Aerial Showing the Condition of the Property. 2020.

3.2 Field Assessment

Ms. Karen Kirtland of NRAI and Mr. Ricardo Montijo conducted a biological assessment of the development area on June 5, 2020. The field team evaluated the property habitats, making notes on the general and sensitive biological resources present and taking representative photographs. The survey included habitat assessment surveys for resources covered under the MSHCP survey requirements.

The field team also conducted a burrowing owl (*Athene cunicularia*) burrow survey according to County protocols. A systematic focused survey for burrows including burrowing owl sign was conducted on June 16, 2020, by walking through suitable habitat over the entire survey area. The survey included a visual survey using high-powered binoculars out to 150 meters of adjacent properties segments with restricted or denied access.

4.0 Results

4.1 Weather, Topography and Soils

Weather at the beginning of the general biological assessment field survey was 82 degrees Fahrenheit, with partly cloudy skies (stratus) and north-northeast winds at 1.9 miles per hour. By the end of the survey, the temperature was 84 degrees Fahrenheit, with partly cloudy skies (stratus) and winds of one to two miles per hour.

Weather at the beginning of the burrowing owl burrow survey was 63 degrees Fahrenheit, with overcast skies (stratus) and west-northwest winds of two miles per hour. By the end of the survey, the temperature was 68 degrees Fahrenheit, with overcast skies (stratus) and west-southwest winds of three miles per hour.

The property has a flat topography (Figures 2 and 3).

Five soils are found within the property boundaries (Figure 5, Natural Resources Conservation Service 2020).

Hanford loamy fine sand (HaC) is found on zero to eight percent slopes. This soil is developed from alluvium derived from granite and is found on alluvial fans. It is a well-drained non-hydric loamy fine sand that that does not flood or pond.

Hanford coarse sandy loam (HcC) is found on two to eight percent slopes. This soil is developed from alluvium derived from granite and is found on alluvial fans. It is a well-drained non-hydric coarse sandy loam that that does not flood or pond.

Madera fine sandy loam (MbC2) is found on two to eight percent slopes. It is an eroded soil with a shallow A horizon. Madera fine sandy loam is developed from alluvium derived from granite and is found on alluvial fans. It is a moderately well-drained hydric soil that does not flood or pond. Madera fine sandy loam is nonsaline to very slightly saline.

Ramona sandy loam (RaB2) is found on two to five percent slopes. It is an eroded sandy loam developed from alluvium derived from granite that occurs on alluvial fans and terraces. Ramona sandy loam is a non-hydric well-drained soil that does not flood or pond.

Ramona sandy loam (RaB3) is found on zero to five percent slopes. It is a severely eroded sandy loam formed from alluvium derived from granite that occurs on alluvial fans and terraces. Ramona sandy loam is a non-hydric well-drained soil that does not flood or pond.

All project soils have been impacted by disking for weeding and are mass compacted.

4.2 Land Uses

A review of aerial imagery from Google Earth indicates that the property has been a vacant lot since at least 1994. Current disturbances include homeless encampments, foot traffic, off-road driving, and minor trash dumping. The disturbances have continued up to the time of our survey.

4.3 Vegetation

The MSHCP mapped the property as grassland in 1994. In 2005 and 2012, the MSCHP mapped the property as disturbed/developed.

In our mapping of the property, the surface cover is composed of barren areas and ruderal (weedy) plant community (Figure 5).

4.3.1 Barren

This condition is represented by mostly bare ground, dirt roads and pads (Photo 1).

4.3.2 Ruderal Vegetation

The ruderal plant community found on the property is comprised of a mix of mostly non-native weeds such as slender wild oats (*Avena barbata*), foxtail brome (*Bromus madritensis* ssp. *rubens*), Russian thistle (*Salsola tragus*), short-pod mustard (*Hirschfeldia incana*) and red-stemmed filaree (*Erodium cicutarium*)

Native weeds such as telegraph weed (*Heterotheca grandiflora*), fiddleneck (*Amsinckia menziesii*), Canada horseweed (*Erigeron canadensis*) and doveweed (*Croton setiger*) are scattered throughout the larger non-native ruderal stands.

The ruderal plant community is found throughout the property except on the roads and pads (Photos 1 through 4). A list of all plant species observed is provided in Appendix A.

4.3.3 Wildlife

No amphibian or reptile species were observed. No water sources are found on the property that would be used by amphibians, and the relative lack of ground cover, rocks or shrub makes the site unsuitable for most reptile species.

Bird species seen or hear included mourning dove (*Zenaidura macroura*), house finch (*Haemorhous mexicanus*) and lark sparrow (*Chondestes grammacus*).

Botta's gopher (*Thomomys bottae*) burrows were observed. No other sign of native mammal species was observed.

A list of all wildlife species observed is provided in Appendix A.

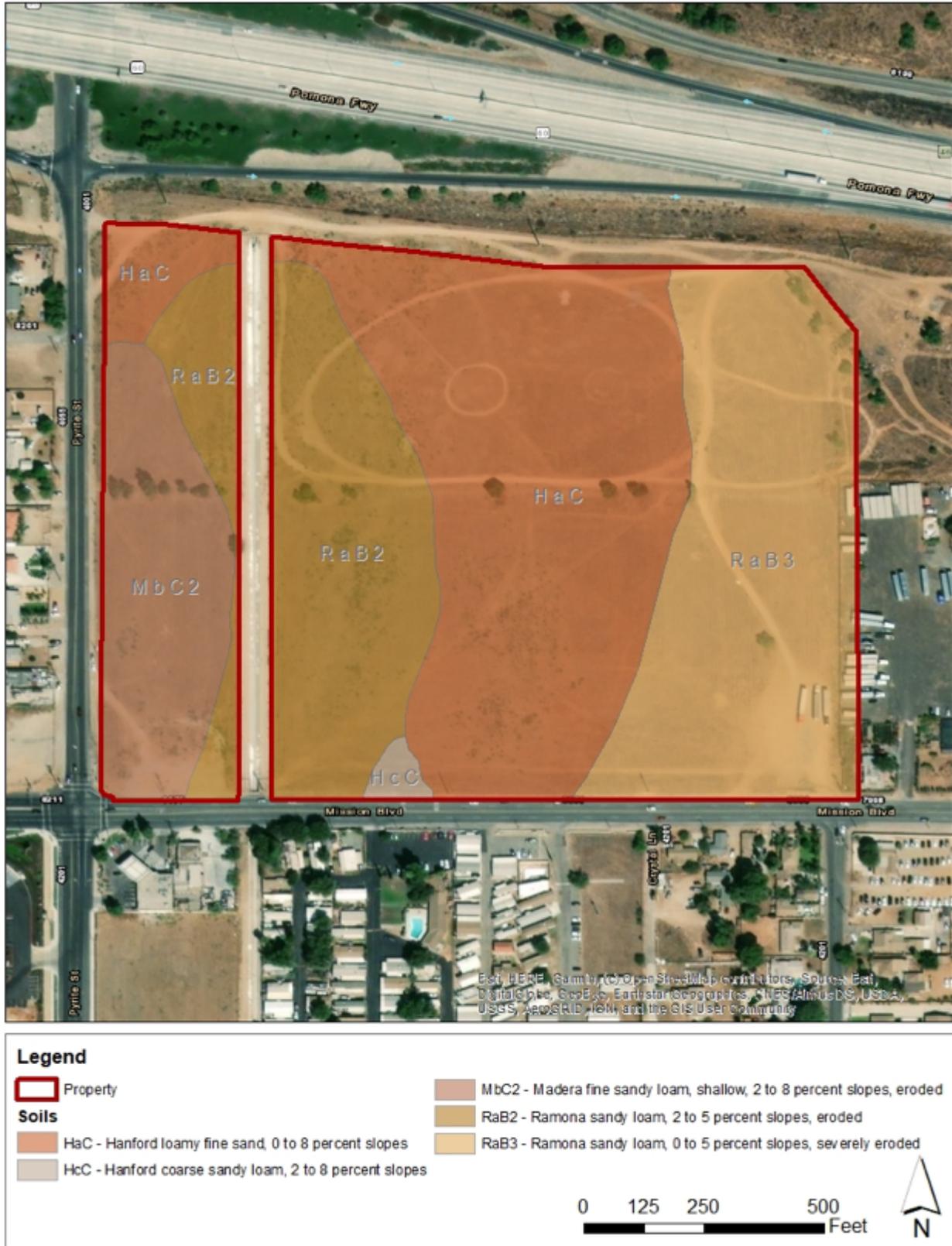


Figure 4. Soils.

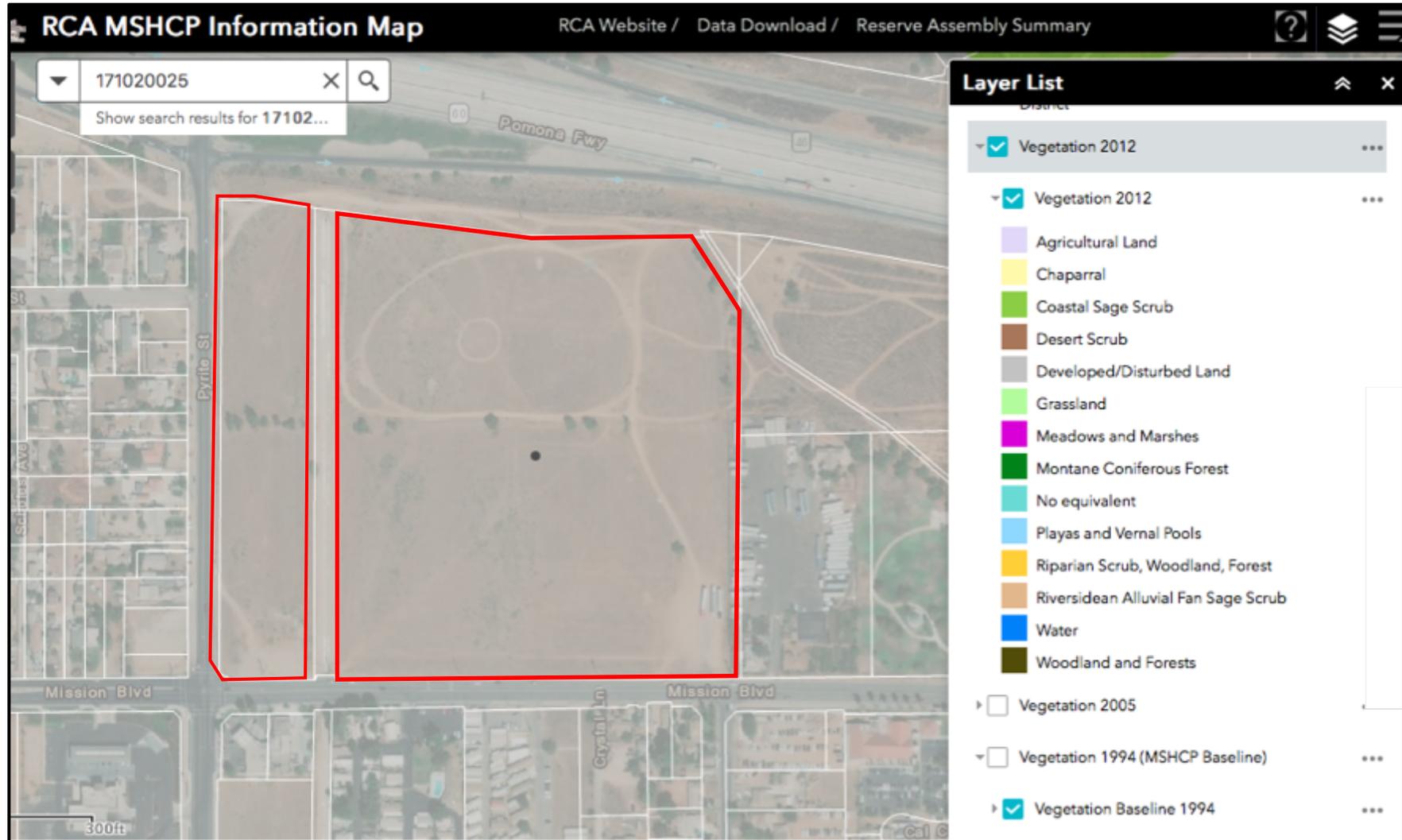


Figure 5. Vegetation Designation under the MSHCP 2012.



Photo 1. East-west road bisecting the property. Looking west.



Photo 2. Ruderal grassland on the site. Looking north towards the Jurupa Mountains.



Photo 3. Ruderal vegetation. Looking south-southwest from the center of the property. Note the density of cover.



Photo 4. Ruderal vegetation in the eastern half of the property.

4.4 MSHCP Consistency Analysis

Section 6 of the MSHCP states that all projects must be reviewed for compliance with plan policies pertaining to Riparian/Riverine resources, Criteria resources, Narrow Endemic Plant Species, urban/wildlands interface, and additional survey needs as applicable.

For this project, the MSHCP requires an assessment for burrowing owl, riverine and riparian habitats, as well as vernal pools and fairy shrimp habitat, and jurisdictional waters. In addition, the property is located in Criteria Cell 75, Cell Group E.

The following discussion includes status descriptions for each resource identified in the MSHCP.

4.5 Reserve Assembly Analysis

The MSHCP for Criteria Cell 75, Cell Group E is as follows:

Conservation within this Cell Group will contribute to assembly of Proposed Noncontiguous Habitat Block 2. Conservation within this Cell Group will focus on coastal sage scrub habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub habitat proposed for conservation in Cell Group F to the east. Conservation within this Cell Group will range from 5%-15% of the Cell Group focusing in the northeastern portion of the Cell Group.

The property does not support coastal sage scrub habitat, it is in the southeast corner of the Cell Group. This project does not have the preferred habitat and is outside the area of the Cell and the Cell Group wanted for inclusion into the MSHCP assemblage.

4.6 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

4.6.1 Riparian/Riverine Areas

Riparian/Riverine Areas are defined by the MSHCP as “lands which contain Habitat dominated by tress [sic], shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year”.

Findings

The property is flat, has no drainages and shows no evidence of any regular flow. There is no riparian habitat as defined in the MSHCP on site. No riverine/riparian habitat exists on the two parcels.

The Pyrite Channel is not part of the property ownership. We evaluated it to document its resources. It is a trapezoidal concrete channel with dirt shoulders and is fenced along its length and at both ends so that access is prohibited. There is no vegetation in the channel. The channel was dry at the time of the surveys.

The project is consistent with MSHCP Section 6.1.2.

4.6.2 Vernal Pools

Vernal pools are defined by the MSHCP as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of

the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. . . . Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records" (Riverside County Transportation and Land Management Agency).

Findings

The field team did not identify any indicators of vernal pool development such as muddy areas, depressions or similar areas where water would collect. Given the history of the property, the currently highly disturbed surface and the original sandy loam soils (unsuitable for pool formation), vernal pools are not present nor expected to occur in the future.

The project is consistent with MSHCP Section 6.1.2.

4.6.3 Riverside Fairy Shrimp

Riverside fairy shrimp (*Streptocephalus woottoni*) is known is found in Ventura, Los Angeles, Riverside, Orange, and San Diego Counties. It has also been found at two locations Valle de las Palmas and south of El Rosario in Baja California, Mexico. It occurs in ephemeral pools in farmlands and similar open, flat terrain. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer.

Constituent elements required for survival of the species per the U.S. Fish and Wildlife¹ "include small to large pools or pool complexes that have the appropriate temperature, water chemistry, and length of time of inundation with water necessary for Riverside fairy shrimp incubation and reproduction, as well as dry periods necessary to provide the conditions to maintain a dormant and viable cyst bank."

Specific conditions for successful reproduction of Riverside fairy shrimp include:

- Depths ranging from 10 in (25 cm) to 5 to 10 ft (1.5 to 3 m);
- Ponding inundation that lasts for a minimum length of 2 months and a maximum length of 5 to 8 months during the winter and spring months, followed by a dry period prior to the next winter and spring rains;
- Suitable water temperatures that fall within the range of 50- and 77-degrees Fahrenheit (10 and 25 degrees Celsius);
- Water chemistry with low total dissolved solids and alkalinity (means of 77 and 65 parts per million, respectively), corroborated by pH within a range of 6.4-7.1.

Also required are watersheds associated with suitable ponding sites that provide water to fill the pools in the winter and spring months. There is no set or standard size of watershed varies greatly and it must be evaluated on a case-by-case basis. Factors that affect the size of the watershed include surface and underground hydrology, the topography of the area surrounding the pool or pools, the vegetative coverage, and the soil substrate in the area. Watershed sizes designated vary from a few acres to greater than 100 ac (40 ha).

¹ <https://www.govinfo.gov/content/pkg/FR-2004-04-27/pdf/04-9203.pdf#page=2>

Regarding soil substrates, any soil type with a clay component and/or an impermeable surface or subsurface layer that is known to support vernal pool habitat may provide suitable habitat for Riverside fairy shrimp.

Findings

As described in the riverine/riparian section, the property does not provide conditions suitable for the formation of pools. The soils are unsuitable for the formation of long-term ponds that will last the minimum two months (the soil is composed of sandy loams).

No obligate wetland perennial plant species typical of suitable pools were observed. There are no upstream sources of water. There are no other sources of standing water, such as cattle ponds or watering holes, or evidence of such ponding such as soil color changes, debris collection or other features of ponding, that would provide suitable habitat for the Riverside fairy shrimp. No impacts to this species are expected.

The project is consistent with MSHCP Section 6.1.2.

4.6.4 Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is found in grasslands in ponded areas such as vernal pools, cattle watering holes, basins, etc. Fairy shrimp are confined to temporary pools that fill in spring and evaporate by late spring to early summer. In southern California, this species is found primarily in the interior of western Riverside County, central Santa Barbara County, and eastern Orange County and more recently in Los Angeles County.

Since most pools preferred by fairy shrimp are found in flat areas, many have been lost to agricultural activities and residential development. The limited extent of available habitat, plus the ongoing loss has resulted in the vernal pool fairy shrimp being listed as threatened by the USFWS.

Findings

As described in the vernal pool section, the property conditions are unsuitable for the formation of vernal pools. The soil is unsuitable for the formation of long-term ponds, and no obligate wetland perennial plant species typical of vernal pools were observed. No evidence of ponding was observed and there are no other sources of standing water, such as cattle ponds or watering holes that would provide suitable habitat for the vernal pool fairy shrimp.

The project is consistent with MSHCP Section 6.1.2.

4.6.5 Santa Rosa Plateau Fairy Shrimp

The Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*) is known only from cool-water vernal pools found only on southern basalt flows. Similar to the other shrimp species, the Santa Rosa Plateau fairy shrimp only occurs under the right conditions of water temperature, depth and evaporation patterns.

The Santa Rosa Plateau fairy shrimp is only found on the Santa Rosa Plateau in a very confined locality. The MSHCP has identified the need to set aside for a total of at least 2,134 acres of area on the basalt flow that may contain unmapped vernal pool habitat which might support Santa Rosa Plateau fairy shrimp.

Currently, the entire known population in Riverside County is currently protected as part of the Santa Rosa Plateau Regional Park.

Findings

In addition to no suitable vernal pool habitat being present on the property, the property lacks the underlying basaltic geological composition of rocks required for pond development.

Santa Rosa Plateau fairy shrimp is not present nor expected to be present on the property.

The project is consistent with MSHCP Section 6.1.2.

4.6.6 Riparian Birds

As stated under Section 5.1, there is no riverine/riparian habitat in or on the property. Therefore, no riverine/riparian bird species are present or will use the site, and no impacts to these species or their habitat will occur.

The project is consistent with MSHCP Section 6.1.2.

4.7 Narrow Endemic Plant Species (Section 6.1.3)

4.7.1 San Diego Ambrosia

San Diego ambrosia (*Ambrosia pumila*) is an annual herbaceous plant that grows from a rhizomatous root stock. It occurs in chaparral, coastal sage scrub, valley and foothill grassland, and occasionally in freshwater wetlands. San Diego ambrosia grows on sandy loam or clay soils. In valleys, it persists where disturbance is superficial.

San Diego ambrosia occurs from 30 to 182 meters (100 to 600 feet) in elevation throughout western Riverside and San Diego counties. It blooms from April through October.

San Diego ambrosia is listed as endangered by the USFWS and is on list 1b of the CNPS Inventory. It is not listed by the CDFW.

Findings

The field survey was conducted when the species was blooming and should have been observable. None were seen. We did not see any plants or suitable habitat conditions for the establishment of San Diego ambrosia, and it is not expected to be present.

The project is consistent with MSHCP Section 6.1.3.

4.7.2 San Miguel Savory

San Miguel savory (*Clinopodium* [formerly *Satureja*] *chandleri*) is a small herbaceous shrub found on rocky slopes in valley and foothill grasslands, coastal scrub, riparian woodland, chaparral, and oak woodland habitats. Recent data suggests it is confined to riparian habitats.

San Miguel savory may be restricted to soils derived from gabbroic or metavolcanic parent material. It blooms from May to July.

The known elevation range extends from 120 to 1075 meters (390 to 3600 feet). San Miguel savory occurs in suitable habitats in the coastal mountains of Orange, Riverside and San Diego. It is also known to occur in Baja California.

San Miguel savory is not listed by the USFWS or the CDFW. It is on list 1B.2 of the California Native Plant Society (CNPS) Inventory.

Findings

San Miguel savory is a perennial shrub and would have been observable at the time of the survey. No plants were observed.

The project is consistent with MSHCP Section 6.1.3

4.7.3 Brand's Phacelia

Brand's phacelia (*Phacelia stellaris*) is an annual herb that grows from seed. It occurs in open areas within coastal dunes and coastal sage scrub, usually on sandy soils. It is known primarily from coastal areas, extending from the coast into western Riverside and San Bernardino counties where suitable soils are found. Brandt's phacelia blooms from March to June at elevations ranging from sea level up to 400 meters (1200 feet) in elevation.

Brand's phacelia is a federal candidate for listing by the USFWS and is on list 1B.1 of the CNPS Inventory. It is not listed by the CDFW.

Findings

The field survey was conducted when the species was blooming and should have been observable. None were seen. The plant community on site is not one where species typically occurs. This species is not present on site.

The project is consistent with MSHCP Section 6.1.3.

4.8 Additional Survey Needs and Procedures (Section 6.3.2)

Habitat for burrowing owl was assessed over the entire property in accordance with MSHCP "Burrowing Owl Survey Instructions"². The Step I Habitat Assessment Survey included an assessment of habitat.

No burrowing owl burrows were observed, and no animals were observed during the survey. No other suitable locations, such as pipes, concrete structures or similar man-made features that could provide suitable burrow sites were found.

No burrows belonging to California ground squirrel were observed in the development area. The burrowing owl is not expected to nest onsite.

In the absence of suitable burrows, no Step II Locating Burrows and Burrowing Owls surveys were required.

The project is consistent with MSHCP Section 6.3.2.

² https://www.wrc-rca.org/species/survey_protocols/Birds/Burrowing%20Owl%20Survey%20Instructions%20complete.pdf

4.9 Guidelines Pertaining to the Urban/Wildland Interface (Section 6.1.4)

The Urban/Wildland Interface guidelines of the MSHCP address indirect effects associated with locating development in the MSHCP Conservation Area near wildlands or other open space areas.

The property is not near or in the vicinity of MSHCP Conservation Area. There will be no impacts to the Urban/Wildland Interface.

The project is consistent with MSHCP Section 6.1.4.

4.10 Habitat Conservation Plan for the Stephens Kangaroo Rat

The species objectives for the Stephens kangaroo rat (SKR) in the Western Riverside MSHCP were designed to incorporate the objectives and be consistent with the Long-Term Stephens Kangaroo Rat Habitat Conservation Plan (SKR Plan). Any projects that are within the MSHCP boundaries must meet the SKR Plan requirements.

Findings

The project is not located within the SKR fee area.

4.11 Jurisdictional Waters

4.11.1 Army Corps of Engineers

The Corps regulates discharges of dredged or fill material into waters of the United States. These watersheds include wetlands and non-wetland bodies of water that meet specific criteria. The lateral limit of Corps jurisdiction extends to the Ordinary High-Water Mark (OHWM) and to any wetland areas extending beyond the OHWM; thus, the maximum jurisdictional area is represented by the OHWM or wetland limit, whichever is greater.

Corps regulatory jurisdiction pursuant to Section 404 of the Clean Water Act is founded on a connection or nexus between the water body in question and interstate (waterway) commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations.

4.11.2 Regional Water Quality Control Board

The Corps has delegated the authority for use of 404 permits to each individual state. The use of a 404 permit in California is regulated by the State Water Resources Control Board (SWRCB) under Section 401 of the Clean Water Act regulations. The Board has authority to issue a 401 permit that allows the use of a 404 permit in the state, with the authority in the state being vested in regional offices known as Regional Water Quality Control Boards (RWQCB).

Under the Porter-Cologne Act of 2003, the SWRCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

In addition, the SWRCB has the responsibility to require that projects address ground water and water quality issues, which would be evaluated as part of the geotechnical and hydrology studies. Their authority extends to all waters of the State (of California).

4.11.3 California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW), through provisions of the State of California Administrative Code, is empowered to issue agreements for any alteration of a river, stream or lake where fish or wildlife resources may adversely be affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. Lateral limits of jurisdiction are not clearly defined, but generally include any riparian resources associated with a stream or lake, CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream or lake as defined by CDFW.

Findings

There are no jurisdictional waters on site. There is no wetland or riparian habitat on site. There are no drainages or evidence of water flow. Ruderal vegetation and bare ground are the only habitats present on the property.

The Pyrite Channel is owned separately from the two parcels. It is not a jurisdictional water. It is a concrete trapezoidal concrete channel. It is not a natural or apparently natural channel, nor has it replaced a natural channel. It does not support riparian or wetland habitat nor does it have a natural bed and bank.

However, all project waters will have to be designed to avoid material entering Pyrite Channel. Any fill or dredging, or any structural alteration that is proposed that will interrupt the natural functions of Pyrite Channel will require review by the jurisdictional agencies to determine if permits are required.

4.12 Raptors, Migratory Birds, and Habitat

Most of the raptor species (eagles, hawks, falcons and owls) are experiencing population declines because of habitat loss. Some, such as the peregrine falcon, have also experienced population losses because of environmental toxins affecting reproductive success, animals destroyed as pests or collected for falconry, and other direct impacts on individuals. Only a few species, such as the red-tailed hawk and barn owl, have expanded their range despite or a result of human modifications to the environment. As a group, raptors are of concern to state and federal agencies.

Raptors and all migratory bird species, whether listed or not, also receive protection under the Migratory Bird Treaty Act (MBTA) of 19183. The MBTA prohibits individuals to kill, take, possess or sell any migratory bird, bird parts (including nests and eggs) except per regulations prescribed by the Secretary of the Department (16 U. S. Code 7034).

Additional protection is provided to all bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended⁵. State protection is extended to all birds of prey by the California Fish and Game Code, Section 2503.56. No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

³ <https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>

⁴ <https://www.fws.gov/le/USStatutes/MBTA.pdf>

⁵ <https://www.fws.gov/le/USStatutes/BEPA.pdf>

⁶<https://law.justia.com/codes/california/2015/code-fgc/division-4/part-2/chapter-1/section-3513>

No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

Findings

At the time of the survey, the parcel had very limited marginal nesting habitat for ground-nesting bird species. There is no shrub habitat. There is a tree row running east-west through the center of the property that may provide nesting habitat for birds,

A breeding bird survey following the recommended guidelines of the MBTA will be required to determine if nesting is occurring in this area.

1. If the start of construction occurs between February 1 and August 31, then a qualified biologist shall conduct a breeding bird survey no more than three days prior to the start of construction to determine if nesting is occurring.
2. If occupied nests are found, they shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are capable of independent survival.
3. If the biologist is not able to verify one of the above conditions, then no disturbance shall occur within a distance specified by the qualified biologist for each nest or nesting site. The qualified biologist will determine the appropriate distance in consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

“Construction” includes selection of staging areas, demolition, tree, trash and debris removal, placement of equipment and machinery on to the site preparatory to grading, and any other project-related activity that increases noise and human activity on the project site beyond existing levels. Emergency measures are exempt from this definition.

5.0 References

- Army Corps of Engineers, 1994. *U.S. Army Corps of Engineers Regulations, Appendix C in Wetlands Regulation, A Complete Guide to Federal and California Programs*, 1995, P.D. Cylinder, K.M. Bogdan, E.M. Davis and A. J. Herson, eds., Solano Press Books, Point Arena, California.
- Army Corps of Engineers. 1992. "CECW-OR Memorandum: Clarification and interpretation of the 1987 manual".
- Army Corps of Engineers, 1991. "CECW-OR Memorandum: Questions and answers on the 1987 manual".
- Baldwin, B.G. and Goldman, D.H., 2012. *The Jepson Manual: Vascular Plants of California*. University of California Press.
- California Department of Fish and Game, 1984. *Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities*. Natural Heritage Division, California Department of Fish and Game.
- California Department of Fish and Game, 1990. *California's Wildlife, Volume 2, Birds*. The Resources Agency, Sacramento, California.
- California Department of Fish and Wildlife, May 2020. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. California Wildlife Habitat Relationships Program, Sacramento.
- Soil Survey Staff, Natural Resources Conservation Service, 2020. United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed May 3, 2019.

Appendix A - Plant and Animal Species Observed

Plants

Scientific Name	Common Name	Status
EUDICOTS		
ADOXACEAE	MOSCHATEL FAMILY	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	Blue Elderberry	non-native
AMARANTHACEAE	AMARANTH FAMILY	
<i>Amaranthus albus</i>	Tumbleweed	non-native
ASTERACEAE	SUNFLOWER FAMILY	
<i>Ambrosia acanthicarpa</i>	Flat-spined Bur Ragweed	native
<i>Artemisia californica</i>	Coastal sage brush	native
<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>	Common sandaster	native
<i>Ericameria palmeri</i>	Palmer's goldebush	native
<i>Erigeron canadensis</i>	Canadian Horseweed	Native
<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>	Golden yarrow	native
<i>Helianthus annuus</i>	Annual sunflower	native
<i>Heterotheca grandiflora</i>	Telegraph weed	native
<i>Lactuca serriola</i>	Prickly lettuce	non-native
<i>Stephanomeria virgata</i>	Twiggy wreathplant	native
BORAGINACEAE	BORAGE FAMILY	
<i>Amsinckia intermedia</i>	Fiddleneck	native
BRASSICACEAE	MUSTARD FAMILY	
<i>Descurainia pinnat</i>	Western tansymustard	native
<i>Hirschfeldia incana</i>	Mustard	invasive non-native
<i>Raphanus sativus</i>	Jointed charlock	Invasive non-native
CHENOPODIACEAE	GOOSEFOOT FAMILY	
<i>Salsola tragus</i>	Russian thistle	invasive non-native
EUPHORBIACEAE	SPURGE FAMILY	
<i>Croton setiger</i>	Turkey-mullein	native
<i>Ricinus communis</i>	Castorbean	non-native
GERANIACEAE	GERANIUM FAMILY	
<i>Erodium cicutarium</i>	Coastal heron's bill	invasive non-native
MALVACEAE	MALLOW FAMILY	
<i>Malva parviflora</i>	Cheeseweed	non-native
MONOCOTS		
POACEAE	GRASS FAMILY	
<i>Avena barbata</i>	Slender wild oats	Invasive non-native
<i>Bromus diandrus</i>	Ripgut brome	invasive non-native
<i>Bromus madritensis</i> ssp. <i>rubens</i>	Foxtail brome	invasive non-native
<i>Bromus tectorum</i>	Cheatgrass	Invasive non-native
<i>Hordeum murinum</i>	Mouse barley	Invasive non-native
<i>Schismus barbatus</i>	Old han schismus	invasive non-native

Animals

COMMON NAME	SCIENTIFIC NAME
Bushtits	Aegithalidae
Bushtit	<i>Psaltriparus minimus</i>
Swifts	Apodidae
White-throated Swift	<i>Aeronautes saxatalis</i>
Pigeons and Doves	Columbidae
Rock Pigeon	<i>Columba livia</i>
Mourning Dove	<i>Zenaida macroura</i>
Eurasian Collared Dove	<i>Streptopelia decaocto</i>
Crows and Ravens	Corvidae
American Crow	<i>Corvus brachyrhynchos</i>
Common Raven	<i>Corvus corax</i>
Finches	Emberizidae
Lark Sparrow	<i>Chondestes grammacus</i>
Falcons and Hawks	Falconidae
American Kestrel	<i>Falco sparverius</i>
Finches	Fringillidae
House Finch	<i>Haemorhous mexicanus</i>
Lesser Goldfinch	<i>Spinus psaltria</i>
Swallows	Hirundinidae
Barn Swallow	<i>Hirundo rustica</i>
Blackbirds and Orioles	Icteridae
Hooded Oriole	<i>Icterus cucullatus</i>
Mimic Thrushes	Mimidae
Northern Mockingbird	<i>Mimus polyglottos</i>
Sparrows	Passeridae
House Sparrow	<i>Passer domesticus</i>
Starlings	Sturnidae
European Starling	<i>Sturnus vulgaris</i>
Hummingbirds	Trochilidae
Anna's Hummingbird	<i>Calypte anna</i>
Tyrant Flycatchers	Tyrannidae
Say's Phoebe	<i>Sayornis saya</i>
Black Phoebe	<i>Sayornis nigricans</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Pocket gophers	Geomyidae
Botta's pocket gopher	<i>Thomomys bottae</i>