

Appendix C – Biological Technical Report, Burrowing Owl Focused Survey Report, Crotch's Bumble Bee Focused Survey Report, and Focused Sensitive Plant Survey

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RVA

Euclid Avenue Bridge Project

City of Chino, San Bernardino County, California

Biological Technical Report

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List of Acronyms / Abbreviations

AMSL	Above Mean Sea Level
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
City	City of Chino
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ECOS	Environmental Conservation Online System
ESA	Endangered Species Act
^{O}F	Fahrenheit
GPS	Global Positioning System
ITP	Individual Take Permit
IPaC	Information for Planning and Conservation
SR71	State Route 71
M	Meters
MBTA	Migratory Bird Treaty Act
NGVD	National Geodetic Vertical Datum
NPS	National Park Services
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High-water Mark
Project	Euclid Avenue Bridge Project
ROW	Right of Way
RVA	Ruth Villalobos & Associates Inc.
State Route 83	Euclid Avenue
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture

USFWS	United Fish and Wildlife Services
WoUS	Waters of the United States

1.0 INTRODUCTION

Ruth Villalobos & Associates, Inc. (RVA) prepared this biological technical report for the Euclid Avenue Bridge Project (Project) located in the City of Chino (City), San Bernardino County, California. The Project proposes to create a new "all-weather" bridge facility along Euclid Avenue not subject to closure during storm events. The structure would protect Euclid Avenue from flood waters during extreme storm events allowing the new roadway to remain open to traffic and enhancing public safety. The following biological technical report provides the results of the biological resources assessment for the proposed Project and includes a thorough literature review, field reconnaissance survey observations, an impact analysis, and a discussion of recommended mitigation measures.

1.2 Project Location

The proposed Euclid Avenue Bridge Project site is located along Euclid Avenue (State Route 83) between Pine Avenue and State Route 71 (SR71) within the City of Chino, San Bernardino County, California (see **Figure 1 – Regional Vicinity**). The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/SR71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82') (see **Figure 2 – Site Vicinity**). The Project will be conducted entirely within the public right-of-way. This segment of Euclid Avenue is a major north-south route through the city serving as an essential route for transport of goods and for connections to various parts of the Project site region. Euclid Avenue connects the cities of Chino Hills, Ontario, and other adjacent cities to Orange and Los Angeles counties via access to SR71, State Route 60, and State Route 91.

This portion of Euclid Avenue is located within the Prado Basin and crosses Chino Creek. The Project site is located within the northern portion of the Prado Flood Control Basin in San Bernardino County. The Project site is located entirely below the United States Army Corps of Engineers (USACE) designated 566-foot above mean sea level (AMSL) National Geodetic Vertical Datum (NGVD) 29 inundation elevation for Prado Dam. All land below this elevation is considered subject to flooding from normal operations of the Dam. In addition, the Project site overlaps the USACE and Orange County Water District Prado Basin Ecosystem Restoration and Water Conservation integrated Feasibility Report footprint for the Chino Creek Restoration activities and overlaps with a Congressionally authorized restoration project including a native planting area.

The Project is also located within a USACE flowage easement. The USACE Los Angeles District presently is embarking on the Prado Dam Spillway Modification project to raise the Dam and Spillway and thereby would increase the Prado Basin capacity.

1.3 Project Description

The Project will address three primary goals:

1. To create a new "all-weather" facility not subject to closures during storm events, and thereby:
    a. Improve safety for motorists and pedestrians by reducing the possibility of encountering flood waters.
    b. Enhance mobility and circulation for the community during the rainy season.
    c. Provide unhindered access for emergency vehicles.

2. To alleviate traffic congestion and remove roadway bottlenecks.
3. To provide active transportation facilities for improved cyclist and pedestrian access.

Additionally, the Project seeks to improve safety at the intersection of Euclid Avenue and Pomona Rincon Road through the addition of ramps and right-turn movements on and off of Euclid Avenue.

The Project site is approximately 20.5 acres in area. Project development would include elevating Euclid Avenue above the Prado Basin 50-year inundation pool elevation (543 feet above mean sea level). The Feasibility Study Report identified potential wetland and non-wetland waters of the United States along Euclid Avenue. A long bridge structure is desirable because a pile-supported bridge will reduce permanent biological impacts and in turn is anticipated to expedite USACE and regulatory agency permitting processes. The Project would include construction of a new viaduct structure (i.e. "Euclid Avenue Viaduct") crossing above Pomona Rincon Road and over Chino Creek within the Prado Basin. Thereby, Project development would protect Euclid Avenue from flood waters associated with extreme rain events and allow the new roadway to remain open to traffic during storm events. Traffic circulation would be facilitated further by widening the new roadway to four lanes to match existing roadway capacity and by adding bicycle and pedestrian lanes. In addition, embankments supported by retaining walls will be constructed outside the limits of the Euclid Avenue Viaduct. See **Attachment 1, Figure 3 – Project Characteristics**, including the bridge cross sections/elevations/new traffic lanes/bicycle and pedestrian facilities/etc.

Project development would require an estimated 20,000 cubic yards of cut and 96,000 cubic yards of fill material. Cut material will not be suitable to use as fill. Therefore, fill material will be transported along existing roadways from areas outside the Project site. It is assumed the USACE will require the 76,000 cubic yards of imported fill material to be offset with excavation/borrow elsewhere within the Prado Basin although the borrow location has not been determined.

The sensitive water and biological resources in the project area were taken into consideration during the Project's development and design with impacts to them minimized to the greatest extent feasible. Retaining walls and imported fill soils will be constructed outside the jurisdictional limits. Fill material is anticipated to be secured elsewhere in the Prado Basin, potentially within USACE Federal lands and/or easements. For visual exhibit of the Projects extents of the development footprint see **Attachment 1, Figure 4A and B – Project Overview Map**.

Prior to project development, potholing and geotechnical boring activities will be necessary to aid the final design plan. Potholing is required to verify the presence and location of underground utilities. A total of 26 pothole locations are proposed within the Euclid Avenue Bridge Project construction footprint. Each pothole would have an average diameter of 12 inches, depth of 5 feet (not to exceed depth of 10 feet), and 4 cubic yards of material removed and would be backfilled with sand. Equipment used would include an air-vac truck, a heavy-duty pick-up truck, and two traffic control trucks. All potholes are in the roadway or immediately adjacent to the roadway.

A total of 27 geotechnical borings are proposed, each with an average diameter of 10 inches with varying depths from 10 feet up to maximum of 100 feet. All proposed geotech boring locations are proposed within the Euclid Avenue Bridge Project construction footprint. Boring methods would include either hollow-stem auger borings or rotary-wash borings. Equipment used would include a drill rig, support truck, pick-up truck, and traffic control trucks.

Project development will occur in six phases that will include the following activities: clearing and grubbing; grading; foundation construction; substructure construction; superstructure construction; retaining wall construction; and roadway construction. These development activities will occur over

approximately 18-24 months (commencing in March 2027) and be conducted Monday-Friday between 7:00 a.m. and 5:30 p.m. although the City of Chino Municipal Code allows such activity to extend to 8:00 p.m. Night and weekend work may be required throughout construction (to tie back into the existing portions of Euclid Avenue at the ends of the Project improvements, for example), but would have short durations.

The following describes anticipated project phases, including estimated construction equipment and daily number of workers on site:

- Phase 1 (Clearing and Grubbing): This development phase will consist of removing existing vegetation within the limits of the Project, using four Cat 924K front end loaders (or similar equipment), a 15-ton crane, and six 25 cubic yard dump trucks. It is anticipated 20 workers (daily) would be required to accomplish these activities. A significant amount of vegetation will need to be removed to accommodate Project improvements.
- Phase 2 (Grading): Grading will prepare the Project site for construction activities. Two Cat D9 dozers (or similar), one grader, and a water truck operated by 10 workers will accomplish this phase.
- Phase 3 (Foundation Construction): It is anticipated 12 workers will operate at least one Bauer BG40 drill rig (or similar device), two 70-ton cranes, one hydraulic casing oscillator, one concrete pump, one skid steer, one forklift, one manlift, as many as five slurry tanks, one generator, and one water truck to accomplish this phase.
- Phase 4 (Substructure Construction): Approximately 25 workers will complete this phase using two 160-ton cranes, four manlifts, two forklifts, and one water truck.
- Phase 5 (Superstructure Construction): Approximately 35 workers will use one 330-ton crane, four manlifts, two forklifts, and one water truck to complete this phase.
- Phase 6 (Approach Embankment Construction): Approximately 25 workers will use one roller compactor, one Cat 924K front end loader (or similar), one grader, six 25 cubic yard dump trucks, two forklifts, and one water truck to complete this phase.

Multiple staging areas will be required during construction, including one such area at the north end of the Project site (to be available throughout the duration of the Project) immediately south of the entrance to Prado Regional Park. A second staging area is anticipated at the south end of the Project site that will be available until the Pomona Rincon Road ramps are constructed. All ingress and egress for Project construction vehicles will be via Euclid Avenue and Pomona Rincon Road and additional ingress/egress from Pomona Rincon Road and Euclid Avenue will be available for the routine maintenance of the viaduct superstructure.

Utilities are present within the Project site and will require protection-in-place or relocation as part of Project development. Southern California Edison has overhead and underground distribution lines, some of which will require relocation. Verizon has several buried and overhead aerial communication lines near the Pomona Rincon Road intersection. There also is a Santa Ana Watershed Project Authority Brine Line, 36-42 inches in diameter, located approximately 33 feet east and parallel to the Euclid Avenue centerline. This brine line is anticipated to be protected in place.

The on-site vegetation will be allowed to grow back naturally after Project development. Required irrigation for any potential re-planted vegetation would be temporary and occur via water trucks using recycled water. Water trucks also will be used to ensure compliance with Section 10-5 Dust Control of the Caltrans Standard Specifications requirements, which may consist of applying a dust palliative, temporary soil stabilization, and other mitigation.

PROJECT MAINTENANCE

After Project development is complete, the City of Chino will conduct routine long-term maintenance of existing at-grade asphalt concrete roadway. The proposed elevated concrete viaduct would also require maintenance, along with maintenance of vegetation beneath the structure. Maintenance would be conducted on an as-needed basis, but is estimated to be necessary no more frequently than six times annually according to the following schedule:

- A five-person City crew will control vegetation along the roadway and beneath the bridges every two months;
- A three-person City Crew will perform general clean-up and graffiti removal; and,
- A five-person crew will repair or replace bridge deck expansion joints, spalling concrete, and conduct other general maintenance every 15 years.

Methacrylate resin that will be used to fill cracks in the deck is expected to occur every 25 years. Methacrylate will not be stored on the Project site. A total of 1,500 gallons of the chemical would be needed. Spills, should they occur, would be cleaned according to the manufacturer's instructions and the future contractor's Health and Safety Plan for the maintenance activities.

2.0 METHODS

2.1 Biological Resources Assessment

2.1.1 Biological Resources Literature Review

RVA biologists conducted a thorough preliminary desktop analysis and literature review of the Project area and the surrounding areas. The desktop analysis included a literature review and records search to determine what sensitive biological resources have the potential to occur on the Project area. The desktop review specifically focused on finding Federally and/or State designated sensitive wildlife and plant species, along with potential habitats supporting these species. All findings of the desktop review serve as a basis of information and are verified during the field survey of the Project area and surrounding areas. The desktop review included multiple electronic records databases, species specific informational resources and field identification guides. All informational material referred to in this literature review is cited in the references section of this report. The electronic database and records review included the following resources:

- **Calflora's Observation Database** is an internet database providing documented occurrences of plant species observed throughout California. The website also provides species specific information as well as links to additional scientific resources covering the individual species' lifecycles in detail.
- **California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB – RareFind 5)** is an internet database providing spatial data of sensitive plant and animal species as well as sensitive vegetation communities occurring in California. Records of species observances from the *Prado Dam and Corona North* USGS quadrangle were obtained from this database to aid the field survey.
- **California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California** is an online database which uses four (4) specific categories or "lists" to aid in the conservation of rare or endangered botanical resources. Plants are categorized in the following California Rare Plant Ranks (CRPR) 1A, 1B, 2A, or 2B are presumed "threatened" or "endangered" per California

Endangered Species Act (CESA) and the California Fish and Game Code (CFGC). Therefore, all potential impacts to these species must be evaluated pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15125(c) and 15380. Plants with CRPR 3 (limited information), CRPR 4 (limited records), or considered "Locally Significant" may potentially be analyzed under the CEQA if there is sufficient information to support a conclusion stating a "project's development would potentially inflict significant impacts on a species of the aforementioned ranks." Records from the *Prado Dam and Corona North* USGS quadrangle surrounding the Project area were obtained from this database to supplement the field survey.

- **United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey** is an online database which lists archived soil surveys. These soil surveys can be utilized for general farm, local, and wider area planning. In addition, a review of the local geological conditions and historical aerial photographs were conducted to assess the ecological changes the area has undergone.
- **USFW Information for Planning and Conservation (IPaC) Powered by the Environmental Conservation Online System** (ECOS) is a database which provides a spatial analysis for the potential of a proposed, candidate, threatened, and/or endangered species to occur on or near a specified area. IPaC also provides data on current critical habitats, national wildlife refuges, jurisdictional wetlands, and migratory birds which could potentially be impacted by activities from a proposed Project. RVA used an unofficially generated IPaC Trust Resource Report for the Project area to assist with the field survey.
- **USFWS Wetlands Mapper** is an Online web hosted map which displays wetlands mapped to be consistent with a biological definition of areas which ecologically function as wetlands.

A total of 50 sensitive plant and wildlife species were documented to occur as well as four (4) sensitive habitats were documented to occur within the *Prado Dam* and *Corona North* quadrangles returned from the CNDDB database search. A full list of these species can be found in Attachment 2 – Potentially Occurring Species.

The desktop review of the *Prado Dam and Corona North* quadrangles revealed a total of fifteen (15) wildlife and plant species, designated as Federally and or State listed, having documented occurrences within the general vicinity of the Project area. These species are as follows:

- **Amphibians:** western spadefoot (*Spea hammondii*).
- **Avian:** Tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), California black rail (*Laterallus jamaicensis coturniculus*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*). *(Golden Eagle and White-Tailed Kite are fully protected species under CESA and the ESA).
- **Fish:** Santa Ana sucker (*Catostomus santaanae*) and Steelhead trout (*Oncorhynchus mykiss irideus*).
- **Insects:** Crotch bumblebee (*Bombus crotchii*).
- **Mammals:** Stephens' kangaroo rat (*Dipodomys stephensi*).
- **Plants:** Braunton's milk-vetch (Astragalus brauntonii) and Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*).
- **Reptiles:** southwestern pond turtle (*Actinemys pallida*).

2.1.2 Biological Resources Field Survey Assessment

RVA staff biologists Miranda Villalobos, Justinne Manahan, and Zachary Jenson completed a biological resource assessment of the Project area and the surrounding areas on the following days March 4th, 2024, March 5th, 2024, May 29th, 2024, and October 22nd, 2024. The survey weather conditions can be found in Table 1 – *Biological Resourve Assessment Field Surveys site Conditions* below. The survey area for the biological resource assessment of the Project area consisted of a 100-foot buffer beyond the perimeter of the Project area. A visual walking assessment of the survey area was completed by walking transects spaced approximately 5 meters apart to allow for 100 percent visual coverage of the ground surface. Due to the density of vegetation in the areas to the east and west of Euclid Avenue as well as the inundation of water within these areas transects meandered in an attempt to achieve 100 percent visual coverage. Areas of the Project area not accessible on foot or are private property were visually assessed using binoculars. All biological resources observed in the survey area were recorded in a field notebook. A mobile phone camera with geolocation tagging was utilized to photograph and record existing site conditions. Points of interest and the limits of vegetation communities observed were mapped during this assessment and were recorded with a Trimble Geo 7x global positioning system (GPS) unit with submeter accuracy. The findings of the biological resource assessment are individually discussed below in the *Results* section of this report.

Table 1: Biological Resource Assessment Field Surveys Site Conditions

Survey Date(s)	Survey Type	Field Biologists	Survey Hours (start – end)	Weather Conditions (Start)	Weather Conditions (End)
03/04/2024	General Biological Habitat Assessment	Miranda Villalobos, Justinne Manahan, and Zachary Jenson	8:00am – 12:00pm	Clear cool 57°F, 62% humidity, 0% precipitation, and no wind.	Partly cloudy 62°F, 56% humidity, 0% precipitation, and wind 11.5mph to the east.
03/05/2024	General Biological Habitat Assessment	Miranda Villalobos, Justinne Manahan, and Zachary Jenson	8:00am – 12:00pm	Clear cool 54°F, 77% humidity, 0% precipitation, and no wind.	Clear cool 63°F, 60% humidity, 0% precipitation, and wind 8mph to the south.
05/29/2024	General Biological Habitat Assessment	Miranda Villalobos, Justinne Manahan, and Zachary Jenson	8:00am – 11:00am	Cloudy 61°F, 84% humidity, 0% precipitation, and wind 5mph to the southwest.	Partly cloudy 70°F, 66% humidity, 0% precipitation, and wind 8mph to the east.
10/22/2024	General Biological Habitat Assessment	Miranda Villalobos, Justinne Manahan, and Zachary Jenson	8:00am – 11:00am	Clear 59°F, 84% humidity, 0% precipitation, and no wind.	Partly cloudy 82°F, 40% humidity, 0% precipitation, and wind 3mph to the east.

2.2 Jurisdictional Features Assessment

2.2.1 Jurisdictional Features Literature Review

RVA biologists conducted a literature review and records search to identify the presence of potentially jurisdictional hydrological features within the Project area and the surrounding areas as a part of the desktop review. The desktop review specifically looked for hydrological features conveying flows of water perennially or ephemerally, as well as wetland areas experiencing inundation of water. All findings of the desktop review serve as a basis of information and are verified during the field survey of the Project area and surrounding areas. The desktop review included multiple electronic records databases, geographical maps, and field identification guides. All informational material referred to in this literature review is cited in the references section of this report. The electronic database and records review included the following resources:

- **State Water Resources Control Board (SWRCB) Stream Classification Finder Map** is an online web hosted map which displays waterbodies and watercourses based on data provided by the United States Geological Survey National Hydrography Dataset and is one source of information used by Water Board Staff to evaluate past and present watercourse classifications.
- **USDA NRCS Soil Survey** is an online database which lists archived soil surveys. These soil surveys can be utilized for general farm, local, and wider area planning. In addition, a review of the local geological conditions and historical aerial photographs were conducted to assess the ecological changes the area has undergone.
- **USFW Wetlands Mapper** is an Online web hosted map which displays wetlands mapped consistent with a biological definition of an areas which ecologically function as wetlands.

The SWRCB Stream Classification Finder and USGS topographical maps provide the preliminary basis of information for the presence of hydrological features. Historical aerial photos are also utilized to locate and further inspect any potential drainage features and waterbodies historically existing in and or around the Project area. All features suspected to exhibit flow and consist of riparian/riverine habitat with the potential fall under the jurisdiction of the USACE, the RWQCB, and or CDFW were thoroughly analyzed and cross-referenced using all the preceding references. The findings of the desktop review were used as a basis of information investigated during the jurisdictional delineation field survey. All data and information found during the preliminary desktop review is verified during the field survey of the Project area.

Lateral limits of non-wetland waters of the U.S./State for USACE and RWQCB were identified using field indicators of an ordinary high-water mark (OHWM) as described in A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States (USACE 2010). For each feature exhibiting the potential presence of an OHWM, RVA biologists completed a 2010 Arid West Ephemeral and Intermittent Streams OHWM Datasheet following the guidance provided in the Updated Datasheet for the Identification of the OHWM in the Arid West Region of the Western United States (USACE 2010). Lateral limits of non-wetland waters of the United States (WoUS) for USACE and RWQCB were identified using field indicators of an OHWM as described in A Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States (USACE 2010).

CDFW potential jurisdictional boundaries were determined based on the presence of streambed and associated riparian habitat and/or wetland areas. Streambeds considered within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water flowing at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. Including watercourses having a surface or subsurface flow supporting riparian vegetation” (Title 14, Section 1.72).

2.2.2 Jurisdictional Features Field Survey Assessment

RVA biologists Miranda Villalobos, Justinne Manahan, and Zachary Jenson conducted a jurisdictional delineation of the proposed Project site on March 4th, 2024. The jurisdictional delineation, March 4th, was performed shortly after a rain event (e.g., the two days prior) though no rain occurred on the days of the delineation. Weather conditions on March 4th, included a starting temperature of 50 degrees Fahrenheit (^{O}F), partly cloudy skies, zero percent precipitation, 74 percent humidity, and no winds. A follow-up site visit occurred on October 22nd, 2024, to expand the survey area and confirm jurisdictional widths associated with Chino Creek and the associated wetlands within the Prado Basin. Weather conditions on October 22nd included a starting temperature of 76 ^{O}F, clear skies, zero percent precipitation, 35 percent humidity, and five (5) miles per hour winds. The scope of the field assessments included the proposed Project's area of disturbance and an approximately 100-foot survey buffer.

2.3 Focused Species Surveys

2.3.1 Focused Fish and Herpetofauna Surveys

Below is a summary of the survey methods conducted for the fish and herpetofauna species for the project. Further details of the methods and results are discussed in detail in a separate letter report, which is provided as Attachment 7, *Focused Fish and Herpetofauna Survey Report*.

USGS Western Pond Turtle Visual Survey Protocols

Applied Ecology Solutions conducted surveys for western pond turtle in accordance with USGS Western Pond Turtle Visual Survey Protocols. Habitat suitability for pond turtles was evaluated for presence of basking sites, aquatic refugia, streamside refugia, and upland nesting habitat. Visual surveys included active searches of aquatic habitat with and without binoculars for the presence of basking or swimming turtles as well as close examination of suitable basking areas on banks, instream emergent tree stumps and branches or other emergent or floating objects for the presence of slides or claw marks. Open pools were approached slowly and stealthily to avoid disrupting basking turtles and to detect their splash when entering the water. Visual surveys were also conducted concurrently with nocturnal surveys for fish during which biologists searched for swimming or submerged turtles. When a turtle was observed, survey biologists attempted to record a voucher photo and determined species, age class, sex, GPS coordinates and physical disposition (indicators of health, including activity and evidence of disease and/or physical injury). GPS coordinates were also recorded where evidence of turtle presence was observed (e.g., slides, claw marks, or flushed turtles) but a species determination could not be made.

US Department of the Interior Aquatic Amphibians Protocol

Applied Ecology Solutions conducted surveys for aquatic amphibians with particular attention to special status species potentially occurring in the region such as Arroyo toad (*Anaxyrus californicus*), Coast Range newt (*Taricha torosa*), and Western spadefoot (*Spea hammondii*). Following standardized protocols developed by the National Park Service (NPS) and other agencies, biologists performed amphibian surveys throughout the proposed project area. In addition to amphibians, turtles and snakes were also recorded if encountered while conducting aquatic surveys. Survey techniques involved visual searches with and without binoculars. Surveyors first performed diurnal surveys of the project site and aquatic habitat to identify areas most suitable for each life stage of the target species. Those areas deemed most suitable were noted and received additional attention during focused surveys. Surveyors moved upstream, scanning up to 15 meters (m) upstream with binoculars, surveying banks, exposed rocks, and emergent vegetation. This method involved visual searches for vocalizing male toads or pairs in amplexus and walking in the creek and on adjacent banks visually searching for amphibians, eggs, larvae, juveniles and foraging adults. Surveyors also examined overhanging banks, holes within banks and under logs

throughout the survey area. Observations were compared and tallied at the conclusion of surveys (NPS, WRCU, NRTR, 1995).

Visual searches necessitated slowly walking and visually examining banks, refugia and the creek bottom. Data collection included a voucher photo, species determination, GPS coordinates (for special status species), life stage, and quantity of individuals observed.

US Department of the Interior Aquatic Amphibians Protocol

Following standardized protocols developed by the National Park Service (NPS) and other agencies, Applied Ecology Solutions biologists performed amphibian surveys throughout the proposed project area. Survey techniques involved visual searches with and without binoculars. Surveyors first performed diurnal surveys of the project site and aquatic habitat to identify areas most suitable for each life stage of the target species. Those areas deemed most suitable were noted and received additional attention during focused surveys. Surveyors moved upstream, scanning up to 15 meters (m) upstream with binoculars, surveying banks, exposed rocks, and emergent vegetation. This method involved visual searches for vocalizing male toads or pairs in amplexus and walking in the creek and on adjacent banks visually searching for amphibians, eggs, larvae, juveniles and foraging adults. Surveyors also examined overhanging banks, holes within banks and under logs throughout the survey area. Observations were compared and tallied at the conclusion of surveys. Visual searches necessitated slowly walking and visually examining banks, refugia and the creek bottom. Data collection included a voucher photo, species determination, GPS coordinates (for special status species), life stage, and quantity of individuals observed.

CDFW Stream Bank Observation Fish Sampling Method

Applied Ecology Solutions biologists performed stream bank observations following CDFW protocols to determine the presence or absence of fish species potentially occurring in the study area (FRGP, 2010). All aquatic habitat within the study area was surveyed to determine habitat suitability and species composition. Due to water quality concerns associated with urban runoff, snorkel surveys were not performed. To satisfy underwater observations typically obtained from snorkel surveys, Applied Ecology Solutions performed nocturnal visual and underwater surveys with the use of a waterproof video camera and headlamps. Species determinations were attempted in the field but often required desktop verification from recorded footage. While numbers of species observed were recorded, they should not be considered a measurement of species abundance given the surveys could not cover 100% of potentially occupied habitat. Data collected included water quality (temperature, pH, salinity, turbidity, and dissolved oxygen), species determination (if feasible), voucher photo (video still image), size class, sex (if feasible) and approximate number of each species observed. Species determinations not made in the field were verified during desktop review of recorded underwater video footage.

2.3.2 Avian Survey

Below is a summary of the survey methods conducted for avian species for the project by Jon Feenstra of Woodstar Biological LLC. Further details of the methods and results are discussed in detail in a separate letter report, which is provided as Attachment 6, *Presence/Absence Surveys for Yellow Billed Cuckoo, Southwestern Willow Flycatcher, and Least Bell's Vireo*.

Least Bell's Vireo (*Vireo bellii pusillus*)

Following USFW'S 2001 survey protocols for least bell's vireo surveys, eight focused surveys were conducted within the survey area between April 10th and July 31st. The surveys were conducted ten days apart and at different locations throughout the survey area to ensure that all the suitable habitat was

covered during the surveys. Surveys were conducted during the morning between sunrise and 11:00 am. Recorded vocalizations of the species were not played during the active survey.

Southwestern Willow Flycatcher (*Empidonac traillii extimus*)

Following USGS 2010 survey protocols for southern willow flycatcher surveys, five focused surveys were conducted within the survey area, one in the first survey period between May 15th and 31st, two within the second survey period between June 1st and 24th, and two within the third survey period between June 25th and July 17th. The surveys were conducted at different locations throughout the survey area to ensure that all the suitable habitat was covered during the surveys. Surveys were conducted during the morning between sunrise and 10:30 am. These surveys utilized recorded vocalizations of the species effectuated by a permitted biologist ensuring that the species were not unduly disturbed, and predators are not present. As per the USFW'S guidelines, surveys were not conducted coinciding with surveys for other species.

Yellow-Billed Cuckoo (*Coccyzus americanus*)

Following USFW'S survey protocols for yellow-billed cuckoo, four focused surveys were conducted within the survey area, one within the first survey period between June 15th and 30th, two in the second survey period between July 1st and 31st, and one in the third survey period between August 1st and 15th. The surveys were conducted at intervals of 100 meters through the suitable habitat within the survey area. Surveys were conducted during the morning between sunrise and 11:00 am. These surveys utilized recorded vocalizations of the species effectuated by a permitted biologist ensuring that the species were not unduly disturbed, and predators are not present. As per the USFW'S guidelines, surveys were not conducted coinciding with surveys for other species.

3.0 RESULTS

3.1 Environmental Setting

The approximately 34.61-acre Project area and the associated survey area are within the Prado Basins "largest contiguous riparian forest" and wetland habitats in Southern California (USACE, 2019). This riparian forest and wetlands habitats occurring within the Prado Basin area support a large amount of biodiversity and is a critical area for species behaviors and resource needs including migration, wildlife movement and connectivity, and nursery areas for the raising of young (USACE, 2019). The concentration of biotic and abiotic resources within this area has broader impacts on the surrounding region including the downstream riparian/riverine habitats as well as the surrounding transitional and upland habitats (USACE, 2019). The sensitive riparian habitat within the Prado basin covers approximately 4,500 acres (USACE, 2019). This limited area of riparian habitat within the Prado Basin is of extreme ecological importance and is encapsulated by anthropogenic development on nearly all sides of the basin. This proximity of sensitive riparian habitats to anthropogenic development poses a threat to the ecosystem within the basin and to the broader ecosystems that depend on the basin's role in providing biotic and abiotic resources. These resources are crucial not only for supporting species throughout their entire life cycles but also for sustaining them during specific life stages. Threats faced by the habitats within the Prado Basin today include: climate variability, development, introduction of invasive species, pollution, and wildfire (USACE, 2019).

The Project area and the associated survey area is within the northwestern extent of the Prado Basin just upstream of the confluence of Chino Creek into the impounded water of the Santa Ana River within the county of San Bernardino. The Project area is specifically located along Euclid Avenue and encompasses the Euclid Avenue right of way (ROW) easement as it crosses through the Prado Basin and over Chino

Creek. This area is directly to the south of the Prado Regional State Park extending down south past the Prado Olympic Shooting Park. The latitude and longitude for the approximate middle of the Project area is located at 33.938150° -117.655098°. The Project area's topographical profile is higher in the northern and southern extents with a depression in the middle where Euclid Avenue crosses within the Prado basin. Elevations across the Project area vary, ranging from a low point, within the basin, of approximately 515 ft. AMSL to high points, in the north and south, respectively at approximately 538 ft. AMSL and approximately 545 ft. AMSL.

3.2 Soils

A review of the USDA's Web Soil Survey indicates the Project area consists of four (4) soil types (see **Figure 5 – Soils Map**). Soils make up a part of the basic characteristics of all habitats, providing the abiotic conditions for vegetation. Soil characterization is an effective indicator in understanding the vegetation present within the Project survey area as well as understanding the potential for special status plant species. Special status plant species often depend on specific abiotic resources, including particular soil characteristics, which can help identify areas likely to support the species. The following soil types are documented and mapped to be within the Project area and are further described in Table 2 – *Soils Documented to Occur Within the Project Area* below.

Table 2: Soils Documented to Occur Within the Project Area

Map symbology	Soil Unit Name	Description
Cb	Chino silt loams	Chino silt loam is a non-hydric soils type composed of loams originating from alluvium derived from mixed. This soils type occurs at elevations ranging between 20 and 3,000 ft. above AMSL with typical slopes range between 0 and 2 percent. The depth to restrictive feature is more than 80 inches. Chino silt loams have a drainage classification of somewhat poorly drained, a runoff classification of medium, and a flooding frequency of rare. Minor components of this soils type include 5 percent Unnamed, 5 percent Merrill silt loam, and 5 percent Hanford.
CkC	Chualar clay loam, 2 to 9 percent slopes	Chualar clay loam is a non-hydric soils type composed of clay loams originating from mixed alluvium derived from igneous, metamorphic and sedimentary rock. This soils type occurs at elevations ranging between 500 and 1,350 ft. above AMSL with typical slopes range between 2 and 9 percent. The depth to restrictive feature is more than 80 inches. Chualar clay loams have a drainage classification of well drained, a runoff classification of medium, and flooding frequency of none. Minor components of this soils type include 5 percent Sorrento clay loam, 5 percent Garretson, and 5 percent Aquents.
CkD	Chualar clay loams, 9 to 15 percent	Chualar clay loams, is a non-hydric soils type composed of clay loams originating from alluvium. This soils type occurs at elevations ranging between 600 and 1,100 ft. above AMSL with typical slopes range between 9 and 15 percent. The depth to restrictive feature is more than 80 inches. Chualar clay loams have a drainage classification of well drained, a runoff classification of medium, and flooding frequency of none. Minor

		components of this soils type include 5 percent Unnamed, 5 percent Garretson vfsl, and 5 percent Ramona sandy loam.
Gr	Grangeville fine sandy loam	Grangeville fine sandy loam is a non-hydric soils type composed of alluvium derived from granite. This soils type occurs at elevations ranging between 490 and 1,430 ft. above AMSL with typical slopes range between 0 and 2 percent. The depth to restrictive feature is more than 80 inches. Grangeville fine sandy loams have a drainage classification of somewhat poorly drained, a runoff classification of very low, and flooding frequency of rare. Minor components of this soils type include 5 percent Unnamed, 5 percent San emigdio fine sandy loam, and 5 percent Chino.

3.3 Vegetation Communities and Land Use Types

Ten (10) vegetation communities and land use types occur within the Project survey area (see **Figure 6 – Vegetation and Land Use Types).** The ten (10) vegetation and land use types include: Agricultural Land, Cottonwood Stand, Curly Dock-Poison Hemlock Patch, Developed Lands, Goodding's Black Willow-Eucalyptus Riparian Forest, Non-Native Grassland, Open Water, Poison Hemlock Patch, Ruderal Disturbed, and Southern Cottonwood-Willow Riparian Forest. A brief description of each vegetation community and land use mapped on the study area is provided below.

3.3.1 Agricultural Land

The Agricultural Land vegetation type occurs to the east of Euclid Avenue near the southeastern extent of the Project area and makes up approximately 3.26 acres within the Project survey area. The Agricultural Land, land use type is characterized by annual disking and planting of crop plants on privately owned land. This area lacks vegetative diversity due to the common use of monoculture in contemporary agricultural practices.

3.3.2 Cottonwood Stand

The Cottonwood Stand vegetation type occurs to the west of Euclid Avenue and south of Pomona-Rincon Road along the entrance of the Oranco Bowmen Archery Range and makes up approximately 0.22 acre within the Project survey area. This vegetation type consists of landscaped and irrigated eastern cottonwood (*Populus deltoides*) trees lining the driveway entrance into the Oranco Bowmen Archery Range.

3.3.3 Curly Dock-Poison Hemlock Patch

The Curly Dock-Poison Hemlock Patch vegetation type occurs to the east of Euclid Avenue, to the north of Pomona-Rincon Road, within the Project area, and makes up approximately 1.69 acres within the Project survey area. This vegetation type is characterized as a disturbed non-native wetland with saturated soils and pools of standing water when it is periodically flooded during the rainy season. The vegetation within this area is characterized by the dominance of curly dock (*Rumex crispus*) intermixed with poison hemlock (*Conium maculatum*) within the transitional zones of the habitat. This area also consisted of various other non-native vegetation intermixed with the dominant species such as species of grasses and mustards.

Curly dock is a non-native species designated as a facultative species according to the *2020 National Wetland Plant List*, for the Arid West Region, indicating, this species is commonly found in both wetland and non-wetland habitats. Poison hemlock (*Conium maculatum*) is a non-native species designated as a facultative wetland species according to the *2020 National Wetland Plant List*, for the Arid West Region,

indicating, this species is more commonly found in wetland/riparian habitats but can occur in non-wetland habitats.

3.3.4 Developed Lands

The Developed Lands land use type consists of areas dominated by pavement or permanent structures, where vegetation growth is typically absent. This land use type makes up approximately 14.45 acres within the Project Survey area. The Developed Lands areas of the Project area consist of paved roads such as the public infrastructure making up Euclid Avenue, as well as Pomona-Rincon Road. The Developed Lands areas within the Project area have no vegetation to very sparce vegetation supporting around the borders of the land use type mostly non-native species of exotic grasses.

3.3.5 Goodding's Black Willow-Eucalyptus Riparian Forest

The Goodding's Black Willow-Eucalyptus Riparian Forest vegetation type occurs primarily to the west of Euclid Avenue and north of Pomona-Rincon Road making up approximately 4.59 acres within the Project survey area. A small portion of this vegetation type occurs on the east side of Euclid Avenue just north of the entrance to the Inland Valley Retriever Club dog park. This vegetation type habitat is characterized as a riparian forest wetland with hydrological connections to Chino Creek. The vegetation within this habitat is characterized by the dominance of the species of Goodding's black willow (*Salix gooddingii*) intermixed with eucalyptus species. This habitat is stratified with eucalyptus species making up a tall emergent layer, willows and ash species making up a dense canopy, and shrubs, herbaceous, and grasslike species such as tree tobacco, caster bean, California wild grape, wild blackberry, flatsedge, and other grass species creating the sub-canopy/understory and forest floor cover.

These areas were primarily dominated by species such as Goodding's black willow (Salix gooddingii), velvet ash (Fraxinus velutina), tall flatsedge (Cyperus eragrostis), California blackberry (Rubus ursinus), tree tobacco (Nicotiana glauca), and castor bean (Ricinus communis).

3.3.6 Non-Native Grassland

The Non-Native Grassland vegetation type occurs on the far northern and southern extents of the Project area along Euclid Avenue and makes up approximately 23.59 acres within the Project survey area. This vegetation type is made up of an assortment of non-native grasses intermixed with sparce spaced herbaceous species.

3.3.7 Open Water

The Open Water land use type includes Chino Creek at the area where the Project area intersects with the Creek and makes up approximately 0.51 of an acre within the Project survey area. The flows of Chino Creek are characterized by perennial flows except when the region is subjected to extreme drought. The area of Chino Creek intersects with the Project area and is approximately two (2) miles upstream from the Creek's confluence with the Prado Flood Control Basin when measured following the water course. Flows at Chino Creek are seasonally influenced during the winter and spring wet months where higher flows can be observed. Chino Creek also experiences inundation within the Project area during large storm events and is within the USACE designated 566-foot AMSL, NGVD 29, inundation elevation for Prado Dam. The slow moving and often inundated flows of Chino Creek provides a riverine habitat for amphibian, avian, fish, and reptile species as well as serving as path for wildlife movement.

3.3.8 Poison Hemlock Patch

The Poison Hemlock Patch vegetation type occurs to the east of Euclid Avenue, and directly north of Pomona-Rincon Road, within the Project area, and makes up approximately 2.0 acres within the Project

survey area. This vegetation type is characterized as a disturbed non-native wetland with saturated soils in the northern extent transitioning into an upland habitat in the southern extent of this vegetation type near Pomona-Rincon Road. The vegetation within this area is characterized by the dominance of poison hemlock (*Conium maculatum*) intermixed with other non-native herbaceous species such as short-pod mustard, black mustard, cheeseweed mallow, and grass species.

3.3.9 Ruderal Disturbed

The Ruderal Disturbed land use type consists of areas adjacent and abutting the Developed Lands land use type and have been subjected to repeated disturbance resulting in a landscape with barren soils. This land use type makes up approximately 4.33 acres within the Project survey area. The ruderal disturbed areas within the Project area often have sparce vegetation dominated by opportunistic species, known as "ruderal" species, that are well adapted to harsh or disturbed conditions. The Ruderal Disturbed areas of the Project area are generally located along Pomona-Rincon Road and the medians within Euclid Avenue ROW near the northern extent of the Project area.

3.3.10 Southern Cottonwood-Willow Riparian Forest

The Southern Cottonwood-Willow Riparian Forest vegetation type primarily occurs around Chino Creek and extends down the eastern edge of Euclid Avenue. This vegetation type makes up approximately 12.82 acres within the Project survey area. The vegetation type habitat is characterized as a riparian forest wetland with hydrological connections to Chino Creek. The vegetation within this habitat is characterized by the dominance of the Goodding's black willow (*Salix gooddingii*) intermixed with species including ash, cottonwood, eucalyptus species and other willow species. This habitat is stratified with sparce and very intermittent eucalyptus species making up a tall emergent layer, willows, ash, and cottonwood species making up a dense canopy, with few shrubs, herbaceous, and grasslike species making up the sub-canopy/understory and forest floor cover.

3.4 Plants Species Observed

A total of 75 plant species were observed and identified during the four biological resource assessments conducted within the Project's survey area. Of these 75 species 27 of them were native and 48 of them were non-native. A list of all the plant species observed during the field survey as well as further classification of those species can be found in Attachment 3 – Fauna/Flora Compendium.

3.5 Wildlife Species Observed

A total of 48 wildlife species were observed and identified during the four biological resource assessments conducted within the Project's survey area. The following sections break down the observed wildlife species by their respective taxonomic classifications.

3.5.1 Amphibians

No species status species of amphibians were observed during the Project's field surveys. The Project area offers suitable and potential habitat for amphibian species as the Project area contains areas of open water as well as areas intermittently flooded and retain pooled water for extended periods of time. The high levels of moisture within all the habitat types occurring within the Project survey area make the habitat suitable to support amphibian species. Two species of native amphibians, California toad (*Anaxyrus boreas halophilus*) and Baja California treefrog (*Pseudacris hypochondriaca*), were observed during surveys. However, the most frequently encountered amphibian during surveys was the invasive American bullfrog (*Lithobates catesbeiana*).

3.5.2 Avian Species

A total of 39 avian species were observed and identified during the site surveys conducted within the Project's survey area. The avian species observed included Anna's hummingbird (*Calypte anna*), American coot (*Fulica americana*), American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), Bewick's wren (*Thryomanes bewickii*), Black-necked stilt (*Himantopus mexicanus*), Black phoebe (*Sayornis nigricans*), Blue-gray gnatcatcher (*Polioptila caerulea*), Bullock's oriole (*Icterus bullockii*), Bushtit (*Psaltriparus minimus*), California scrub-jay (*Aphelocoma californica*), California towhee (*Pipilo crissalis*), Cinnamon teal (*Anas cyanoptera*), Common raven (*Corvus corax*), Common yellowthroat (*Geothlypis trichas*), European starling (*Sturnus vulgaris*), Great blue heron (*Ardea herodias*), House finch (*Carpodacus mexicanus*), House sparrow (*Passer domesticus*), House wren (*Troglodytes aedon*), Indigo bunting (*Passerina cyanea*), Killdeer (*Charadrius vociferus*), Least Bell's vireo (*Vireo bellii*), Mallard (*Anas platyrhynchos*), Mourning dove (*Zenaida macroura*), Nuttall's woodpecker (*Picoides nuttallii*), Red-shouldered hawk (*Buteo lineatus*), Red-tailed hawk (*Buteo jamaicensis*), Red-winged blackbird (*Agelaius phoeniceus*), Rock pigeon (*Columba livia*), Say's phoebe (*Sayornis saya*), Snowy egret (*Egretta thula*), Song sparrow (*Melospiza melodia*), Turkey vulture (*Cathartes aura*), Western kingbird (*Tyrannus verticalis*), White-faced ibis (*Plegadis chihi*), Yellow warbler (*Setophaga petechia*), Yellow-breasted chat (*Icteria virens),* Yellow-rumped warbler (*Setophaga coronata*). These 39 avian species were identified during the field surveys by visual observation as well as by auditory recognition of the species individual calls. Three species of special status were identified: the Federally and State endangered least Bell's vireo, and the species of special concern, yellow warbler and yellow-breasted chat.

3.5.3 Crustaceans

Two crustacean species were observed during the site surveys conducted within the Project's survey area: crayfish (*Procambarus clarkii*) and Asian clam (*Corbicula fluminea*). Both living and deceased individuals of this species were observed within the Project survey area. The Project area offers suitable habitat for crustaceans, as it includes areas of open water as well as areas intermittently flooded and retain pooled water for extended periods of time.

3.5.4 Fish Species

No special status or native fishes were observed during surveys. Nine species of non-native and invasive fishes were observed in the Project's survey area: western mosquitofish (*Gambusia affinis*), green sunfish (*Lepomis cyanellus*), sailfin molly (*Poecilia latipinna*), largemouth bass (*Micropterus salmoides*), spotted bass (*Micropterus punctatus*), bluegill (*Lepomis macrochirus*), common carp (*Cyprinus carpio*), inland silverside (*Medinia beryllina*) and yellow bullhead (*Ameirus natalis*).

3.5.5 Insect Species

Four insect species were observed and identified during four biological resource assessments conducted within the Project's survey area. The insect species included, honey bee (*Apis mellifera*), winged pincher bug (*orficula dentata*), orb weaver spiders (*Neoscona spp.*), and cabbage white butterfly (*Pieris rapae).* These species of insects were visually observed and identified.

3.5.6 Mammalian Species

Five mammalian species were observed and identified during site surveys: Coyote (Canis latrans), Common racoon (*Procyon lotor*), California ground squirrel (*Otospermophilus beecheyi*), pocket gopher (*Thomomys bottae*), and Wild boar (*Sus scrofa*). These species of mammals were visually identified by physical presence and signs of presence of, such as tracks and/or burrows with the mounding of dirt at the entrance.

3.5.7 Reptiles Species

Six species of reptiles were observed and identified during the site surveys conducted within the Project's survey area: Western fence lizard (*Sceloporus occidntalis*), Western side-blotched lizard (*Uta stansburiana elegans*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), California alligator lizard (*Elgaria multicarinata multicarinata*), Red-eared slider (*Trachemys scripta elegans*), and River cooter (*Pseudemys concinna*).

3.6 Nesting Birds

The project area provides a highly suitable nesting environment for a wide variety of bird species due to its diverse habitats. These include riparian forests, wetland patches, and non-native/disturbed areas, which can support species with varied nesting preferences and habitat needs. The presence of dense vegetation, tree stands, and grasslands supporting both ground and tree nesting species.

3.7 Special-Status Vegetation Communities

California Walnut Woodland

During the literature and desktop review of the Project area, California walnut woodland vegetation community was documented to occur within the vicinity of the Project area. The closest, CDFW CNDDB, documented occurrences of this vegetation community, within the *Prado Dam* and *Corona North* quadrangles, are located approximately 3.2 miles to the southwest of the Project area within the Chino Hills State Park.

California walnut woodland is designated by CNPS under the vegetation alliance naming conventions of *A Manual of California Vegetation Second Edition* as *Juglans californica* Forest and Woodland Alliance. *Juglans Californica* Woodland Alliance membership rules states "*Juglans californica* making up 50 percent or more of the relative cover in the tree canopy or 30 percent or more relative cover when *Quercus agrifolia* is present (Keeler-Wolf and Evens 2006)". This alliance is typically observed adjacent to perennial or ephemeral drainages, covering hillslopes, and present intermixed with upland habitat types especially along hillside draws. The association can also be found along riparian corridors. *Juglans californica* is additionally designated by USFWS as a "facultative" wetland indicator plant species listed on the *2020 National Wetland Plant Lis*t.

This special-status vegetation community was not observed within the Project survey area and does not have potential to occur within the Project area. While individuals of California black walnut were observed within the Project survey area, these individuals did not make up a large enough percentage of the overall vegetative canopy cover to qualify as this vegetation community.

Southern Cottonwood-Willow Riparian Forest

During the literature and desktop review of the Project area Southern Cottonwood-Willow Riparian Forest vegetation community was documented to occur within the vicinity of the Project area. The closest, CDFW CNDDB, documented occurrences of this vegetation community, within the *Prado Dam* and *Corona North* quadrangles, are documented to occur within the boundaries of the Project survey area.

Southern Cottonwood-Willow Riparian Forest is designated by CNPS under the vegetation alliance naming conventions of *A Manual of California Vegetation Second Edition* as *Populus fremontii – Fraxinus velutina – Salix gooddingii* Forest and Woodland alliance. *Populus fremontii – Fraxinus velutina – Salix gooddingii* Forest and Woodland Alliance membership rules states "*Populus fremontii* greater than 50 percent relative cover, or greater than 30 percent relative cover with *Acer negundo, Juglans,* and/or *Salix,* sometimes with *Populus* having as little as 5 percent absolute cover in riparian settings with a diverse mix of riparian

species (Sikes et al. 2023)". *Fraxinus velutina,* and *Salix gooddingii* are respectively designated by USFWS as "facultative" and "Facultative wet" wetland indicator plant species listed on the *2020 National Wetland Plant Lis*t.

This special-status vegetation community was observed within the Project survey area. The community is dominated by Goodding's black willow within the canopy, with a sparse presence of cottonwood and ash species. Within this habitat, this vegetation community is intermixed with non-dominant riparian wetland species making up the emergent, sub-canopy/understory, and forest floor strata. Notable species include eucalyptus, boxelder, willows, tamarisk, tree of heaven, mulefat, castor bean, California wild grape, California blackberry, and flatsedge. This habitat type is primarily located to the east and west of Euclid Avenue, where the roadway crosses through the Prado Basin, with a concentration along the banks and floodway of Chino Creek.

Southern Sycamore Alder Riparian Woodland

During the literature and desktop review of the Project area southern sycamore alder riparian woodland vegetation community was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrences of this vegetation community is located approximately 0.9 miles to the west of the Project area within the Chino Hills State Park. Southern sycamore alder riparian woodland is designated by CNPS under the vegetation alliance naming conventions of *A Manual of California Vegetation Second Edition* as *Platanus racemosa – quercus agrifolia* Woodland Alliance. *Platanus racemosa – quercus agrifolia* Woodland Alliance membership rules states "Platanus racemosa is greater than 30 percent relative cover in tree canopy; Quercus agrifolia, Salix species, or Populus fremontii may be co-dominant." (CNPS 2021). This alliance is typically observed adjacent to riverine habitats as well as occasionally in ephemeral drainages in upland areas such as hillside draws. The association can also be found along riparian corridors, canyons, and floodways.

This special-status vegetation community was not observed within the Project survey area and does not have potential to occur within the Project area. During the site surveys no individuals of California sycamore (*Platanus racemosa*) were observed within the Project area however, the few individuals observed on site were not located close to one another nor did they make up a large percentage of the overall vegetative canopy cover. Furthermore, the habitat types occurring within the Project survey area are not traditionally associated with those supporting California walnut woodland communities.

Southern Willow Scrub

During the literature and desktop review of the Project area southern willow scrub vegetation community was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrences of this vegetation community, within the *Prado Dam* and *Corona North* quadrangles, is located approximately 4.8 miles to the west of the Project area within the Chino Hills State Park. Southern willow scrub is designated by CNPS under the vegetation alliance naming conventions of *A Manual of California Vegetation Second Edition* as *Salix gooddingii – Salix laevigata* Forest and Woodland Alliance. *Salix gooddingii – Salix laevigata* Forest and Woodland Alliance *membership rules states* "*Salix gooddingii* is greater than 50 percent relative cover in the canopy; if other willows are present, willows may co-dominate and *S. gooddingii* greater than 30 percent relative cover in the canopy". This alliance is typically observed adjacent to riverine habitats and in habitats with ephemeral drainages in upland areas such as hillside draws. The association can also be found along riparian corridors, canyons, floodplains, and lake edges. *Salix gooddingii* and *Salix laevigata* are designated by USFWS as "facultative wet" wetland indicator plant species listed on the *2020 National Wetland Plant Lis*t (USDA 2020).

This special-status vegetation community was not observed within the Project survey area, as *Salix gooddingii* (Goodding's black willow), while present, did not constitute more than 50 percent relative

cover within the vegetation communities. As such, the community does not meet the criteria for special-status classification. The presence of *Salix gooddingii* indicates a potential for riparian habitat, but the composition of the community is insufficient to qualify as a special-status vegetation community.

3.8 Special-Status Plant Species

A total of thirteen (13) special-status plant species were recorded within the database search conducted on CNDDB database. Each of the thirteen special-status plant species documented to occur within the Project's vicinity were assessed for their individual probability of occurring within the limits of the Project area. Each assessment of the individual species took into consideration: if the Project area provided suitable habitat for the species, suitable soils types for the species, the environmental quality of the suitable habitat, the proximity of the documented occurrence of the species to the location of the Project area, and the date that the occurrence of the species was reported. The following criteria was used to determine what potential each species had to occur within the Project area:

- **Present On Site** – Known population occurrences of the species that are well documented and acknowledged by the Federal and State wildlife agencies and or local officials. Species that were observed and identified within the Project survey area during the biological resource assessment, biological habitat assessment, follow up survey, and or focused survey.
- **High Potential to Occur** – Habitat able to support the species is available onsite, meets the specified microhabitat requirements for the species, and is not subject to a level of disturbance that would prevent the species from occurring. The individual species has recently been documented to occur within the reasonable vicinity of the project site where the species could exist within the project extent or could feasibly spread to the suitable habitat that exists onsite.
- **Moderate Potential to Occur** – Limited habitat able to support the species is available onsite, suitable habitat that is subject to disturbance with a lower overall quality but still meets necessary requirements of the specified microhabitat. The individual species has recently been documented to occur within the reasonable vicinity of the project site where the species could exist within the project extent or could feasibly spread to the suitable habitat that exists onsite.
- **Low Potential to Occur** – Habitats able to support the species occurring on the project site are highly disturbed, limited in extent, or do not meet the requirements for suitable microhabitats. The species has not recently been documented to occur and or occurs outside of the reasonable vicinity of the project site.
- **Not Expected to Occur** – Habitats associated with the species and specific microhabitat requirements for the species do not occur within the project area. The individual species has not been recently documented to occur and was documented to occur outside of the vicinity of the project site.

Table 3 – *Special-Status Plant Species Potential to Occur*, below outlines the thirteen special-status plant species that have been documented to occur within the vicinity of the Project site and their individual potentials to occur onsite.

Table 3 – Special-Status Plant Species Potential to Occur	
Potential to Occur	Special-Status Plant Species
Species present onsite	No special-status plant species were observed within the Project area.
High potential to occur	Lucky Morning-Glory (*Calystegia felix)*
Moderate potential to occur	Smooth Tarplant (*Centromadia pungens ssp. laevis*), White Rabbit-Tobacco (*Pseudognaphalium leucocephalum*), Salt Spring Checkerbloom (*Sidalcea neomexicana*), and San Bernardino Aster (*Symphyotrichum defoliatum*)
Low potential to occur	Jokerst's Monardella (*Monardella australis ssp. jokerstii*)
Not expected to occur	Chapparral Sand-verbena (*Abronia villosa var. aurita*), Braunton's Milk-vetch (*Astragalus brauntonii*), Coulter's saltbush (*Atriplex coulteri*), Intermediate Mariposa-Lily (*Calochortus weedii var. intermedius*), Many Stemmed Dudleya (*Dudleya multicaulis*), Santa Ana River Woollystar (*Eriastrum densifolium ssp. sanctorum*), and Robinson's Peppergrass (*Lepidium virginicum var. robinsonii*)

Chaparral Sand-Verbena *(Abronia villosa var. aurita)*

During the literature and desktop review of the Project area chaparral sand-verbena (*Abronia villosa var. aurita*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 5 miles to the southwest and 5.5 miles to the southeast of the Project area. These documented occurrences of the species were observed and recorded in 1931 and 1914, respectively.

Chaparral sand-verbena is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: chaparral, coastal scrub, desert dunes. This species requires habitats with sandy soils at elevations between 245 and 5250 ft. AMLS.

The species is not expected to occur within the Project area. The Project area and survey area does not contain any suitable habitat to support the species and was not observed during any field surveys.

Braunton's Milk-Vetch (*Astragalus brauntonii*)

During the literature and desktop review of the Project area Braunton's milk-vetch (*Astragalus brauntonii*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 5.5 miles to the southwest and 4.5 miles to the south of the Project area. These documented occurrences of the species were both observed and recorded in 2010.

Chaparral sand-verbena is Federally listed as an endangered species. This species is typically associated

with the following habitat types: chaparral, coastal scrub, valley and foothill grasslands, and limestone derived soils. This species occupies habitats with sandy alkaline soils typically derived from sandstone containing calcium carbonate intermixed within the substrate. This species is known to occupy habitats disturbed by regular light fire regimes. This species occurs at elevations between 15 and 2100 ft. AMLS.

The species is not expected to occur within the Project area. The Project area and survey area does not contain any suitable habitat to support the species and was not observed during any field surveys.

Coulter's Saltbush (*Atriplex coulteri*)

During the literature and desktop review of the Project area Coulter's saltbush (*Atriplex coulteri*) was documented to occur within the vicinity of the Project area. The closest, CDFW CNDDB, documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 2 miles to the northwest of the Project area. This documented occurrence of the species was recorded in 1917.

Coulter's saltbush is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grasslands. This species requires habitats with soils typically composed of alkaline and or clay at elevations between 10 and 1510 ft. AMLS.

The species is not expected to occur within the Project area. The Project area and survey area does not contain any suitable habitat able to support the species and was not observed during any field surveys.

Intermediate Mariposa-lily (*Calochortus weedii var. intermedius*)

During the literature and desktop review of the Project area intermediate mariposa-lily (*Calochortus weedii var. intermedius*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 2.5 miles to the west of the Project area. This documented occurrence of the species was recorded in 2008.

Intermediate mariposa-lily is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: chaparral, coastal scrub, valley and foothill grasslands. This species requires habitats with rocky soils typically higher in calcium carbonate concentrations and at elevations between 345 and 2805 ft. AMLS.

The species is not expected to occur within the Project area. The Project area and survey area does not contain any suitable habitat able to support the species. This species was not observed during the biological assessment of the Project survey area.

Lucky Morning-Glory (*Calystegia felix*)

During the literature and desktop review of the Project area lucky morning-glory (*Calystegia felix*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is within the limits of the Project area. This documented occurrence of the species was recorded in 1917.

Lucky morning-glory is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: meadows, seeps, and riparian scrub. This species typically requires wetland habitats often with alkaline or loam soils. The wetland habitat associated with this species is alluvial soil deposits created by perennial or ephemeral flows. This species typically occurs at elevations between 100 and 705 ft. AMLS.

The species has a high potential to occur within the Project area. The Project area and survey area provides suitable habitat potentially able to support the species. Habitats within the Project survey area that could support this species include: the Curly Dock-Poison Hemlock Patch, Goodding's Black Willow-Eucalyptus Riparian Forest, Poison Hemlock Patch, and Southern Cottonwood-Willow Riparian Forest, however, this species was not observed during any of the site surveys for the Project.

Smooth Tarplant (*Centromadia pungens ssp. laevis*)

During the literature and desktop review of the Project area smooth tarplant (*Centromadia pungens ssp. laevis*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is within the limits of the Project area. This documented occurrence of the species was recorded in 1917.

Smooth tarplant is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: alkali playa, chenopod scrub, meadows, seeps, riparian woodland, valley and foothill grasslands, and wetlands. This species typically requires wetland habitats often with alkaline soils. This species typically occurs at elevations between 0 and 2100 ft. AMLS.

The species has a moderate potential to occur within the Project area. The Project area and survey area provides limited low-quality habitat potentially able to support the species. Habitats within the Project survey area that could support this species include: the Curly Dock-Poison Hemlock Patch, Goodding's Black Willow-Eucalyptus Riparian Forest, Non-Native Grassland, the Poison Hemlock Patch, and the Southern Cottonwood-Willow Riparian Forest. This species was not observed during site surveys of the Project.

Many-Stemmed Dudleya (*Dudleya multicaulis*)

During the literature and desktop review of the Project area many-stemmed dudleya (*Dudleya multicaulis*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 2.30 miles to the south and 2.70 miles to the south of the Project area. These documented occurrences of the species were both recorded in 1983.

Many-stemmed dudleya is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: chaparral, coastal scrub, valley and foothill grasslands. This species requires habitats with clay soils at elevations between 50 and 2590 ft. AMLS.

The species is not expected to occur within the Project area as the Project area and survey area contain no suitable habitat able to support the species and was not observed during the Project's site surveys.

Santa Ana River Woollystar (*Eriastrum densifolium ssp. sanctorum*)

During the literature and desktop review of the Project area Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 5.50 miles to the southwest of the Project area. This documented occurrence of the species was recorded in 1927.

Santa Ana River woollystar is listed by Federal and State wildlife agencies as an endangered species. This species is typically associated with the following habitat types: chaparral and coastal scrub. This species requires habitats with gravelly and or sandy soils types at elevations between 300 and 2000 ft. AMLS.

The species is not expected to occur within the Project area as the Project area and survey area contain no suitable habitat able to support the species and was not observed during the Project's site surveys.

Robinson's Pepper-Grass (*Lepidium virginicum var. robinsonii*)

During the literature and desktop review of the Project area Robinson's pepper-grass (*Lepidium virginicum var. robinsonii*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 3.70 miles to the south and 3.5 miles to the southeast of the Project area. These documented occurrences of the species were recorded in 1985 and 2010, respectively.

Robinson's pepper-grass is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: Chaparral and Coastal scrub. This species requires habitats with sandy soils at elevations between 5 and 2905 ft. AMLS.

The species is not expected to occur within the Project area as the Project area and survey area contain no suitable habitat able to support the species and was not observed during the Project's site surveys.

Jokerst's Monardella (*Monardella australis ssp. jokerstii*)

During the literature and desktop review of the Project area Jokerst's monardella (*Monardella australis ssp. jokerstii*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located within the limits of the Project area. This documented occurrence of the species was recorded in 1952.

Jokerst's monardella is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: Chaparral and lower montane coniferous forest. This species requires habitats with alluvial terraces, scree slopes, talus, and washes at elevations between 4430 and 5840 ft. AMLS.

This species has a low potential to occur within the Project area, as it was documented within the Project limits in 1952. However, the Project and survey areas do not contain suitable habitat to support the species. Specifically, the project area lacks chaparral or lower montane coniferous forest vegetation communities, which could potentially support the species. Additionally, the species was not observed during the site surveys conducted for the project.

White Rabbit-Tobacco (*Pseudognaphalium leucocephalum*)

During the literature and desktop review of the Project area white rabbit-tobacco (*Pseudognaphalium leucocephalum*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 4.20 miles to the south of the Project area. This documented occurrence of the species was recorded in 1928.

White rabbit-tobacco is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: chaparral, cismontane woodland, coastal scrub, and riparian woodland. This species requires habitats with sandy soils that area at elevations between 0 and 6890 ft. AMLS.

The species has a moderate potential to occur within the Project area given the existing riparian woodland habitat. Habitats within the Project survey area that could support this species include: Goodding's Black Willow-Eucalyptus Riparian Forest, Non-Native Grassland, the Poison Hemlock Patch, and the Southern Cottonwood-Willow Riparian Forest.

Salt Spring Checkerbloom (*Sidalcea neomexicana*)

During the literature and desktop review of the Project area salt spring checkerbloom (*Sidalcea neomexicana*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located within the limits of the Project area. This documented occurrence of the species were recorded in 1917.

Salt spring checkerbloom is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: alkali playa, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and wetland. This species requires habitats with alkaline or mesic soils that are at elevations between 50 and 5020 ft. AMLS.

The species has a moderate potential to occur within the Project area. The Project area and survey area provides suitable habitat potentially able to support the species. Habitats within the Project survey area that could support this species include: the Curly Dock-Poison Hemlock Patch, Goodding's Black Willow-Eucalyptus Riparian Forest, the Poison Hemlock Patch, and the Southern Cottonwood-Willow Riparian Forest. This species was not observed during the site surveys of the Project survey area.

San Bernardino Aster (*Symphyotrichum defoliatum*)

During the literature and desktop review of the Project area San Bernardino aster (*Symphyotrichum defoliatum*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 2.25 miles to the north of the Project area. This documented occurrence of the species was recorded in 1928.

San Bernardino aster is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: cismontane woodland, coastal scrub, lower montane coniferous forest, marsh, swamp, meadow, seep, valley and foothill grasslands. This species requires habitats with ephemeral or perennial water sources at elevations between 5 and 6695 ft. AMLS.

The species has a Moderate Potential within the Project area as the Project area and survey area contain suitable wetland habitat able to support the species.

3.9 Special-Status Wildlife Species

A total of thirty-six (36) special-status wildlife species were documented on the CNDDB database, to occur within the Project area's vicinity. Each of the thirty-six special-status wildlife species documented to occur within the Project's vicinity were assessed for their individual probability of occurring within the limits of the Project area. Each assessment of the individual species took into consideration: if the Project area provided suitable habitat for the species, the environmental quality of the suitable habitat, the proximity of the documented occurrence of the species to the location of the Project area, and the date that the occurrence of the species was reported. The following criteria was used to determine what potential each species had to occur within the Project area:

- **Present On Site** – Known population occurrences of the species that are well documented and acknowledged by the Federal and State wildlife agencies and or local officials. Species that were observed and identified within the Project survey area during the biological resource assessment, biological habitat assessment, follow up survey, and or focused survey.
- **High Potential to Occur** – Habitat able to support the species is available onsite and is not subject to a level of disturbance that would prevent the species from occurring. The individual species has recently been documented to occur within the reasonable vicinity of the project site where the

species could exist within the project extent or could feasibly spread to the suitable habitat that exists onsite.

- **Moderate Potential to Occur** – Limited habitat able to support the species is available onsite, suitable habitat that is subject to disturbance with a lower overall quality. The individual species has recently been documented to occur within the reasonable vicinity of the project site where the species could exist within the project extent or could feasibly spread to the suitable habitat that exists onsite.
- **Low Potential to Occur** – Habitats able to support the species occurring on the project site are highly disturbed, limited in extent. The species has not recently been documented to occur and or occurs outside of the reasonable vicinity of the project site.
- **Not Expected to Occur** – Habitats associated with the species requirements for the species do not occur within the project area. The individual species has not been recently documented to occur and was documented to occur outside of the vicinity of the project site.

Table 4 – *Special-Status Wildlife Species Potential to Occur*, below outlines the thirty-five special-status wildlife species that have been documented to occur within the vicinity of the Project site and their individual potentials to occur onsite.

Table 4 – Special-Status Wildlife Species Potential to Occur

Potential to Occur	Special-Status Wildlife Species
Species present onsite.	Least Bell's vireo (*Vireo bellii pusillus*), Yellow-breasted chat (*Icteria virens*), and Yellow warbler (*Setophaga petechia*)
High potential to occur.	Cooper's hawk (*Accipiter cooperii*), Long-eared owl (*Asio otus*), Western yellow-billed cuckoo (*Coccyzus americanus*), White-tailed kite (*Elanus leucurus*), Southwestern willow flycatcher (*Empidonax traillii extimus*), and South Coast gartersnake (*Thamnophis sirtalis infernalis*)
Moderate potential to occur.	Golden eagle (*Aquila chrysaetos*), Burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Yellow rail (*Coturnicops noveboracensis*), California black rail (*Laterallus jamaicensis coturniculus*), Crotch's bumble bee (*Bombus crotchii*), Western yellow bat (*Lasiurus xanthinus*), and Southwestern pond turtle (*Actinemys pallida*)
Low potential to occur.	Western spadefoot (*Spea hammondii*), Tricolored blackbird (*Agelaius tricolor*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), American bumble bee (*Bombus pensylvanicus*), Western mastiff bat (*Eumops perotis*), Southern California legless lizard (*Anniella stebbinsi*), Coast horned lizard (*Phrynosoma blainvillii*), and Arroyo chub (*Gila orcuttii*)
Not expected to occur.	Grasshopper sparrow (*Ammodramus savannarum*), Bell's sparrow (*Artemisiospiza belli*), Coastal cactus wren (*Campylorhynchus brunneicapillus*), Coastal California gnatcatcher (*Polioptila californica californica*), Santa Ana sucker (*Catostomus santaanae*), Southern California steelhead (*Oncorhynchus mykiss*), Stephen's kangaroo rat

Table 4 – Special-Status Wildlife Species Potential to Occur	
Potential to Occur	Special-Status Wildlife Species
	(*Dipodomys stephensi*), Pocketed free-tailed bat (*Nyctinomops femorosaccus*), Orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego banded gecko (*Coleonyx variegatus abbotti*), Red-diamond rattlesnake (*Crotalus ruber*), and Coast horned lizard (*Phrynosoma blainvillii*).

3.9.1 Amphibians

Western Spadefoot Toad (*Spea hammondii*)

During the literature and desktop review of the Project area one special-status amphibian species, Western Spadefoot toad (*Spea hammondii*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrences of this species, within the *Prado Dam* and *Corona North* quadrangles, are located approximately 2.4 miles to the south and 2.7 miles to the west of the Project area.

Western spadefoot toad is a species of special concern and has been proposed as a threatened species by USFW. This species is typically associated with the following habitat types: Cismontane woodland, Coastal scrub, Valley and foothill grasslands, Vernal pool, Wetlands, and sandy washes. This species inhabits subterranean burrows dug using the "spade" located on their hind-legs influencing habitat preferences for areas with non-compacted, grainy, and cohesive soils characterized by fine-grain gravelly or sandy in description. The species live most of their lives within their subterranean burrows typically emerging during rain events occurring between the months of October and May. The species' ability to burrow into the soil and remain within their burrows for extended periods of time allows the species to survive hot arid climates during the summer months in areas and habitat typically unsuitable for other species of amphibians. During the species' emergence from subterranean dormancy the species will forage for insects as well as breed in small ephemeral pools or slow-moving ephemeral streams. Breeding pool habitat for the species must be free from predatory aquatic species such as American bullfrogs, crayfish, turtles, and large fish species for successful reproduction.

The species has a low potential to occur within the project area due to the presence of American bullfrogs, crayfish, and turtles, all of which are known predators of the Western spadefoot. This species was not observed during the focused surveys for amphibians.

3.9.2 Avian Species

Cooper's Hawk (*Acipiter cooperii*)

During the literature and desktop review of the Project area Cooper's hawk (*Acipiter cooperii*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 6 miles to the northwest of the Project area and was documented in 2012.

Cooper's hawk is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: cismontane woodland, riparian forest, and riparian woodland. This species requires habitats where dense woodlands occur in sparce patches and groves as well as the edges of woodland habitat near the transitional zones. This

species of hawk needs habitat with both dense woodland areas as well as open areas. Dense woodland areas provide suitable nesting habitat for the species reproductive success as well as suitable foraging habitat. The transitional zones between open areas and densely vegetated areas also provide suitable foraging habitat for the species. These two habitat types are important to Cooper's hawk's foraging behaviors as the species is known to hunt for prey consisting primarily of small birds.

The species has a high potential to occur within the project area due to the presence of high-quality, suitable habitats that can support the nesting and foraging needs of Cooper's hawk. Suitable nesting habitats within the project and survey areas include the Cottonwood Stands, the Goodding's Black Willow-Eucalyptus Riparian Forest, and the Southern Cottonwood-Willow Riparian Forests. Foraging habitats in the area include Agricultural Land, Cottonwood Stands, Curly Dock-Poison Hemlock Patches, Goodding's Black Willow-Eucalyptus Riparian Forests, Non-Native Grasslands, Poison Hemlock Patches, and Southern Cottonwood-Willow Riparian Forests. Although these habitats are present, Cooper's hawk was not observed during the biological assessment of the project survey area.

Tricolored Blackbird (*Agelaius tricolor*)

During the literature and desktop review of the Project area Tricolored Blackbird (*Agelaius tricolor*) was documented to occur within the vicinity of the Project area. The closest three CNDDB documented occurrence of this species occurring within the *Prado Dam* and *Corona North* quadrangles are located approximately 2 miles to the north, 2.5 miles to the northeast, and 3 miles to the northwest of the Project area and were documented in 2014, 1994, and 1952 respectively.

Tricolored blackbird is listed as threatened by CDFW and subject to protections under CESA. Tricolored blackbird is not listed at the Federal level by USFW. This species is typically associated with the following habitat types: cismontane woodland, riparian forest, and riparian woodland. This species requires habitats within the transitional margins of densely vegetated riparian forest/woodland areas and or marshes/wetlands without a canopy. These habitats provide suitable foraging and nesting habitat for the species. These habitat types are important to tricolored black bird's foraging behaviors as the species is known to hunt for prey consisting primarily of insects.

The species has a low potential to occur within the Project area. The Project area and survey area contain limited low quality suitable habitat able to support the nesting and foraging needs of tricolored blackbird, however, no colonies were observed during the site surveys.

Southern California Rufos-Crowned Sparrow (*Aimophila ruficeps canescens*)

During the literature and desktop review of the Project area, Southern California Rufous-Crowned Sparrow (*Aimophila ruficeps canescens)* was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species occurring within the *Prado Dam* and *Corona North* quadrangles, is located approximately 3.75 miles to the south of the Project area and was documented in 1991.

Southern California rufous-crowned sparrow is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: chaparral and coastal scrub. This species requires habitats with sparce upland vegetation such as hillsides with vegetation consisting of grasses, shrubs, and rock outcroppings. Chaparral and coastal scrub areas provide suitable nesting habitat for the species reproductive success as well as suitable foraging habitat. These habitat types are important to southern California rufous-crowned sparrow's foraging behaviors as the species is known to be an omnivore with diets consisting of insects and seeds.

This species has a low potential to occur within the Project area. The Project area and survey area contain limited low quality suitable habitat able to support the nesting and foraging needs of southern California

rufous-crowned sparrow. The suitable nesting habitat for southern California rufous-crowned sparrow within the Project area and survey area consists only of the Non-Native Grassland habitat type. The suitable foraging habitat for southern California rufous-crowned sparrow within the Project area and survey area consists of the following habitats: Agricultural Land, The Curly Dock-Poison Hemlock Patch, Non-Native Grassland, and the Poison Hemlock Patch. This species was not observed during the site survey of the Project survey area.

Grasshopper Sparrow (*Ammodramus savannarum*)

During the literature and desktop review of the Project area, grasshopper sparrow (*Ammodramus savannarum*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species occurring within the *Prado Dam* and *Corona North* quadrangles is located approximately 4.5 miles to the southwest of the Project area and was documented in 2001.

Grasshopper sparrow is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with valley and foothill grassland habitat types. This species requires habitats with dense grass vegetation intermixed with forbs and shrubs particularly undisturbed native grasslands. Valley and foothill grassland areas provide suitable nesting habitat for the species reproductive success as well as suitable foraging habitat. These habitat types are important to grasshopper sparrow's foraging behaviors as the species is known to primarily be an insectivore during the summer months with diets consisting of mostly seeds during the winter months.

The species is not expected to occur within the Project area. The disturbed Non-Native Grassland that is present within the Project survey area is of very low quality as it is dominated primarily by non-native grasses without many forbs and shrubs intermixed within the habitat. This species is typically associated with coastal scrub habitats when the species occurs in Southern California and this habitat type is not present within the Project area. This species was not observed during the site survey.

Golden Eagle (*Aquila chrysaetos*)

During the literature and desktop review of the Project area golden eagle (*Aquila chrysaetos*) was documented to occur within the vicinity of the Project area. The two closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles are located approximately 3.5 miles to the west and 3.5 miles to the southwest of the Project area and were documented in 1998 and 1996 respectively.

Golden eagle is fully protected avian species under both Federal law with the *Bald and Golden Eagle Protection Act* and the *Migratory Bird Treaty Act* as well as on the State level being protected under CESA; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinon & juniper woodlands, upper montane coniferous forest, valley & foothill grassland. This species can occur in multiple and varying habitat types and have large foraging ranges. This species of eagle needs multiple habitat types within the proximity to meet foraging and reproductive needs. Suitable habitats that are commonly associated with the species include areas ranging from rolling foothills to steep rocky mountain terrains. Woodland areas with tall trees, mountain cliffs, and outcroppings provide suitable nesting habitat for the species reproductive success. Valley and foothill grasslands and arid plateaus provide suitable foraging habitat for the species. These two habitat types are important to golden eagle's foraging behaviors as the species is known to hunt for prey consisting primarily of small mammals. However, this species is also known to prey upon larger mammals as well as eating carrion.

The species has a moderate potential to occur within the Project area. The Project area and survey area moderate quality suitable habitat able to support the foraging needs of golden eagle. The Project area includes limited suitable nesting habitat for golden eagle. This species was not observed during the site surveys for the Project.

Bell's sparrow (*Artemisiospiza belli belli*)

During the literature and desktop review of the Project area Bell's sparrow (Artemisiospiza belli belli) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 10 miles to the southeast of the Project area and was documented in 1999.

Bell's sparrow is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with chaparral and coastal scrub habitat types. This species requires chaparral habitats that are sparsely vegetated with open areas within the habitat. Chaparral and coastal scrub areas provide suitable nesting habitat for the species reproductive success as well as suitable foraging habitat. These habitat types are important to grasshopper sparrow's foraging behaviors as the species is known to primarily be an insectivore during the summer months with diets consisting of mostly seeds during the winter months.

The species is not expected to occur within the Project area. The Project area and survey area does not contain suitable habitat able to support the nesting and foraging needs of Bell's sparrow. This species was not observed during the site survey for the Project.

Long-Eared Owl (*Athene cuniclaria*)

During the literature and desktop review of the Project area long-eared owl (*Athene cuniclaria*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 4.25 miles to the west of the Project area and was documented in 1925.

Long-eared owl is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: cismontane woodland, Great Basin scrub, riparian forest, riparian woodlands. This species utilizes dense woodlands, live oak thickets and riparian forests for nesting and roosting, typically near the transitional margins of the habitat near open areas such as grasslands, meadows, or shrublands. Open habitats associated with the species are utilized for foraging activities of the species which primarily prey upon small mammals.

The species has a high potential to occur within the Project area. The Project area and survey area contain high-quality suitable habitat able to support both the foraging and nesting needs of long-eared owl. The Project area includes suitable nesting habitat for long-eared owl consisting of the Cottonwood Stand, the Goodding's Black Willow-Eucalyptus Riparian Forest, and the Southern Cottonwood-Willow Riparian Forest. The Project area includes suitable foraging habitat for long-eared owl consisting of the Agricultural Land, the Curly Dock-Poison Hemlock Patch, the Non-Native Grassland, and the Poison Hemlock Patch habitat types. This species was not observed during the site survey of the Project.

Burrowing Owl (*Athene Cunicularia*)

During the literature and desktop review of the Project area burrowing owl (*Athene Cunicularia*) was documented to occur within the vicinity of the Project area. Twenty-five occurrences of burrowing owl occur within the *Prado Dam* and *Corona North* quadrangles that make up the vicinity of the Project area. Seventeen of the twenty-five occurrences are the closest in proximity to the Project area and are located approximately 3 miles to the northwest, 1.3 miles to the northwest, 2.6 miles to the north, 1 mile to the

north, 0.5 of a mile to the north, 1.5 miles to the northeast, 1.5 miles to the northeast, 3 miles to the northeast, 1 mile to the east, 1.3 miles to the east, 1.6 miles to the east, 2.2 miles to the east, 2.3 miles to the east, 2.5 miles to the east, 2.8 miles to the east, 3 miles to the east, and 3.3 miles to the southeast of the Project area. These seventeen occurrences were respectively documented in 1988, 2007, 2006, 2016, 2006, 2006, 2006, 2006, 2006, 2006, 2006, 2006, 2006, 2006, 2007, 2007, 2006, and 1986.

Burrowing owl is currently under review by the California Fish and Game Commission for listing as either threatened or endangered. As a candidate species burrowing owl is fully protected under CESA throughout the species candidacy period. Burrowing owls are not listed at the Federal level by USFW. This species is typically associated with the following habitat types: Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojave Desert scrub, Sonoran Desert scrub, valley and foothill grasslands and shrublands. This species utilizes small mammal burrows as well as anthropogenically created overhangs for nesting often in slightly slopped areas that are within larger flat and open habitats. Foraging activities typically occur within the vicinity of the burrow with prey consisting of insects as well as a wide variety of vertebrates from small mammals to reptiles.

The species has a moderate potential to occur within the project area. The Project area and survey area contains limited suitable habitat able to support both the nesting and foraging needs of burrowing owls. The Project area includes suitable nesting habitat for the species consisting of the Non-Native Grassland. The Project area includes suitable foraging habitat for the species consisting of the Non-Native Grassland. This species was not observed during the site survey for the Project.

Swainson's Hawk (*Buteo swainsoni*)

During the literature and desktop review of the Project area Swainson's hawk (*Buteo swainsoni*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 2 miles to the southeast of the Project area and was documented in 1919.

Swainson's hawk is a species that is listed as threatened by CDFW and subject to protection under CESA. Swainson's hawk is not listed at the Federal level by USFW. This species is typically associated with the following habitat types: Great Basin grasslands, riparian forest, riparian woodland, valley and open desert, grassland, or cropland containing scattered, large trees or small groves. This species utilizes dense woodlands, or small stands of large trees for nesting and roosting, typically near the transitional margins of the habitat near open areas such as Agricultural Land and grasslands. Open habitats associated with the species are utilized for foraging activities of the species which primarily prey upon insects outside of the breeding season and primarily prey upon small mammals during the breeding season.

The species has a moderate potential to occur within the Project area. The Project area and survey area contain high quality suitable habitat able to support both the foraging and nesting needs of Swainson's hawk. The Project area includes suitable nesting habitat consisting of the Cottonwood Stand, the Goodding's Black Willow-Eucalyptus Riparian Forest, and the Southern Cottonwood-Willow Riparian Forest. The Project area includes suitable foraging habitat for Swainson's hawk consisting of the Agricultural Land, the Curly Dock-Poison Hemlock Patch, the Non-Native Grassland, and the Poison Hemlock Patch habitat types. This species was not observed during site surveys for the Project.

Coastal Catus Wren (*Campylorhynchus brunneicapillus sandiegensis*)

During the literature and desktop review of the Project area coastal catus wren (*Campylorhynchus brunneicapillus sandiegensis*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 4.5 miles to the southwest of the Project area and was documented in 1995.

Coastal cactus wren is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the coastal scrub habitats that are within deserts or other arid regions. The species prefers terrain with thickets, patches, or tracts of larger, branching cacti, stiff-twigged, thorny shrubs, and small trees for nesting a foraging. This species primarily preys upon insects as they forage on the ground and through thickets of vegetation.

The species is not expected to occur within the Project area. The Project area and survey area does not contain suitable habitat able to support the nesting and foraging needs of coastal cactus wren. This species was not observed during the site surveys for the Project.

Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)

During the literature and desktop review of the Project area western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) was documented to occur within the vicinity of the Project area. The four closest CDFW CNDDB, documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 0.3 of a mile to the east, 1.5 miles to the southeast, 2 miles to the northwest, and 3.8 miles to the west of the Project site and were documented in 1991, 2001, 1931, and 1986 respectively.

Western yellow-billed cuckoo is a species that is listed, on both the Federal and State levels, as endangered by CDFW and threatened by USFWS. Due to the species designated listing status, yellow-billed cuckoo is subject to protection under CESA and the ESA. This species is typically associated with dense and mature riparian forest habitats and prefers riparian habitat with different strata including a dense to open canopy, dense sub-canopy, and dense understory. The dense sub-canopy and understory is often abutting or adjacent to hydrological features such as slow moving streams, backwaters, marshes, wetland, or seeps. Willow trees within the canopy or sub-canopy and directly adjacent streams make up typical suitable nesting habitat for the species. Yellow-billed cuckoos are insectivores that primarily prey on caterpillars that occupy the dense understories of the riparian habitat.

This species has a High Potential to occur within the Project area. The Project area and survey area contains suitable high-quality habitat able to support the species. Historically, populations of this species were found in close proximity to the Project area, however, the species has not been observed in the recent past. This recent extirpation of the species from the suitable habitat that occurs within the Prado Basin is not well understood. This species was not observed during the Projects focused avian surveys.

Yellow Rail (*Coturnicops noveboracensis*)

During the literature and desktop review of the Project area yellow rail (*Coturnicops noveboracensis*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 1.20 miles to the west of the Project area and was documented in 1914.

Yellow rail is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: shallow freshwater or brackish marshes, meadows, and seeps. This species utilizes densely vegetated marshes, meadows, and seeps for nesting and foraging behaviors. This species utilizes shorter vegetation, consisting of sedges and rushes, within unflooded areas of marshes and seeps for nesting. This species foraging habitat consists of marshes and seeps with sparce to dense vegetation that is slightly flooded with shallow water. These areas support yellow rail's varied diet of aquatic invertebrates, providing prey such as crustations, insects, and earthworms.

The species has a moderate potential to occur within the Project area. The Project area does not contain suitable habitat for this species whereas, the area adjacent to the Project area within the survey area

contains high-quality suitable habitat able to support both the foraging and nesting needs of yellow rail within Prado Basin. This species was not observed during the site survey for the Project.

White-Tailed Kite (*Elanus leucurus*)

During the literature and desktop review of the Project area white-tailed kite (*Elanus leucurus*) was documented to occur within the vicinity of the Project area. The three closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles, are located approximately 500 ft to the east, 0.3 of a mile to the west, and 4.5 miles northwest of the Project area all three of these occurrences were recorded in 2009.

White-tailed kite is fully protected avian species on the State level as a CDFW fully protected species; however, the species is not listed by the Federal or State wildlife agencies. This species is typically associated with the following habitat types: cismontane woodland, marshes, swamps, riparian woodlands, valley and foothill grasslands, and wetlands. This species requires habitats where dense woodlands occur in sparce patches or groves as well as the edges of woodland habitat near transitional zones. This species needs habitat with both woodland and open areas for its nesting, roosting, and foraging behaviors. Woodland areas provide suitable nesting habitat for the species roosting and nesting for reproductive success. The open areas of grasslands and lowlands provide suitable foraging habitat for the species. The open habitat types are important to white-tailed kite's foraging behaviors as the species prey consisting primarily of small mammals.

This species has a high potential to occur within the Project vicinity. The Project area and survey area contain high quality suitable habitat able to support the nesting and foraging needs of white-tailed kite. The suitable nesting habitat for white-tailed kite within the Project area and survey area consists of the following habitats: the Cottonwood Stand, Goodding's Black Willow-Eucalyptus and Southern Cottonwood-Willow Riparian Forest. This species was not observed during the site survey for the Project.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

During the literature and desktop review of the Project area southwestern willow flycatcher (*Empidonax traillii extimus*) was documented to occur within the vicinity of the Project area. The three closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles are located approximately 2.0 miles to the southeast, 2.0 miles to the southeast, and 3.0 miles to the southeast of the Project area and were documented in 1991, 2004, and 1990 respectively.

Southwestern willow flycatcher is an endangered species designated by both CDFW and USFW on the State and Federal level. As a State and Federally designated species the species is protected under both CESA and the ESA. This species is typically associated with dense riparian forest, riparian thickets, willow stands, wet meadows, and backwaters. While this species is commonly associated with riparian habitat, southwestern willow flycatchers have been known to occupy drier habitats with dense sub-canopy, and dense understory. Willow trees, box elders within the canopy or hawthorn, ferns within the sub-canopy make up typical suitable nesting habitat for the species. Suitable foraging habitat for the species consists of open areas with perches over areas of open or standing water. Southwestern willow flycatcher are insectivores that primarily prey upon winged insects while in flight.

This species has a High Potential to occur within the Project area. The Project area and survey area contains suitable high-quality habitat able to support the species. Historically, populations of this species were found in close proximity to the Project area, however, the species has not been observed in the recent past. This recent extirpation of the species from the suitable habitat that still occurs within the Prado Basin is not well understood. Habitats that occur onsite able to support the nesting and foraging needs of this species include: the Cottonwood Stand, the Goodding's Black Willow-Eucalyptus Riparian Forest, and the

Southern Cottonwood-Willow Riparian Forest. This species was not observed during the site surveys for the Project.

Yellow-Breasted Chat (*Icteria virens*)

During the literature and desktop review of the Project area yellow-breasted chat (*Icteria virens*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 2.0 miles to the southeast of the Project area and was documented in 2005.

Yellow-breasted chat is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: dense riparian forest, riparian thickets, willow stands, and brambles. This species prefers habitats with a dense understory of brambles or vines where the species will forage and nest. Yellow-breasted chat are omnivores that primarily prey upon insects while opportunistically eating fruits.

This species is Present within the Project site and was observed during focused avian surveys for the Project. The Project area and survey area contain high quality suitable habitat able to support the nesting and foraging needs of yellow-breasted chat. The suitable nesting and foraging habitat for yellow-breasted chat within the Project area and survey area consists of the following habitats: the Cottonwood Stand, Goodding's Black-Willow Eucalyptus and Southern Cottonwood-Willow Riparian Forest.

California Black Rail (*Lateralus jamaicensis cotumiculus*)

During the literature and desktop review of the Project area California black rail (*Lateralus jamaicensis cotumiculus*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 0.2 miles to the southeast of the Project area and was documented in 1931.

California black rail is a species that is listed as threatened by CDFW and subject to protection under CESA. California black rail is not listed at the Federal level by USFW. This species is typically associated with the following habitat types: shallow freshwater or brackish marshes, salt marshes, meadows, seeps, swamps. This species utilizes the transitional zones of emergent saline or brackish wetlands for nesting and foraging behaviors. This species utilizes shorter vegetation, consisting of pickleweed, grasses, and rushes, within unflooded areas of marshes nesting. This species foraging habitat consists of the transitional zones of marches with dense vegetation that is slightly flooded with shallow water, occasionally foraging deeper into the marsh. These areas support California black rail's insectivore diets consisting of small beetles, isopods, and snails.

The species has a Moderate Potential to occur within the Project area. The Project area does not contain suitable habitat for this species whereas, the area adjacent to the Project area within the survey area contains high-quality suitable habitat able to support both the foraging and nesting needs of yellow rail. This species was not observed during site surveys for the Project site.

Coastal California Gnatcatcher (*Polioptila californica californica*)

During the literature and desktop review of the Project area coastal California gnatcatcher (*Polioptila californica californica*) was documented to occur within the vicinity of the Project area. Twenty occurrences of coastal California gnatcatcher occur within the *Prado Dam* and *Corona North* quadrangles that make up the vicinity of the Project area. Eight of the twenty occurrences are the closest in proximity to the Project area and are located approximately 1 mile to the south, 2.5 miles to the south, 1.2 miles to the west, 1.2 miles to the west, 1.7 miles to the west, 2.5 miles to the west, 2.1 miles to the northwest,

and 2.5 miles to the northwest of the Project area. These eight occurrences were respectively documented in 2019, 2024, 2022, 2022, 2018, 2005, 2017, and 2024.

Coastal California gnatcatcher is a species that is listed as threatened by USFW and subject to protection under CESA. Coastal California gnatcatcher is not listed at the State level by CDFW. This species is typically associated with arid washes, coastal bluff scrub, coastal scrub, and mesa habitat types. This species utilizes habitats that are vegetated with species of brittlebush, buckwheat, coastal sage, and prickly pear. This species prefers patches of shrub thickets interspersed throughout open habitat. The vegetated areas of scrub vegetation make up the species nesting and foraging habitat. Coastal California gnatcatchers are insectivores with diets consisting of small insects such as beetles, spiders, and true bugs.

The species is not expected to occur within the Project area. This species is typically associated with coastal scrub habitats which does not occur within the Project area.

Yellow Warbler (*Setophaga petechia*)

During the literature and desktop review of the Project area yellow warbler (*Setophaga petechia*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 3 miles to the east of the Project area and was documented in 2002.

Yellow warbler is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: riparian forest, riparian scrub, riparian woodland. This species prefers riparian habitats with open to moderately dense vegetation often occurring in areas that are immature, such as riparian scrub, or areas regrowing after a disturbance event. This species nests within small trees or bushes that make up the sub-canopy to canopy. Yellow warblers are insectivores foraging within the sub-canopy for insects such as beetles, caterpillars, and true bugs.

This species is Present within the Project vicinity and was observed during focused avian surveys for the Project. The Project area and survey area contain high quality suitable habitat that support the nesting and foraging needs of yellow warbler. The suitable nesting and foraging habitat for yellow-breasted chat within the Project area and survey area consists of the following habitats: the Cottonwood Stand, Goodding's Black Willow-Eucalyptus and Southern Cottonwood-Willow Riparian Forest.

Least Bell's Vireo (*Vireo bellii pusillus*)

During the literature and desktop review of the Project area least Bell's vireo (*Vireo bellii pusillus*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles, is located approximately 2.0 miles to the southeast of the Project area and was documented in 2005.

Least Bell's vireo is an endangered species designated by both CDFW and USFW on the State and Federal level. As a State and Federally designated species the species is protected under both CESA and the ESA. This species is typically associated with the following habitat types: riparian forest, riparian scrub, riparian woodland. This species prefers riparian habitats with dense vegetation in the forest floor, sub-canopy, and canopy strata of the habitat. This species nests close to the ground within small trees or bushes that make the dense thickets along the transitional zones of the riparian habitat. Least Bell's vireo are insectivores foraging low within thickets of the forest floor up into the sub-canopy for medium to small insects such as beetles, flies, caterpillars, grasshoppers, moths, and true bugs.

This species is Present within the Project vicinity and was observed during focused avian surveys for the Project. The Project area and survey area contain high quality suitable habitat that support the nesting and foraging needs of least Bell's vireo.

3.9.3 Fish Species

Santa Ana Sucker (*Catostomus santaanae*)

During the literature and desktop review of the Project area Santa Ana sucker (*Catostomus santaanae*) was documented to occur within the vicinity of the Project area. Four occurrences of Santa Ana sucker occur within the *Prado Dam* and *Corona North* quadrangles that make up the vicinity of the Project area. Three of the four occurrences are the closest in proximity to the Project area and are located approximately 3.3 miles to the south, 3.4 miles to the east, and 5.5 miles to the northeast of the Project site. These three occurrences were respectively documented in 2000, 2002, and 2002.

Santa Ana sucker is a Federally listed species that is designated a threatened by USFW. Santa Ana sucker has not been listed at the State level. Due to the species Federal listing status of threatened the species is protected under the ESA. This species is typically associated with aquatic, south coast flowing water habitats particularly within the Santa Ana River and its tributaries. This species needs well oxygenated waters with temperatures between 54°F and 75°F that are free from invasive species such as bass, carp, mosquitofish, sunfish, and American bullfrogs.

Santa Ana sucker is not expected to occur within the Project area. The Project area and survey area does not contain suitable habitat able to support the species and was not observed during focused surveys conducted for other fish species.

Arroyo Chub (*Gila orcuttii*)

During the literature and desktop review of the Project area arroyo chub (*Gila orcuttii*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 4 miles to the southeast of the Project area and was documented in 1997.

Arroyo chub is a species of special of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with aquatic, south coast flowing water habitats particularly within the Santa Ana River and its tributaries. This species needs well oxygenated waters with temperatures between 50°F and 81°F that are free from invasive species such as bass, carp, crayfish, mosquitofish, sunfish, and American bullfrogs.

Arroyo chub has a Low Potential to occur within the Project area. The Project contains limited low-quality suitable habitat within the Project area and survey area consisting of the Open Waters within Chino Creek. This species was not observed during the focused fish surveys for the Project.

Steelhead Trout (*Oncorhynchus mykiss irideus*)

During the literature and desktop review of the Project area steelhead trout (*Oncorhynchus mykiss irideus*) was documented to occur within the vicinity of the Project area. The closest CNDDB documented occurrence of this species within the *Prado Dam* and *Corona North* quadrangles is located approximately 3 miles to the south of the Project area and was documented in 2013.

Steelhead trout is a Federally listed species that is designated as endangered by USFW. Steelhead trout is currently a candidate endangered species that is under review by the CFGC; without an official determination of the species status. Steelhead trout's listing status as a Federally designated endangered species and as a State designated candidate endangered species put the species under the protection of

both the ESA and CESA. This species is typically associated with aquatic, south coast flowing water habitats particularly within the Santa Ana River and its tributaries. This species needs well oxygenated waters with temperatures between 45°F and 59°F.

Steelhead trout is not expected to occur within the Project area given the lack of suitable habitat for the species and was not detected during the focused fish surveys conducted for the Project.

3.9.4 Insects Species

Crotch's Bumble Bee (*Bombus crotchii*)

During the literature and desktop review of the Project area Crotch's bumble bee (*Bombus crotchii*) was documented to occur within the vicinity of the Project area. Ten occurrences of Crotch's bumble bee occur within the *Prado Dam* and *Corona North* quadrangles that make up the vicinity of the Project area. Five of the ten occurrences are the closest in proximity to the Project area and are located approximately 0.5 of mile to the south, 0.8 of a mile to the south, 1.8 miles to the east, 3 miles to the west, and 3.1 miles to the west of the Project area. These five occurrences were respectively documented in 2023, 2023, 2024, 2020, and 2024.

Crotch's bumble bee is currently under review by the California Fish and Game Commission for listing as either threatened or endangered. As a candidate species Crotch's bumble bee is fully protected under CESA throughout the species candidacy period. Crotch's bumble bee are not listed at the Federal level by USFW. This species is typically associated with the following habitat types: chaparral, coastal scrub, Mojavean desert scrub, and valley and foothill grasslands. Suitable habitats for this species consist of open areas with abundant floristic resources and access to water for the species during the active colony period. During the queen's overwintering period dense vegetative cover, that has stable climates and is close to food resources is needed.

Crotch's bumble bee has a Moderate Potential to occur within the project area. The Project area and immediate surroundings provides limited suitable habitat for Crotch's bumble bee including the Curly Dock-Poison Hemlock patch, the Goodding's Black Willow-Eucalyptus Riparian Forest, the Non-Native Grassland, and the Poison Hemlock Patch. The project also contains high quality overwintering habitat in Chino Creek's dense leaf litter understory of the riparian habitat.

American Bumble Bee (*Bombus pensylvanicus*)

During the literature and desktop review of the Project area American bumble bee (*Bombus pensylvanicus*) was documented to occur within the vicinity of the Project area. Four occurrences of American bumble bee occur within the *Prado Dam* and *Corona North* quadrangles that make up the vicinity of the Project area. These four occurrences are located 5.7 miles to the southeast, 5.3 miles to the southwest, 1.7 miles to the west, and 4.3 miles to the west. These four occurrences were respectively documented in 1920, 2023, 2021, and 2020.

American bumble bee is a species of special concern; however, the species is not listed by Federal or State wildlife agencies. This species is typically associated with the following habitat types: coastal prairie, Great Basin grassland, as well as valley and foothill grasslands. Suitable habitats for this species consist of open areas with abundant floristic resources and access to water for the species during the active colony period. During the queen's overwintering period dense vegetative cover, that has stable climates and is close to necessary food resources are needed.

American bumble bee has a Low Potential to occur within the project area. The Project area and immediate surroundings provides limited suitable habitat for American bumble bee in the Non-Native Grassland and the Poison Hemlock Patch within the Project.

3.9.5 Mammalian Species

Stephen's Kangaroo Rat (*Dipodomys stephensi*)

During the literature and desktop review of the Project area, Stephen's kangaroo rat was documented to occur within the vicinity of the Project area. The four CNDDB documented occurrences for this species are located approximately 7.8 miles northeast of the Project area, 7 miles east of the Project area, 6.8 miles southeast of the Project area, and 7.2 miles southeast of the Project area, respectively.

Stephen's kangaroo rat is State and Federally listed as Threatened. This species is typically associated with coastal scrub, valley and foothill grassland, and sparse perennial vegetation with firm soils that are "neither hard nor sandy."

The Stephen's kangaroo rat is Not Expected to occur within the Project area. The Project area and immediately surrounding areas lacks the required habitat types that are associated with this species.

Western Mastiff Bat (*Eumops perotis californicus*)

During the literature and desktop review of the Project area, western mastiff bat was documented to occur within the vicinity of the Project area. The CNDDB documented occurrences of this species are located approximately 5.6 miles east of the Project area and 6.6 miles southwest of the Project area, respectively.

The western mastiff bat is a CDFW species of special concern. This species is typically associated with chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Suitable habitat for this species consists of extensive open areas with abundant roost locations provided by crevices in rock outcroppings and buildings.

The western mastiff bat has a Low Potential to occur within the Project area. The Project area contains suitable foraging habitat; however, no suitable rock cliffs for maternity roosts occur within or immediately adjacent to the Project area.

Western Yellow Bat (*Lasiurus xanthinus*)

During the literature and desktop review of the Project area, western yellow bat was documented to occur within the vicinity of the Project area. The two CNDDB documented occurrences of this species are located approximately 4.8 miles east of the Project area and 5.7 miles southeast of the Project area, respectively.

The western yellow bat is a CDFW species of special concern. This species is typically associated with desert washes and roosts and feeds in and near palm oases and riparian habitats. The Project area contains riparian habitat that may provide potentially suitable habitat for this species.

The western yellow bat has a Moderate Potential to occur within the Project area. The Project area contains trees suitable for roosting and open water areas suitable for foraging.

Pocketed Free-tailed Bat (*Nyctinomops femorosaccus*)

During the literature and desktop review of the Project area, pocketed free-tailed bat was documented to occur within the vicinity of the Project area. The CNDDB documented occurrence of this species is located approximately 5.7 miles southeast of the Project area and is from 1986.

The pocketed free-tailed bat is a CDFW species of special concern. This species is typically associated with Joshua tree woodland, pinon and juniper woodlands, riparian scrub, Sonoran desert scrub, and prefers rocky desert areas with high cliffs or rock outcrops. The Project area does not provide these habitat types.

The pocketed free-tailed bat is Not Expected to occur within the Project area. This species is primarily associated with desert areas and habitat types, none of which occur within or immediately adjacent to the Project area.

3.9.6 Reptile Species

Southwestern Pond Turtle (*Actinemys pallida*)

During the literature and desktop review of the Project area, southwestern pond turtle was documented to occur within the vicinity of the Project area. The CNDDB documented occurrences for this species within the *Prado Dam* and *Corona North* quadrangles are located approximately 4 miles east, 3.5 miles southwest, and 5.3 miles west of the Project area. The most recent documented occurrence of this species is from 2011.

The southwestern pond turtle is a CDFW species of special concern. This species is typically associated with ponds, marshes, rivers, streams, and irrigation ditches. Streams and ponded areas within the Project area could provide potentially suitable habitat for this species.

The southwestern pond turtle has a Moderate Potential to Occur within the Project area. Suitable aquatic and upland habitats are present in the Project area, and there are recorded occurrences of the species along the Santa Ana River. However, the presence of red-eared sliders, which are known to aggressively compete with native turtles, has likely led to the displacement of southwestern pond turtles within the survey area.

Southern California Legless Lizard (*Anniella stebbinsi*)

During the literature and desktop review of the Project area, southern California legless lizard was documented to occur within the vicinity of the Project area. The CNDDB documented occurrence is within the *Corona North* quadrangle and is located approximately 8.6 miles east of the Project area, from 2016.

The southern California legless lizard is a CDFW species of special concern. This species is typically associated with broadleaved upland forest, chaparral, coastal dunes, and coastal scrub habitats. Southern California legless lizard specializes in substrates with high sand content not available or occurring in the Project site.

The southern California legless lizard has a Low Potential to Occur within the Project area. Limited suitable habitat is present and there are known records in the Prado Basin.

Orange-Throated Whiptail (*Aspidoscelis hyperythra*)

During the literature and desktop review of the Project area, orange-throated whiptail was documented to occur within the vicinity of the Project area. The CNDDB documented occurrences within the *Prado Dam* and *Corona North* quadrangles are located approximately 1.5 miles southwest, 4.5 miles southwest, 4.8 miles east, 7.5 miles east, and 7.3 miles southeast of the Project area, respectively. The most recent documented occurrence is from 2005.

The orange-throated whiptail is a CDFW Watch List species, which includes taxa previously considered species of special concern. This species is typically associated with chaparral, cismontane woodland, and coastal scrub habitats. The Project area does not contain suitable habitat types for this species.

This species is Not Expected to occur within the Project area. This species occupies coastal scrub, mixed chaparral, and foothill woodlands, none of which are present within or immediately adjacent to the Project area.

San Diego banded Gecko (*Coleonyx variegatus abbotti*)

During the literature and desktop review of the Project area, San Diego banded gecko was documented to occur within the vicinity of the Project area. The only CNDDB documented occurrence is within the *Corona North* quadrangle, approximately 7.6 miles southeast of the Project area, and is from 2003.

The San Diego banded gecko is a CDFW species of special concern. This species is typically associated with chaparral and coastal scrub habitats. The Project area does not contain suitable habitat types for this species.

This species is Not Expected to occur within the Project area. This species requires rocky coastal scrub and granite outcrops, none of which occur within or immediately adjacent to the Project area.

Red-Diamond Rattlesnake (*Crotalus ruber*)

During the literature and desktop review of the Project area, red-diamond rattlesnake was documented to occur within the vicinity of the Project area. The three closest CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles are located approximately 5.7 miles southwest, 5.2 miles southwest, and 7.2 miles southeast of the Project area and are from 2001 and 2003, respectively.

The red diamond rattlesnake is a CDFW species of special concern. This species is typically associated with chaparral, Mojavean desert scrub, and Sonoran desert scrub. The Project area does not contain suitable habitat for this species.

This species is Not Expected to occur within the Project area. The species requires rocky areas in chaparral, woodland, and arid scrub habitats, none of which occur within or immediately adjacent to the Project area.

Coast Horned Lizard (*Phrynosoma blainvillii*)

During the literature and desktop review of the Project area, coast horned lizard was documented to occur within the vicinity of the Project area. The two CNDDB documented occurrences of this species within the *Prado Dam* and *Corona North* quadrangles are located approximately 4.5 miles southwest and 8.8 miles southeast from the Project area and are from 2005 and 1951, respectively.

The coast horned lizard is a CDFW species of special concern. This species is typically associated with chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon and juniper woodlands, riparian scrub, riparian woodland, and valley and foothill grassland.

This species has a Low Potential to occur within the Project area. Limited marginally suitable habitat is present in the study area and is isolated from occupied habitat in the foothills to the west of SR71. Additionally, the species has not been documented within or immediately adjacent to the Project area.

South Coast Gartersnake (*Thamnophis sirtalis*)

During the literature and desktop review of the Project area, south coast gartersnake were documented to occur within and within the vicinity of the Project area. The closest CNDDB documented occurrence of this species is from 2015, within the Project area, just north of the northern extent of the riparian/wetland vegetation documented within the Project site area.

The south coast gartersnake is a CDFW species of special concern. This species is typically associated with artificial standing waters, marsh and swamp, riparian scrub, riparian woodland, south coast flowing waters, south coast standing waters, and wetlands. Suitable habitat for this species consists of the wetlands and riparian woodlands observed within the Project area.

This species has a High Potential to occur within the Project area. The Project area and survey area contain suitable high-quality habitat able to support the species and historically, this species has been documented to occur within the Project area. However, this species was not observed during the focused surveys conducted for reptiles.

3.10 Wildlife Movement and Connectivity

The Project area is within the Prado Basin which is an important area for wildlife movement and connectivity for a variety of different species. The Prado Basin has a multiplicity of riparian and wetland habitats that support the wildlife movements for both avian species and terrestrial species. Riparian habitats are known to support the movements of species due to the availability of water, potential prey and other food sources, as well as forming areas of somewhat easy passage. The Prado Basin provides for wildlife movement within the extent of the basin however, due to the anthropogenic isolation the basin provides only limited connectivity to other surrounding high-quality habitat areas.

Avian species use the Prado Basin both as a stopover location during the spring migration as species travel further north and into Canada as well as nesting habitat for migrating species such as least Bell's vireo, yellow-breasted chat, and yellow warbler. The basin also provides fall migrating waterfowl with an overwintering location able to support these species throughout the winter months.

Terrestrial species within the Prado Basin have the ability to move throughout the extent of the basin with relative ease, access to prey or food resources, and water. Terrestrial species are more affected by the physical barriers and development of the basin which block connectivity to the Chino Hills in the west and the Santa Ana Mountains to the south. Chino Creek may provide terrestrial species with a seasonal constrained linkage to the upstream areas of the Santa Ana River with access to the wildlife areas along the river such as the Hidden Valley and Robidoux preserves.

Euclid Avenue currently exists as one of the physical barriers to wildlife movement and connectivity in and out of the Prado Basin which isolates the northwestern upstream wetland areas along Chino Creek from the larger natural areas of within the basin. The roadway is an elevated barrier with two lanes of fast-moving traffic that poses an increased threat of direct mortality to wildlife within the area.

3.11 Critical Habitat

The Project area and survey area contains two USFW designated critical habitats for the species of least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) (see **Figure 7 – Critical Habitat Map**). Both designated critical habitats intersect with the Project area where Euclid Avenue crosses the Prado Basin.

The limits of the least Bell's vireo critical habitat area are roughly defined by the full extent of the Prado Basin. The limits of the designated critical habitat include both densely vegetated woodland habitats as well as open areas without a canopy within the basin. This area is known to support the existence of least Bell's vireo historically and currently. The critical habitat for least Bell's vireo within the Prado Basin functions as spring and summer breeding grounds for the species. This habitat offers least Bell's vireo's preferred breeding habitat of densely vegetated riparian areas consisting of species such as cottonwood, wild blackberry, and willows.

The critical habitat limits of the southwestern willow flycatcher are smaller than the critical habitat limits of least Bell's vireo, and are roughly defined by the densest, covered, riparian forest/woodland areas within the basin ending at the dripline of the habitat types. This area is known to support the existence of southwestern willow flycatcher. The literature review found multiple documented occurrences, across multiple sources, of this species occurring within the limits of the Project survey area. This species was not observed during the focused avians surveys conducted within the limits of the Project survey area. Southwestern willow flycatcher utilizes the habitat within the Prado Basin primarily as a stopover habitat during spring and fall migrations. The habitat within the Prado basin was historically documented to support the nesting behaviors of the species however, this has not been observed in many years.

3.12 Federal and State Jurisdictional Waters and Wetlands

3.12.1 Watershed and Hydrology

According to the RWQCB's Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the proposed Project site is located within the Prado Basin Management Zone. The Prado Basin Management Zone is a surface water zone generally defined as the area within the 566-foot elevation AMLS. Additionally, the proposed Project site is located within hydrologic unit code 12, lower Chino Creek, 180-702-0307-06. Beneficial uses (BU) associated with the Prado Basin Management Zone include BU Codes RARE, REC1, REC2, WARM, and WILD, which are described further below:

- RARE – Rare, Threatened, or Endangered Species: waters that support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.
- REC1 – Water Contact Recreation: waters that are used for recreational activities involving body contact with water where ingestion of water is reasonably possible.
- REC2 – Non-Contact Water Recreation: waters that are used for recreational activities involving proximity to water but not normally involving body contact with water where ingestion of water would be reasonably possible.
- WARM – Warm Freshwater Habitat: waters that support warmwater ecosystems that may include, but are not limited to, preservation and enhancement of aquatic habitats, vegetation, and fish and wildlife, including invertebrates.
- WILD – Wildlife Habitat: waters that support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

The proposed Project site is located within the lower Chino Creek approximately 35 miles from the channel's confluence with the Santa Ana River. The Santa Ana River conveys flows into the Pacific Ocean, a Traditionally Navigable Water (TNW), therefore establishing a nexus to navigable waters, as defined by USACE.

3.12.4 Potentially Jurisdictional Features

The survey area was examined for evidence of potential jurisdictional resources and to determine the extent of any potential USACE, RWQCB, and/or CDFW jurisdictional resources. The potentially jurisdictional resources observed within the proposed Project area include two drainage features, Drainage Feature 1 and Drainage Feature 2, and a perennial stream feature, Chino Creek. Additionally, wetland features are present along Chino Creek and are situated adjacent to the creek. A description of each feature is further described below:

Drainage Feature 1: Drainage Feature 1 is a man-made, earthen and concrete ephemeral ditch that transports flows from the surrounding development. Drainage Feature 1 conveys flows in a west to east direction as it crosses under Pomona Rincon Road. Drainage Feature 1 eventually conveys flows to Chino Creek. A portion of this drainage feature is mostly unvegetated on the southwest side of Pomona Rincon Road. As it crosses under the road and converges with Chino Creek riparian habitat, species associated with the feature include: short pod mustard (*Hirschfeldia icana*), Russian thistle (*Salsola tragus*), and non-native grasses. No water was present in this feature at the time of the jurisdictional delineation.

Drainage Feature 2: Drainage Feature 2 receives runoff flows from the Chino Creek floodplain, including runoff flows from the Prado Olympic Shooting Park. Drainage Feature 2 eventually converges with

Drainage Feature 1, eventually conveying flows to Chino Creek. Species associated with the feature include: Goodding's black willow (*salix gooddingii*), poison hemlock (*Conium maculatum*), castor bean (*Ricinus communis*), and Lemon-scented gum (*Corymbia citriodora*). No water was present in this feature at the time of the jurisdictional delineation.

Drainage Feature 3 (Chino Creek): Chino Creek is a perennial earthen creek that eventually conveys flows to Prado Basin. It is designated as a blue-line feature on the USGS Prado Dam Topographic Map. Wetlands are located along Chino Creek, however, this feature has been mapped to include areas within the survey area that continuously convey flows. Flowing water was present during the time of the jurisdictional delineation.

Wetland Feature 1: Wetland Feature 1 is supported along Chino Creek where the surrounding soils stay moist for prolonged periods of time. It is designated as a wetland by the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) maps. This wetland system includes many smaller drainages throughout that are fed by Chino Creek and the surrounding floodplain. These small streams create a dynamic system, with a mix of flowing and stagnant water, saturated soils, and high water table, contributing to its function as a floodplain wetland. Dominant species associated with this feature included: Goodding's willow (*Salix gooddingii*), poison hemlock (*Conium maculatum*), great stinging nettle (*Urtica dioica*), California wild grape (*Vitis californica*), trailing blackberry (*Rubus ursinus*), rough cocklebur (*Xanthium strumarium*), southern cattail (*Typha domingensis*), and poison hemlock (*Conium maculatum*).

3.12.5 CDFW Jurisdictional Resources

Drainage Feature 1: Potential CDFW jurisdiction associated with Feature 1 totals approximately 0.03 acre (total of 254 linear ft.) of unvegetated non-riparian streambed. Bank to bank widths within CDFW jurisdiction range from approximately 15 ft. to 9.5 ft.

Drainage Feature 2: Potential CDFW jurisdiction associated with the channel totals approximately 0.01 acre (total of 42 linear ft.) of vegetated riparian streambed. Bank to bank widths within CDFW jurisdiction range from approximately 30.5 ft. to 13 ft.

Drainage Feature 3 (Chino Creek): Potential CDFW jurisdiction associated with Chino Creek within the Project study area totals approximately 0.55 acre of unvegetated streambed (total of 450 linear ft.). Bank to bank widths within CDFW jurisdiction is approximately 118 ft.

Wetland Feature 1: Potential CDFW jurisdiction associated with Chino Creek within the Project study area totals approximately 21.3 acre of riparian/wetland jurisdiction.

3.12.6 RWQCB Jurisdictional Resources

Drainage Feature 1: Potential RWQCB jurisdiction associated with Drainage Feature 1 totals approximately 0.02 acre (total of 254 linear ft.), none of which consists of State jurisdictional wetlands. The OHWM within the drainage feature is approximately 14 ft. to 8.5 ft. wide.

Drainage Feature 2: Potential RWQCB jurisdiction associated with Drainage Feature 2 totals approximately 0.01 acre (total of 42 linear ft.), none of which consists of State jurisdictional wetlands. The OHWM within the drainage feature is approximately 27 ft. to 10 ft. wide.

Drainage Feature 3 (Chino Creek): Potential RWQCB jurisdiction associated with Chino Creek totals approximately 0.55 acre (total of 450 linear ft.), none of which consists of State jurisdictional wetlands. The OHWM within Chino Creek is approximately 118 ft. wide.

Wetland Feature 1: Potential RWQCB jurisdiction associated with the Wetland Feature 1 totals approximately 21.3 acre of State jurisdictional wetlands.

3.12.7 USACE Jurisdiction

Drainage Feature 1: Potential USACE jurisdiction associated with Drainage Feature 1 totals approximately 0.02 acre (total of 254 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within the drainage feature is approximately 14 ft. to 8.5 ft. wide.

Drainage Feature 2: Potential USACE jurisdiction associated with Drainage Feature 2 totals approximately 0.01 acre (total of 42 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within the drainage feature is approximately 27 to 10 ft. wide.

Drainage Feature 3 (Chino Creek): Potential USACE jurisdiction associated with Drainage Feature 3 totals approximately 0.55 acre (total of 450 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within Chino Creek ranges from approximately 118 ft.

Wetland Feature 1: Potential USACE jurisdiction associated with Wetland Feature 1 totals approximately 0.21.3 acre.

A summary of potential jurisdictional resources is presented in Table 5 – *Summary of Potential USACE, RWQCB, and CDFW Jurisdictional Resources within Survey Area* below.

Table 5 – Summary of Potential USACE, RWQCB, and CDFW Jurisdictional Resources within Survey Area

	USACE/RWQCB		CDFW	
Feature Type	**Non-wetland WoUS (acres)**	**Wetland WoUS (acres)**	**Unvegetated Streambed (acres)**	**Riparian/Wetland (acres)**
Feature 1	0.02 acre (254 lf)	—	0.03 acre (254 lf)	—
Feature 2	0.01 (42 lf)	—	—	0.01 acre (42 lf)
Feature 3 (Chino Creek)	0.55 acre (450 lf)	—	0.55 acre (450 lf)	—
Wetland Feature	—	21.3 acres	—	21.3 acres

4.0 REGULATORY FRAMEWORK

4.1 Federal Regulations

CLEAN WATER ACT (33 U.S.C. 1344 ET SEQ.)

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into WoUS, including wetlands. The USEPA promulgated Section 404(b)(1) guidelines (40 CFR Part 230); however, the USACE Regulatory Program evaluates, and issues permits for proposed discharges into WoUS. Section 401 of the Clean Water Act requires applicants for Federal permits and or licenses to provide certification from the State stating any discharges from the project will comply with State-established water quality standard

requirements. Applicants/Requestors must obtain a Section 401 certification or waiver for the proposed action before the USACE can authorize a permit under Section 408 and Section 404. EC 1165-2-220 specifies USACE as the regulatory agency who will coordinate internally to ensure Section 404 permits and the Section 408 Permissions are consistent.

RIVER AND HARBORS ACT (33 U.S.C. 403)

Section 10 of the River and Harbors Act regulates the construction of structures in or over any navigable WoUS or outside the defined limits of navigable WoUS if the structure or work affects the course, location, or condition of the water body. The law regulates disposal of dredged or fill materials, dredging, excavation, filling, modification and recanalization of WoUS and pertains to the smallest to the largest of construction undertakings including without limitation any aerial or subaqueous power transmission lines, aids to navigation, artificial canal, bank protection (e.g., riprap, revetment, bulkhead), boat ramp, boom breakwater, dolphin, groin, intake or outfall pipes, jetty, mooring structures such as pilings, permanently moored floating vessel, riprap, revetment, tunnel, weir, wharf. This section applies to all construction whether permanent, semi-permanent, or temporary.

Section 14 of the Rivers and Harbors Act of 1899, as amended, and codified in 33 U.S.C 408 (Section 408) provides that the Secretary of the Army may, upon the recommendation of the USACE Chief of Engineers, grant permission to other entities for the permanent or temporary alteration or use of any USACE Civil Works project. This requires a determination by the Secretary that the requested alteration would not be injurious to the public interest and would not impair the usefulness of the USACE project. The purpose of the Section 408 review is to ensure that the Congressionally-authorized purpose and benefits of the Civil Works project are protected and maintained (e.g., flood risk management, navigation, coastal storm damage reduction) and to ensure that what is being proposed is not injurious to the public interest.

FEDERAL ENDANGERED SPECIES ACT

The Federal Endangered Species Act (ESA) was enacted in 1973 to conserve threatened and endangered species and their ecosystems. Actions jeopardizing endangered or threatened species and or their habitats they rely on are considered “take” under the ESA. Take of a Federally listed threatened or endangered species is prohibited without a special permit. The ESA allows for take of a threatened or endangered species incidental to development activities once a habitat conservation plan has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The ESA also allows for the take of threatened or endangered species after Section 7(a)(2) consultation with the USFWS has deemed development of the Federal action associated with activities will not jeopardize the continued existence of the species.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) was enacted in 1918 to protect native migratory birds or any part, nest, or egg of such bird unless allowed by another regulation adopted in accordance with the act. Enforced in the U.S. by the USFWS, the MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in the Code of Federal Regulations, Title 50, Chapter 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (Code Fed. Regs., Title 50, Ch. 21). Disturbance can causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) may be considered “take” and is potentially punishable by fines and/or imprisonment. FISH AND WILDLIFE COORDINATION ACT OF 1958, AS AMENDED, (16 U.S.C. 661 ET SEQ.) The FWCA requires Federal agencies consult with the USFWS and the head of the agency exercising administration over the wildlife resources of the particular state, “whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the

stream or other body of water otherwise controlled or modified for any purpose whatever" (16 U.S.C. 662).

NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, AS AMENDED, (42 U.S.C. 4321 ET SEQ.)

EPA requires Federal agencies to assess the environmental effects of their proposed actions prior to decision making. This biological report has been prepared following the 2020 CEQ NEPA Regulations (40 CFR 1500-1508) and the USACE ER 200-2-2 (33 CFR 230) and satisfies the NEPA requirement.

4.2 State Regulations

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA), like the Federal ESA, contains a process for the listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife but do not include invertebrates. The designation "rare" applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the CESA. State threatened and endangered animal species are legally protected against take. The CESA authorizes CDFW to enter into a memorandum of agreement for take or listed species to issue an incidental take permit for a State-listed threatened and endangered species only if specific criteria are met.

CALIFORNIA FISH AND GAME CODE

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Take is defined in Section 86 as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 5050 lists protected amphibians and reptiles. Section 3315 prohibits take of fully protected fish species. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. Migratory non-game birds are protected under Section 3800. Mammals are protected under Section 4700. Section 2126 of the California Fish and Game Code states it is unlawful for any person to take any mammal as identified within Section 2118, including all species of bats.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states: "An entity may not 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 or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015)." CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of (1) definable bed and banks and (2) existing fish or wildlife resources. Furthermore, CDFW jurisdiction often extends to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands supporting the hydrologic function within the riparian system. CDFW jurisdiction typically does not include features without a discernible bed and bank, such as swales, vernal pools, or wet meadows.

5.0 CONCLUSIONS

5.1 Impacts on Vegetation Communities and Land Use Types

5.1.1 Agricultural Land

Potential Project development impacts to the Agricultural Land use type would consist of an area 0.55 of an acre. This impact would consist of clearing, grading, and development activities. The impacts within this area of the Project would be considered permanent with the development of viaduct structure. Impacts to this land use type would be negligible for sensitive wildlife species and or the habitats they occupy known to occur within the area. Impacts to this land use type would be negligible for sensitive wildlife and plant species with potential to occur in the area.

5.1.2 Cottonwood Stand

The Cottonwood Stand vegetation type does not fall within the Project area or the Project development footprint and would not be impacted by the potential development of the Project as proposed.

5.1.3 Curly Dock-Poison Hemlock Patch

Potential Project development impacts to the Curly Dock-Poison Hemlock Patch vegetation type would consist of an area of 1.62 acres. This impact would consist of clearing, grading, and development activities for the construction of the viaduct's foundation, substructure, and superstructure. The impacts within this area of the Project would be considered temporary with impacts occurring during the clearing, grading, and development of the Project, however, this area would be able to reestablish after the completion of the viaduct structure as the superstructure would be elevated within this area.

5.1.4 Developed Lands

Potential Project development impacts to the Developed Lands land use type would consist of an area of 12.41 acres. This impact would consist of clearing, grading, and development activities. The impacts within this area of the Project would be considered permanent with limited change to site conditions in the northern and southern extents of the Project where the existing Euclid Avenue would tie into the new viaduct structure. Impacts to the section of Euclid Avenue that crosses through the Prado basin would also be permanent with the removal of the existing Euclid Avenue roadway. The creation of the new elevated viaduct structure would impart additional new developed areas within the Prado basin, in the form of foundation and piers to support the new viaduct superstructure. The newly developed areas would have a smaller footprint than the existing footprint of Euclid Avenue as it crosses over the Prado basin area. The removal of the existing Euclid Avenue roadway would offset and lessen the total developed area within the Prado basin area after the completion of the Project. The proposed Project development in the northern and southern extents of the Project area would add additional developed areas primarily affecting the Non-Native Grassland habitats that surround existing Euclid Avenue. The development of previously Developed lands within the Project area would not impact any existing biological resources or potential habitat. Furthermore, the removal of the existing Euclid Avenue roadway within the Prado Basin would allow for the reclamation of habitat within the basin.

5.1.5 Goodding's Black Willow-Eucalyptus Riparian Forest

Potential Project development impacts to the Goodding's Black Willow-Eucalyptus Riparian Forest vegetation type would consist of 0.13 of an acre. This impact would consist of clearing, grading, and development activities. The Project area abuts the Goodding's Black Willow-Eucalyptus Riparian Forest to the west of Euclid Avenue where limited amounts of the vegetation may be impacted. The isolated stand

of this vegetation type that occurs to the east of Euclid Avenue and north of the Inland Valley Retriever Club dog park would be subject to all of the 0.13 of an acre impact to this vegetation type. The impacts to the vegetation in the east would be permanent with the development of the viaduct structure within the area. Impacts to this vegetation type would impact habitat able to support sensitive wildlife species with potential to occur within the area. Impacts to this vegetation type would impact habitat able to support sensitive plant species with potential to occur within the area. Impacts to both special status potentially occurring wildlife and plant species would be limited due to the low quality and limited size of this habitat.

5.1.6 Non-Native Grassland

Potential Project development impacts to the Non-Native Grassland vegetation type would consist of 9.26 acres. This impact would consist of clearing, grading, and development activities. The impacts to this vegetation type would be permanent with the development of the viaduct structure. Impacts to this land use type would be negligible for sensitive wildlife species and or the habitats they occupy known to occur within the area.

5.1.7 Open water

Potential Project development would not impact the Open Water land use type as the Project does not propose any alteration or development within Chino Creek. The Project development footprint does intersect with 0.25 of an acre of the Open Water land use type.

5.1.8 Poison Hemlock Patch

Potential Project development impacts to the Poison Hemlock Patch vegetation type would consist of an area of 1.67 acres. This impact would consist of clearing, grading, and development activities for the construction of the viaduct's foundation, substructure, and superstructure. The impacts within this area of the Project would be considered temporary with impacts occurring during the clearing, grading, and development of the Project, however, this area would be able to reestablish after the completion of the viaduct structure as the superstructure would be elevated within this area. Impacts to this vegetation type would impact habitat able to support sensitive wildlife species with potential to occur within the area. Impacts to this vegetation type would impact habitat able to support sensitive plant species with potential to occur within the area.

5.1.9 Ruderal Disturbed

Potential Project development impacts to the ruderal disturbed land use type would consist of 2.98 acres. The impacts to this vegetation type would consist of clearing, grading, staging, and development activities for the construction of the viaduct's foundation, substructure, and superstructure. The impacts to this land use type would be permanent with the development of the new roadway connecting the viaduct structure to the existing Euclid Avenue. The development of ruderal disturbed areas within the Project area would not impact any existing biological resources or potential habitat for sensitive species.

5.2 Impacts on Nesting Birds

The Project study area provides habitat to support songbird and raptor nests (including sensitive species, such as least Bell's vireo) in the form of shrubs, ground cover, and trees within the study area. The Proposed Project construction activities could directly and indirectly impact on nesting birds. Potential indirect impacts could include: increased noise and vibratory disturbances during the development of the Project, as well as the temporary clearing of habitat for the development of the viaduct foundation, substructure, and superstructure. Potential direct impacts could include the loss of nesting habitat in the areas that are developed to construct the viaduct foundation, substructure, and superstructure. Project

activities have the potential to disturb or destroy active nests, including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and would be considered a potentially significant impact. However, with implementation of **MM-BIO-2**, requiring a pre-construction nesting bird survey prior to construction activities, potential impacts to nesting birds would be reduced to, and maintained at, a less than significant level.

5.3 Impacts on Special-Status Vegetation Communities

The Project would directly impact 5.75 acres of the special-status Southern Cottonwood-Willow Riparian Forest vegetation community that is within the Project area. The impact to this vegetation type would consist of clearing, grading, and development activities for the construction of the viaduct's foundation, substructure, and superstructure. The impacts to this vegetation type would consist of both temporary, permanent, and indirect impacts.

Temporary impact would include the clearing of vegetation to provide space for the development of the Project but would not be fully developed. Vegetation would be allowed to reestablish after the completion of the viaduct structure.

Permanent impacts would include the development of the viaduct foundation, substructure, and the maintenance of the vegetation in the areas under and adjacent to the viaduct structure. The maintenance of the vegetation that occurs under and adjacent to the viaduct structure would permanently alter the habitat such that it would not function as Southern Cottonwood-Willow Riparian Forest habitat.

Indirect impacts would include the removal of the existing Euclid Avenue roadway and levee from within the Prado Basin. This would allow for the regrowth and expansion of this habitat into previously unvegetated areas.

5.4 Impacts on Special-Status Plant Species

The proposed Project has the potential to impact special-status plant species that have the potential to occur onsite. Focused plant surveys for lucky morning-glory, smooth tarplant, Jokerst's monardella, white rabbit-tobacco, and salt spring checkerbloom should be conducted in accordance with **MM-BIO-1** to determine presence or absence of these species on the Project site and to determine if any avoidance or minimization measures should be applied and will ensure any identified potential impacts to special-status plant species resulting from Project development and/or Project operation would be reduced to and maintained at a less than significant level.

5.5 Impacts on Special-Status Wildlife Species

5.5.1 Avian Species

The proposed Project has the potential to impact least Bell's vireo, southwestern willow flycatcher, and yellow billed cuckoo as well as raptors such as the white-tailed kite, golden eagle, and Swainson's hawk, if any of these species are present during construction. To minimize or avoid potential Project impacts to least Bell's vireo and other sensitive avian species, the Project would implement mitigation measures **MM-BIO-2 and MM-BIO-3**, which would require pre-construction nesting bird surveys as well as compensatory mitigation for the permanent removal of riparian vegetation at a minimum 3:1 ratio. The Project would additionally implement mitigation measure **MM-BIO-9** to minimize or avoid potential construction noise impacts to nesting birds and other sensitive wildlife species. With the implementation of these mitigation measures, potential Project impacts to special-status avian species would be reduced to, and maintained at, a less than significant level.

Burrowing owl suitable habitat and ground squirrel burrows were observed within the survey area. The proposed Project has the potential to impact burrowing owl if present during construction activities. Burrowing owl is currently a candidate species that is under review by the California Fish and Game Commission and CDFW. As a candidate species, it is fully protected under CESA until a decision is made on the species status. Given the suitable habitat in the survey area and known presence in the general vicinity of the Project, burrowing owl was found to have a moderate potential of occurring within the Project area. The following mitigation measures will ensure that the Project does not impact the species. **MM-BIO-2** would require pre-construction nesting bird surveys to be performed to ensure that no nesting avian species including burrowing owl would be impacted by the development of the Project. **MM-BIO-4** would require a focused burrowing owl survey to be performed on the Project site during burrowing owl's breeding season, February 1 and August 31. A preconstruction presence/absence survey will also be performed to ensure ground disturbing activities of the Project do not impact the species. With the implementation of these mitigation measures, potential Project impacts to burrowing owl would be reduced to, and maintained at, a less than significant level. Impacts to all other avian species that are: listed, special-status, or subject to special protection will be avoided by the following mitigation measure. **MM-BIO-2** would require pre-construction nesting bird surveys to be performed to ensure that no nesting avian species would be impacted by the development of the Project. With the implementation of this mitigation measure, potential Project impacts to special-status avian species would be reduced to, and maintained at, a less than significant level.

5.5.2 Amphibians

Focused fish and herpetofauna surveys were performed by Applied Ecology Solutions between April 15 and October 25, 2024. These surveys included focused diurnal surveys for western pond turtle, garter snakes, and terrestrial herps, as well as nocturnal surveys for fish and amphibians. The special-status amphibian species included in the focused surveys were the coast range newt (*Taricha torosa*), western spadefoot (*Spea hammondii*), and arroyo toad (*Anaxyrus californicus*).

No special-status amphibians were observed during the focused surveys. The most frequently encountered amphibian during the surveys was the invasive American bullfrog (*Lithobates catesbeiana*).

Coast range newt were found to have a low potential to occur within the Project area as only marginally suitable habitat is present. Western spadefoot were similarly found to have a low potential to occur as only marginally suitable breeding habitat may be present in isolated backwater portions of the Prado Basin that do not have connectivity to the Chino Creek mainstream. Arroyo toad were not expected to occur as these species require streams in broad alluvial washes with slow-moving, shallow sections or side pools, which are not present within the Project area. Therefore, as the Project area would at most only provide marginally suitable habitat for coast range newt and western spadefoot and as none of these special-status amphibian species were detected during focused surveys of the Project area, the Project is not anticipated to result in significant impacts to special-status amphibians. Further, with the implementation of mitigation measure **MM-BIO-5**, which would require pre-construction presence/absence surveys for special-status amphibian species, any potential impacts would be reduced to, and maintained at, a less than significant level.

5.5.3 Reptiles

The focused fish and herpetofauna surveys performed for the Project area included surveys for southern California legless lizard (*Anniella stebbinsi*), California glossy snake (*Arizona elegans occidentialis*), coast horned lizard (*Phrynosoma blainvillii*), southwestern pond turtle (*Actinemys pallida*), two-striped gartersnake (*Thamnophis hammondii*), and south coast gartersnake (*Thamnophis sirtalis pop. 10*).

No special-status reptiles were observed during the focused surveys. Southwestern pond turtle were found to have a moderate potential to occur within the Project area as suitable aquatic and upland habitat is present in the study area. Southern California legless lizard, California glossy snake, coast horned lizard, and two-striped gartersnake were found to have a low potential to occur within the Project area as only limited marginally suitable habitat is present. South coast gartersnake were found to have a high potential for occurrence as suitable habitat is present and there are records from the study area; however, the documented occurrence is from 2015 and this species was not detected within the Project study area during the 2024 focused surveys. Therefore, due to limited suitable habitat availability and no occurrences of these special-status reptile species during the 2024 focused surveys, the Project is not anticipated to result in significant impacts to special-status reptiles. Further, with the implementation of mitigation measure **MM-BIO-5**, which would require pre-construction presence/absence surveys for special-status reptile species, any potential impacts would be reduced to, and maintained at, a less than significant level.

5.5.4 Fish

The focused fish and herpetofauna surveys performed for the Project area included surveys for arroyo chub (*Gila orcutti*), which was found to have a low potential for occurrence within the Project area as only marginally suitable habitat is present in the Project study area.

Neither arroyo chub or any other special-status or native fish species were observed during the focused surveys. Nine (9) species of non-native and invasive fishes were observed in the Project study area, including western mosquitofish (*Gambusia affinis*), green sunfish (*Lepomis cyanellus*), sailfin molly (*Poecilia latipinna*), largemouth bass (*Micropterus salmoides*), spotted bass (*Micropterus punctatus*), bluegill (*Lepomis macrochirus*), common carp (*Cyprinus carpio*), inland silverside (*Medina beryllina*), and yellow bullhead (*Ameirus natalis*). Therefore, as only marginally suitable habitat is present in the Project study area and as no special-status or native fish species were detected during the 2024 focused surveys, the Project is not anticipated to result in impacts to special-status fish. Further, with the implementation of mitigation measure **MM-BIO-5**, which would require pre-construction presence/absence surveys for special-status fish species, any potential impacts would be reduced to, and maintained at, a less than significant level.

5.5.5 Insects

The proposed Project has the potential to impact Crotch's bumble bee that have the potential to occur within the Project's impact area. The Project site supports habitat and floristic resources that could support this species potentially, during all of periods of the species life cycle. A focused Crotch's bumble bee survey should be conducted in accordance with **MM-BIO-10** to determine the presence or absence of the species on the Project site and to determine if any additional avoidance or minimization measures should be applied. With the implementation of **MM-BIO-10** any potential impacts to Crotch's bumble bee would be reduced to, and maintained at, a less than significant level.

5.5.6 Mammals

The proposed Project has the potential to impact western mastiff bats and western yellow bats that have the potential to occur within the Project's impact area. The Project site supports roosting and maternity roosting habitat for both species. Bat emergence surveys will be conducted in accordance with **MM-BIO-6,** which would require three pre-construction emergence surveys between one hour before sunset and one hour after sunset to determine the presence or absence of bat species on the Project site. Results of the three surveys would determine if any additional avoidance or minimization measures should be applied. With the implementation of **MM-BIO-6** any potential impacts to western mastiff bats and western yellow bats would be reduced to, and maintained at, a less than significant level.

5.6 Impacts on Wildlife Movement and Connectivity

The Project as proposed would improve wildlife movement and connectivity by increasing the potential for wildlife movement and increase the connectivity of the Prado Basin to the upstream areas of Chino Creek. The increased wildlife movement and connectivity would result from the removal of the existing Euclid Avenue roadway and the creation of an elevated viaduct structure. The Project would remove the anthropogenic barrier within the area to be replaced by suitable and navigable habitat providing terrestrial species the ability to move through this area without the pressures of direct mortality imposed by existing Euclid Avenue roadway. Further, with the implementation of mitigation measures **MM-BIO-7**, which would design the bridge with columns rather than pier walls to the furthest extent possible, any potential impacts would be reduced to, and maintained at, a less than significant level.

5.7 Impacts on Critical Habitat

The Project would impact the critical habitat of least Bell's vireo and southwestern willow flycatcher designated by the USFW (see **Figure 12 – Critical Habitat Impact Map**). The Project as proposed would include temporary, permanent, and indirect impacts to both species critical habitats.

Total impacts to least Bell's vireo critical habitat would amount to 27.80 acres within the Project area as it extends from the northernmost extent down just past Pomona Rincon Road. Temporary impact would include the clearing of vegetation to provide space for the development of the Project but would not be fully developed. Vegetation would be allowed to reestablish after the completion of the viaduct structure. Permanent impacts would include the development of the viaduct foundation, substructure, and the maintenance of the vegetation in the areas under and adjacent to the viaduct structure. The maintenance of the vegetation that occurs under and adjacent to the viaduct structure would permanently alter the habitat such that it would not function as a habitat suitable for least Bell's vireo. Indirect impacts would include the removal of the existing Euclid Avenue roadway and levee from within the Prado Basin. This would allow for the regrowth and expansion of critical habitat into previously unvegetated areas.

Total impacts to southwestern willow flycatcher critical habitat would amount to 27.80 acres within the Project area as it extends from the northernmost extent down just past Pomona-Rincon Road. Temporary impact would include the clearing of vegetation to provide space for the development of the Project but would not be fully developed. Vegetation would be allowed to reestablish after the completion of the viaduct structure. Permanent impacts would include the development of the viaduct foundation, substructure, and the maintenance of the vegetation in the areas under and adjacent to the viaduct structure. The maintenance of the vegetation that occurs under and adjacent to the viaduct structure would permanently alter the habitat such that it would not function as a habitat suitable for southwestern willow flycatcher. Indirect impacts would include the removal of the existing Euclid Avenue roadway and levee from within the Prado Basin. This would allow for the regrowth and expansion of critical habitat into previously unvegetated areas.

The Project as proposed would impact a total of 40.23 acres of USFW designated critical habitat for both least Bell's vireo and southwestern willow flycatcher. Impacts to least Bell's vireo and southwestern willow flycatcher will require a minimum of 1:1 mitigation to impact ratio for habitat containing primary constituent elements to reduce impacts to a less than significant level. With implementation of **MM-BIO-3**, requiring that impacts to least Bell's vireo habitat is mitigated at a minimum of 3:1, impacts to critical habitat would be considered reduced to, and maintained at, a less than significant level.

5.8 Impacts on Federal and State Jurisdictional Waters and Wetlands

5.8.1 CDFW Jurisdictional Impacts

The Project study area supports approximately 21.31 acres of CDFW jurisdictional riparian/wetland resources and 0.58 acre of CDFW jurisdictional unvegetated streambed pursuant to Section 1602 of the California Fish and Game Code (CFGC; see **Figure 13 – CDFW Jurisdictional Impacts**). Project implementation would result in permanent impacts to approximately 4.51 acres of CDFW jurisdictional riparian/wetland resources and 1.63 acres of temporary impacts to CDFW jurisdictional riparian/wetland resources. As shown in Figure 13, approximately 0.58 acre of unvegetated streambed associated with Drainage Feature 1 and Feature 3 Chino Creek would be avoided.

Impacts to CDFW jurisdictional resources would require a Section 1602 Streambed Alteration Agreement from CDFW. Compensatory mitigation for permanent impacts to CDFW jurisdiction would be required as part of subsequent Section 1602 permitting requirements.

5.8.2 USACE Jurisdictional Impacts

The Project study area supports approximately 21.31 acres of USACE jurisdictional wetland WoUS and approximately 0.57 acre of USACE jurisdictional non-wetland WoUS (see **Figure 14 – USACE Jurisdictional Impacts**). Project implementation would result in approximately 4.51 acres of permanent impacts to wetland WoUS and approximately 1.63 acres of temporary impacts to wetland WoUS. As shown in Figure 14, approximately 0.57 acre of non-wetland WoUS associated with Drainage Feature 1 and Feature 3 Chino Creek would be avoided.

Impacts to USACE jurisdictional resources would require a Section 404 Individual Permit from USACE. Compensatory mitigation for permanent impacts to USACE jurisdictional resources would be required as part of subsequent Section 404 permitting requirements.

5.8.3 RWQCB Jurisdictional Impacts

The Project study area supports approximately 21.31 acres of RWQCB jurisdictional wetland waters and 0.57 acre of RWQCB jurisdictional non-wetland waters (see **Figure 15 – RWQCB Jurisdictional Impacts**). Project implementation would result in 4.51 acres of permanent impacts to RWQCB jurisdictional wetland waters and 1.63 acres of temporary impacts to RWQCB jurisdictional wetland waters. As shown in Figure 15, approximately 0.57 acre of non-wetland waters associated with Drainage Feature 1 and Feature 3 Chino Creek would be avoided.

Impacts to RWQCB jurisdictional resources would require a Section 401 Water Quality Certification permit from the RWQCB. Compensatory mitigation for permanent impacts to RWQCB jurisdictional resources would be required as part of subsequent Section 401 permitting requirements.

Impacts to CDFW, USACE, and RWQCB jurisdiction will require a minimum of 2:1 mitigation to impact ratio for USACE and RWQCB impacts and 3:1 for CDFW riparian habitat to reduce impacts to a less than significant level. With implementation of **MM-BIO-8**, impacts to jurisdictional resources would be reduced to, and maintained at, a less than significant level.

5.10 Noise Impacts

The proposed Project anticipates a temporary increase in auditory and vibratory, noise disturbances during the development phase of the Project. Temporary increases in noise disturbances would come from the equipment and processes necessary for the construction of the Project as designed including: vegetation removal, grading, construction of the foundation, construction of the substructure, construction of the

superstructure, and construction of the approach embankment. After the completion of the proposed Project development noise levels would return to similar levels documented before Project development. The post-Project development noise impacts would differ significantly from the pre-Project conditions due to the raised elevation of the viaduct superstructure. The raised elevation of the viaduct superstructure would cause road noise emitted from the structure to have a lessened impact on the surrounding sensitive receptors such as LBVI as compared to the existing Euclid Avenue roadway.

Temporary increases in noise disturbances produced by the potential development of the Project's construction activities would impact the State and Federally endangered species, least Bell's Vireo that is known to occupy the habitats within the Prado basin. This sensitive receptor would require mitigation measures to ensure that the species is protected from impacts as outlined in CESA and the Federal ESA.

Noise impacts to special-status species is potentially a significant impact, however, with implementation of **MM-BIO-9**, impacts from noise levels would be reduced to, and maintained at, a less than significant level.

6.0 MITIGATION MEASURES

The following provides recommended measures intended to minimize or avoid impacts to biological resources:

MM Bio-1 Focused Plant Surveys: Prior to commencement of Project development (site preparation, grading, construction) in areas that could support special-status plant species, the City of Chino shall employ a qualified biologist who shall conduct pre-construction focused plant surveys to determine and delineate on a graphic the location and extent of any special-status plant species occurrences within the Project site/Project area. The focused plant surveys shall occur during the typical blooming periods of special-status plants with potential to occur within the Project site/Project area. The focused plant surveys shall follow California Fish and Wildlife Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (November 2009).

MM Bio-2 Nesting Bird Surveys: If construction activities such as earthwork, clearing, grubbing, etc. cannot feasibly be conducted outside of the general bird nesting season for migratory birds and raptors (January 15 to September 15), a qualified biologist shall perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests. The pre-construction nesting bird survey shall be performed no more than three (3) days prior to the start of construction activities. The results of the pre-construction survey shall be documented by the qualified biologist(s) and submitted to the appropriate agencies (i.e., CDFW) prior to construction. The report shall include survey methods and results in addition to recommended avoidance and minimization measures if active nests are located.

If the qualified biologist determines no active migratory bird nests are present within 300 feet (500 feet for raptors and special status species) of project impacts, construction activities shall be allowed to proceed. If the qualified biologist determines an active migratory bird or raptor nest is present within the project area, no impacts within 300 feet (500 feet for raptors and special status species) of the active nest(s) shall occur until the young have fledged the nest and the nest is confirmed to no longer be active. The qualified biologist may modify the avoidance buffer or propose other recommendations to minimize or avoid disturbance to nesting birds.

MM Bio-3 Least Bell's Vireo: Prior to commencement of Project development activities, the City of Chino shall submit a Proposal for "take" compensation pertaining to permanent removal of riparian vegetation suitable for least Bell's vireo to appropriate Responsible/Trustee Agencies, who shall approve said Proposal prior to commencement of Project development. The Proposal shall stipulate permanent removal of riparian vegetation suitable for least Bell's vireo shall be replaced at a minimum ratio of 3:1, with compensation to occur at creation, enhancement, and/or restoration. Compensation may occur through a combination of one or more of the following: on-site enhancement, re-establishment, and/or creation; fee payment to other approved mitigation providers; off-site permittee-responsible mitigation; and/or other off-site mitigation within the Prado Basin or Santa Ana watershed. For all riparian habitat that would be temporarily removed during construction, restoration shall occur on-site or off-site at a 2:1 ratio through enhancement, re-establishment, and/or creation. The City of Chino shall coordinate compensation for occupied least Bell's vireo habitat with aquatic permitting mitigation requirements. Completion of compensation shall be completed prior to completion of Project development and prior to Project operation of the new bridge.

MM Bio-4 Focused Burrowing Owl Surveys: Prior to commencement of Project development (site-clearing and grading) activities, the City of Chino shall employ a qualified biologist who shall perform focused surveys to determine presence/absence of burrowing owl on the Project site in accordance with the 2012 California Department of Fish and Game (CDFG) Staff Report on Burrowing Owl Mitigation (supersedes the 1995 Staff Report). In accordance with the 2012 Staff Report, the focused surveys shall occur between February 1 and August 31. In addition, the selected qualified biologist shall conduct a Pre-Construction "Take" Avoidance Burrowing Owl Survey within 14 days prior to Project site disturbance. If burrowing owl are confirmed absent during the "Take" Avoidance Survey, ground-disturbing Activities shall be allowed to commence, and no further Mitigation will be required.

If burrowing own are detected during the "Take" Avoidance Survey, the City of Chino must consult with the California Department of Fish and Wildlife and shall apply for and secure an Incidental Take Permit (ITP) prior to any Project development activities.

MM Bio-5 Sensitive Fish and Herpetofauna: Prior to commencement of Project development (site-clearing and grading) activities, the City of Chino employed qualified biologist shall conduct pre-construction surveys in suitable habitat to determine the presence or absence of special-status reptile, amphibian, and/or fish species within the project impact area. These surveys shall be conducted in accordance with any required agency protocols. In addition, the following measures shall be implemented:

1) Exclusionary fencing with one-way funnels should be installed to prevent native species from entering the work areas while allowing them to leave;
2) A biological monitor should be present prior to and during construction to perform a pre-construction sweep and to relocate any native species encountered during initial ground disturbance to predetermined release locations beyond the exclusion fencing; and
3) Biological monitors should rake soils and duff at the base of trees along the edge of the roadway right-of-way in advance of grading activities and monitor during grading

to relocate legless lizards potentially exposed by soil disturbance to areas beyond the exclusion fence. In addition, a City-employed biologist shall prepare a Hazard Analysis Critical Control Plan which shall stipulate methods for preventing the spread of invasive species.

MM Bio-6 Sensitive Bat Species: Prior to commencement of Project development activities and if Project development activities are proposed with the bat maternity roosting season (April 1 to August1), the City of Chino shall employ a qualified biologist experienced with bats who shall conduct a Pre-Construction Survey within all suitable habitat within the Project site/area. The pre-construction survey shall be conducted 30 days prior to commencing construction activities and shall consist of two (2) separate surveys conducted no more than a week apart. The second and final survey should be conducted no more than seven (7) days prior to commencing construction activities. The pre-construction surveys should be conducted using a detector for echolocation calls, such as an Anabat bat detector system. The results of the pre-construction bat surveys shall be documented by the qualified biologist and submitted to the appropriate Responsible/Trustee Agencies for approval prior to commencement of Project development.

If the qualified biologist determines no sensitive bat maternity roosts are present, the construction activities shall be allowed to proceed without any further requirements. If it is determined sensitive bat maternity roosts are present, the following measures shall be implemented:

1. No construction activities shall occur within 300 feet of any sensitive bat maternity roosts. A qualified biologist shall clearly delineate any bat maternity roosts and any required avoidance buffers, which shall be clearly marked with flags and/or fencing prior to the initiation of construction activities.
2. If construction activities are proposed within 300 feet of a sensitive bat maternity roost, a biological monitor shall be required to observe the behavior of any roosting bats. The construction supervisor shall be notified if the construction activities appear to be altering the bats' normal roosting behavior. No construction activities will be allowed within 300 feet of bat maternity roosts until additional minimization measures are taken, as determined by the biological monitor in coordination with California Department of Fish and Wildlife. The biological monitor shall prepare written documentation of all monitoring activities and any additional minimization measures taken, which shall be submitted to California Department of Fish and Wildlife at the completion of construction activities.

MM Bio-7 Wildlife Movement: To the extent feasible, Euclid Avenue bridge structure should be designed with columns rather than pier walls to improve wildlife movement and encourage usage by wildlife.

MM Bio-8 Jurisdictional Resources: At an agreed time between the City of Chino and appropriate Responsible/Trustee agencies, the City of Chino shall agree to provide compensation for permanent impacts on Federal and State jurisdictional waters through a combination of one of more of the following: on-site enhancement, re-establishment, and/or creation; payment into an in-lieu fee program or other approved mitigation provider; permittee responsible mitigation; and/or other off-site restoration/mitigation within the Prado Basin or Santa Ana watershed. Compensation for the permanent loss of USACE non-wetlands

and State streambeds would occur at a minimum 2:1 ratio and for USACE wetlands and CDFW riparian habitat will occur at minimum 3:1 ratio. Temporary impacts on jurisdictional waters, wetlands, and State streambeds would occur on site at a 1:1 ratio.

MM Bio-9 Noise: If construction activities must occur within nesting season, the City shall employ a qualified acoustician shall monitor noise within established buffers around active nests, as directed by a qualified biologist. If the noise levels exceed 60 dB, or if the biologists determine construction activities are disturbing nesting behavior, noise attenuation measures shall be implemented. These measures may include but not limited to, the installation of noise barriers and noise reducing features on construction equipment, to ensure noise levels remain within acceptable levels at nest sites.

MM Bio-10 Crotch's Bumblebee: Prior to commencement of Project development activities, the City of Chino shall employ a qualified biologist familiar with Crotch's bumblebee behavior and life history to conduct a pre-construction presence/absence survey for Crotch's bumblebee prior to site disturbance. If the bumble bee were to be detected (or assumed present) within the development or disturbance footprint, then the City of Chino shall coordinate with California Department of Fish and Wildlife to address the extent of impacts and determine whether an Incidental Take Permit (ITP) would be required.

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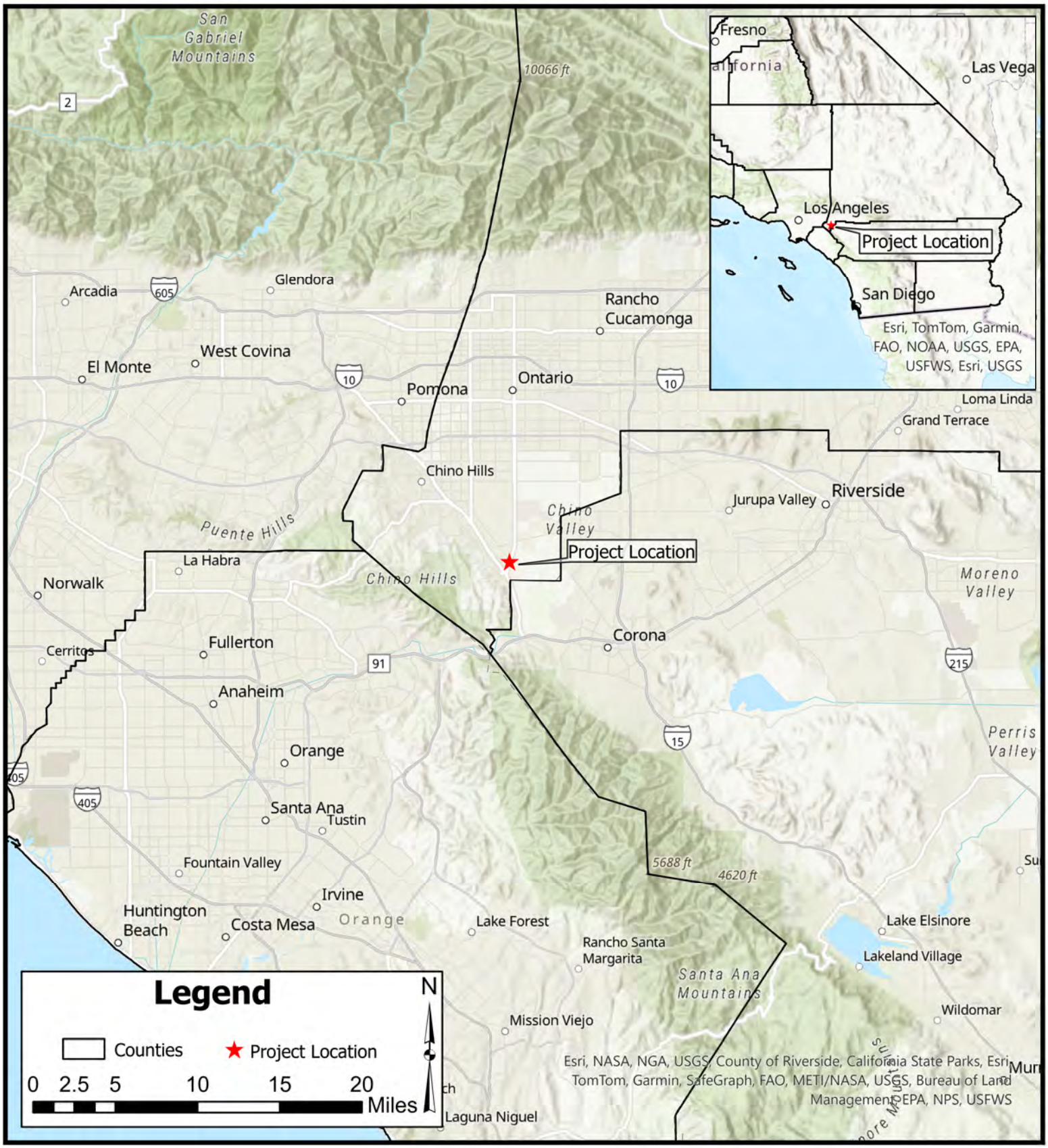
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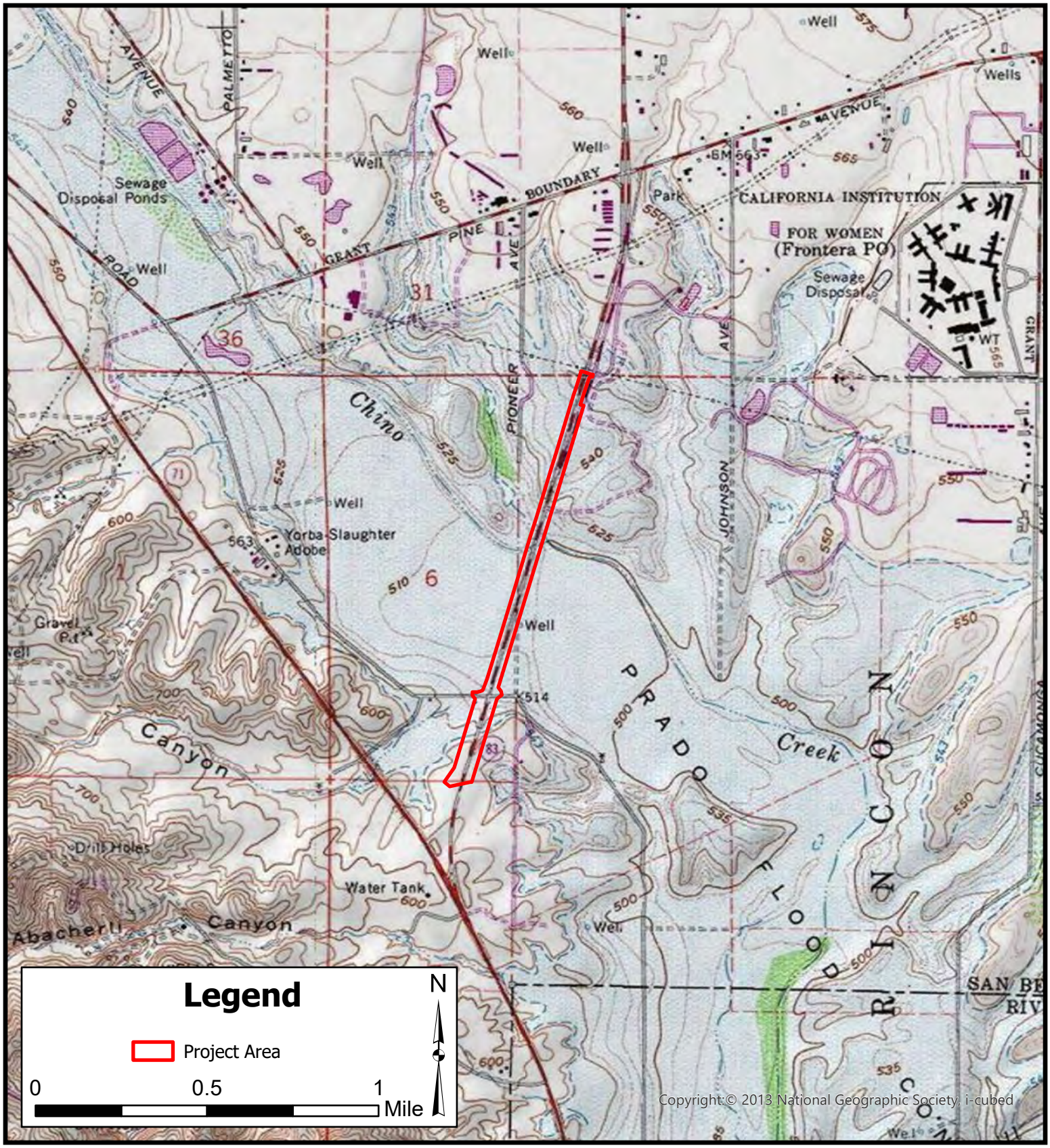
Attachment 1.
Figures



Euclid Avenue Bridge Project

Regional Map

Figure 1



Euclid Avenue Bridge Project

Site Vicinity Map

RVA

Figure 2



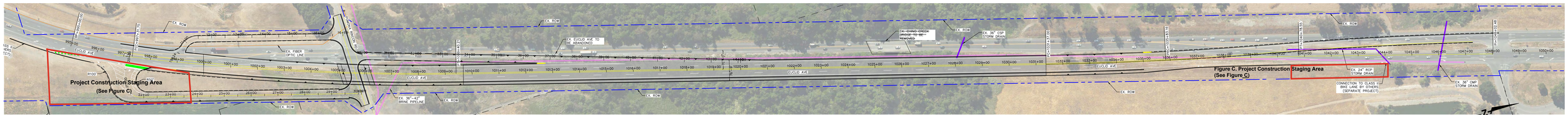
Pomona Rincon Road Interaction Improvements



Euclid Avenue Viaduct Rendering



Proposed Euclid Avenue Typical Roadway Section



EUCLID AVENUE BRIDGE PROJECT

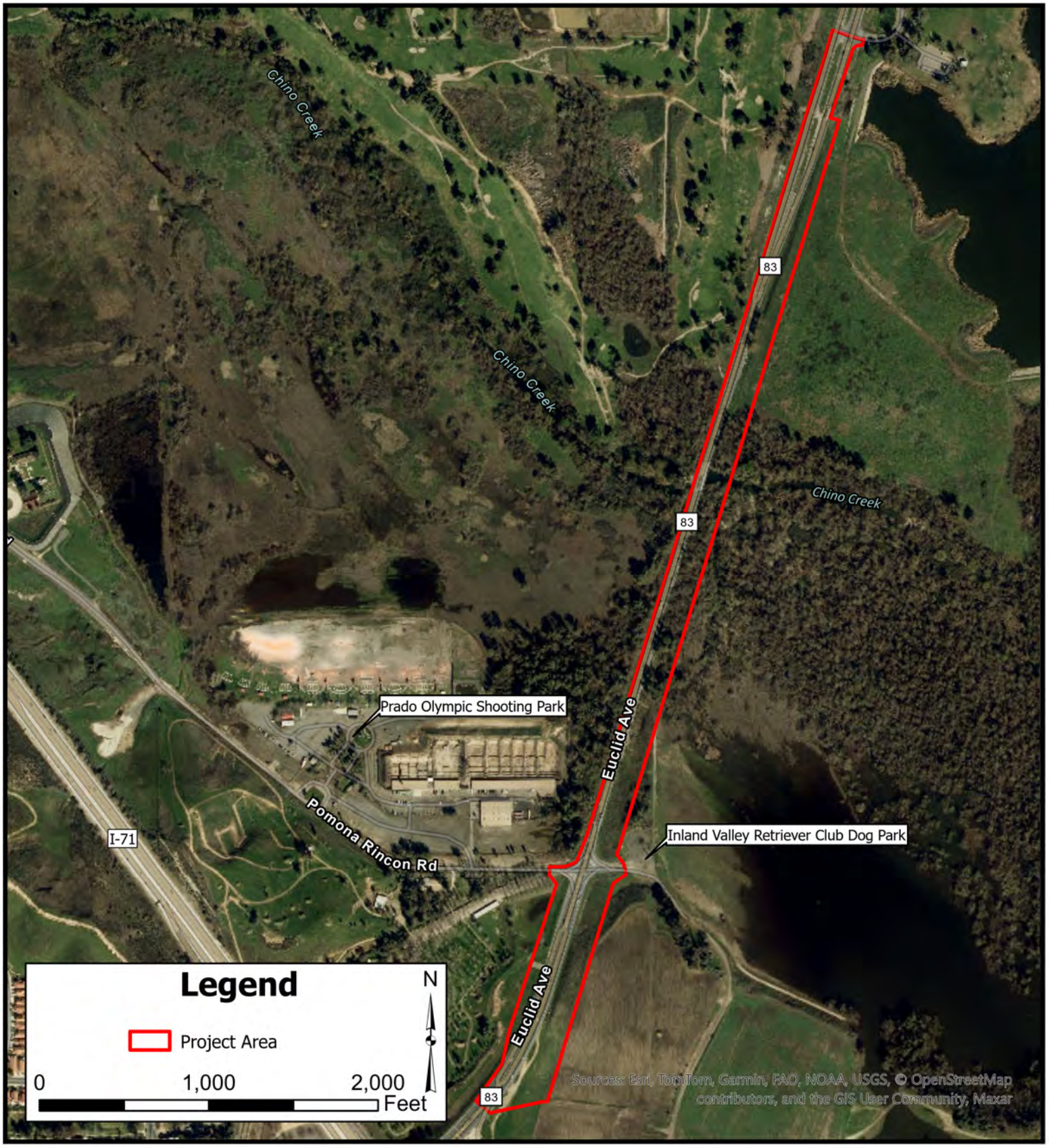
CITY OF CHINO

APRIL 2024

Project Characteristics

Figure 3

1" = 100'

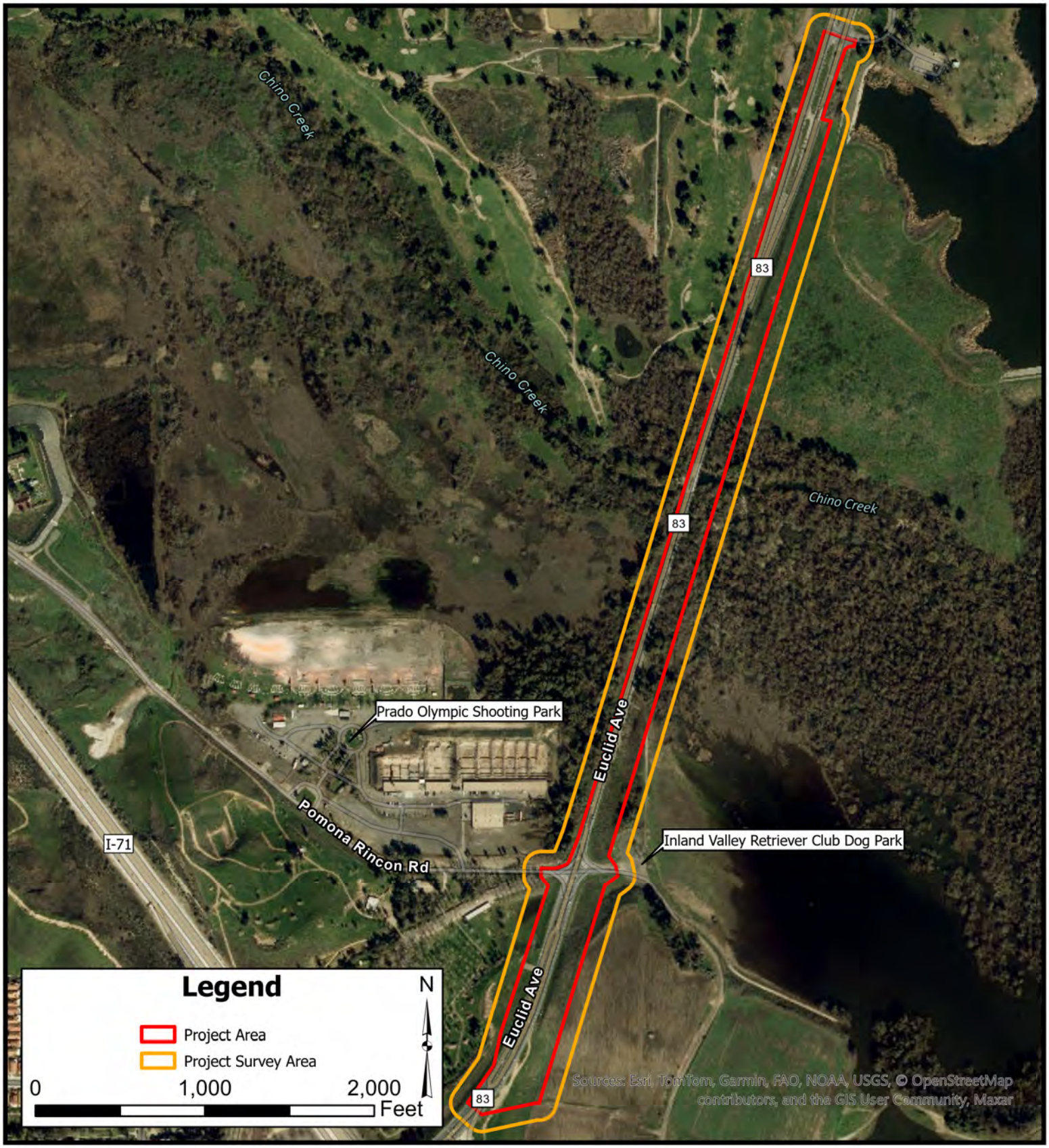


Euclid Avenue Bridge Project

Project Overview Map

RVA

Figure 4A

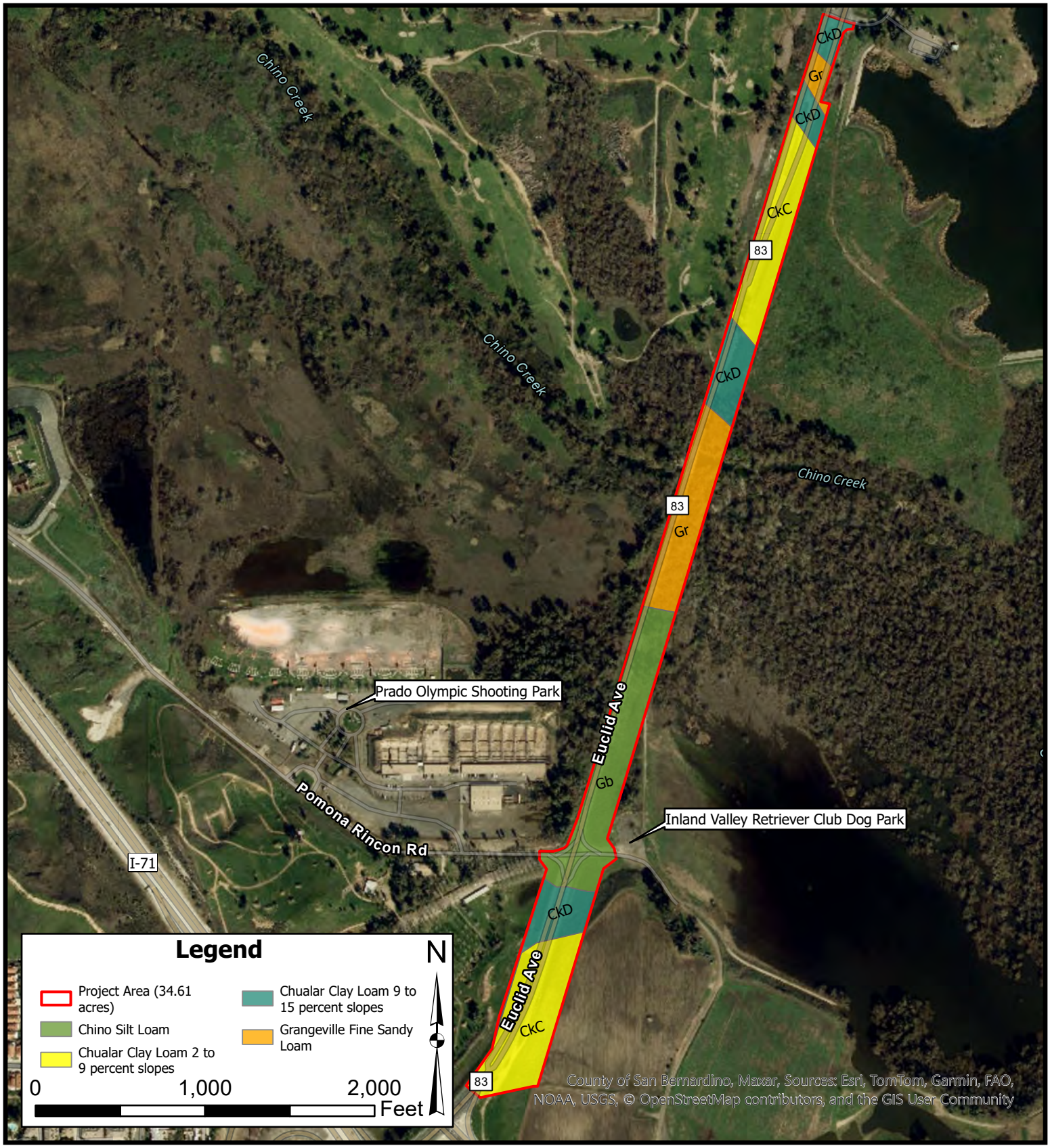


Euclid Avenue Bridge Project

Project Overview Map

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Figure 4B

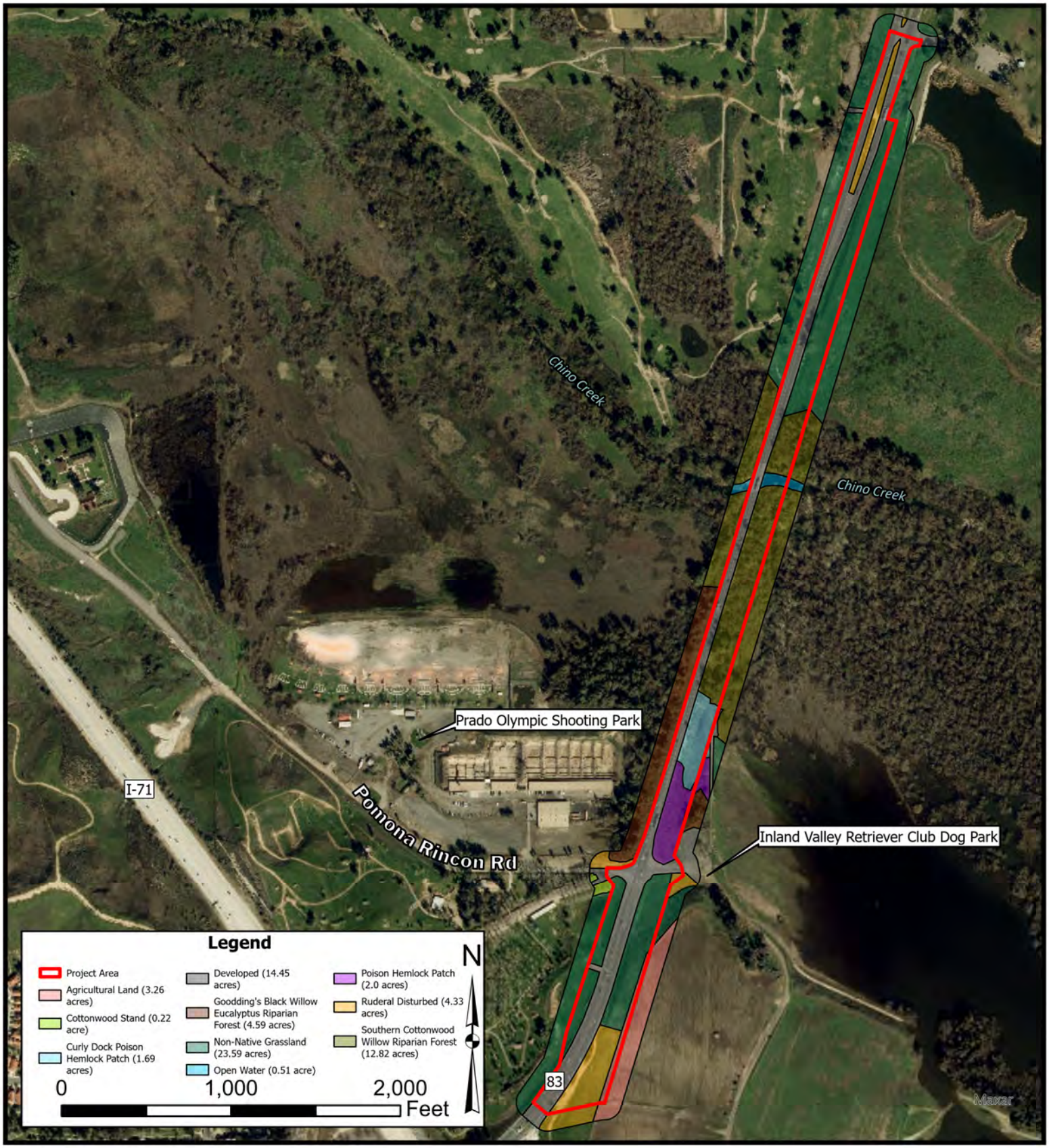


Euclid Avenue Bridge Project

Soils Map

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Figure 5

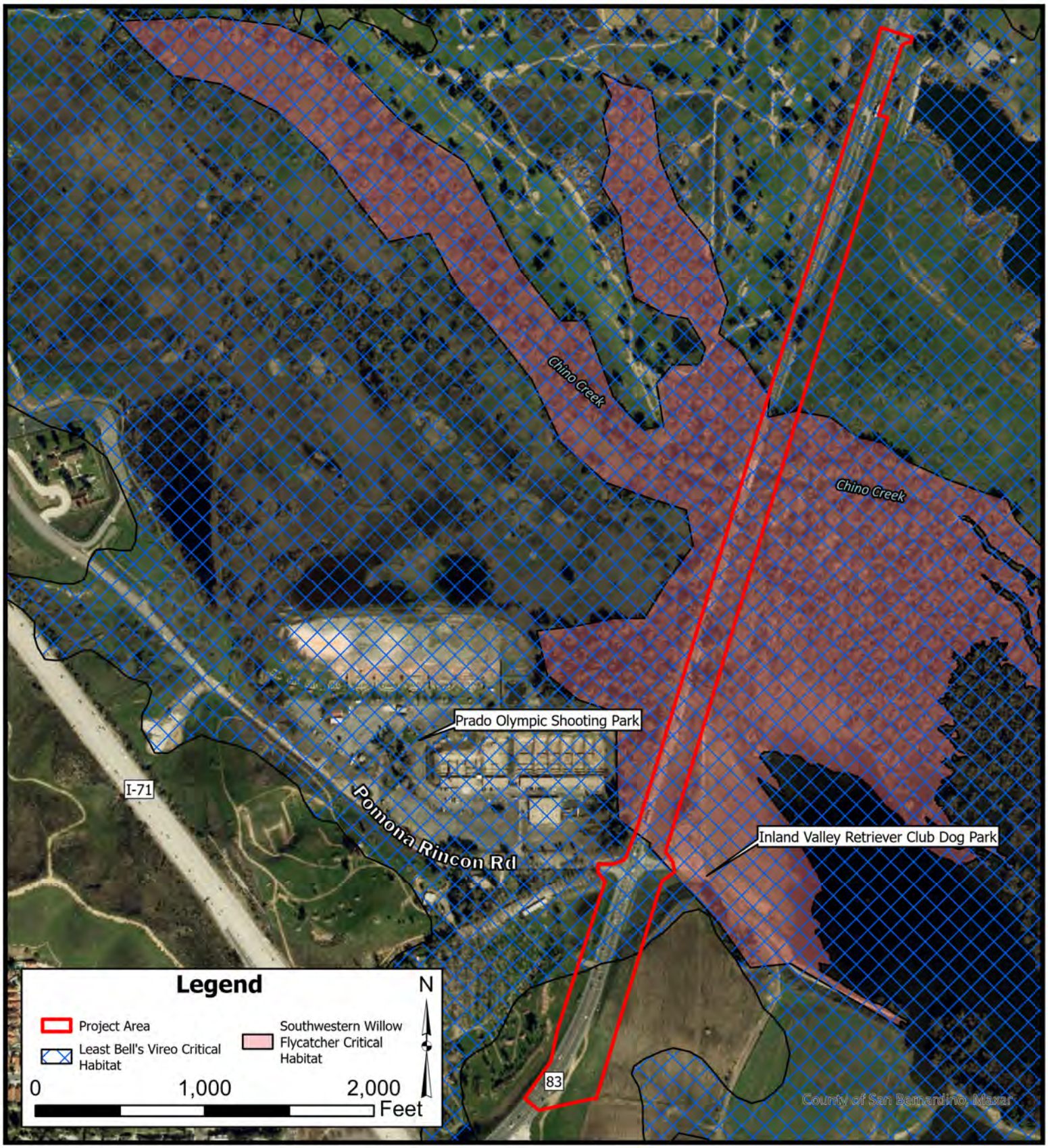


Euclid Avenue Bridge Project

Vegetation and Land Use Map

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Figure 6

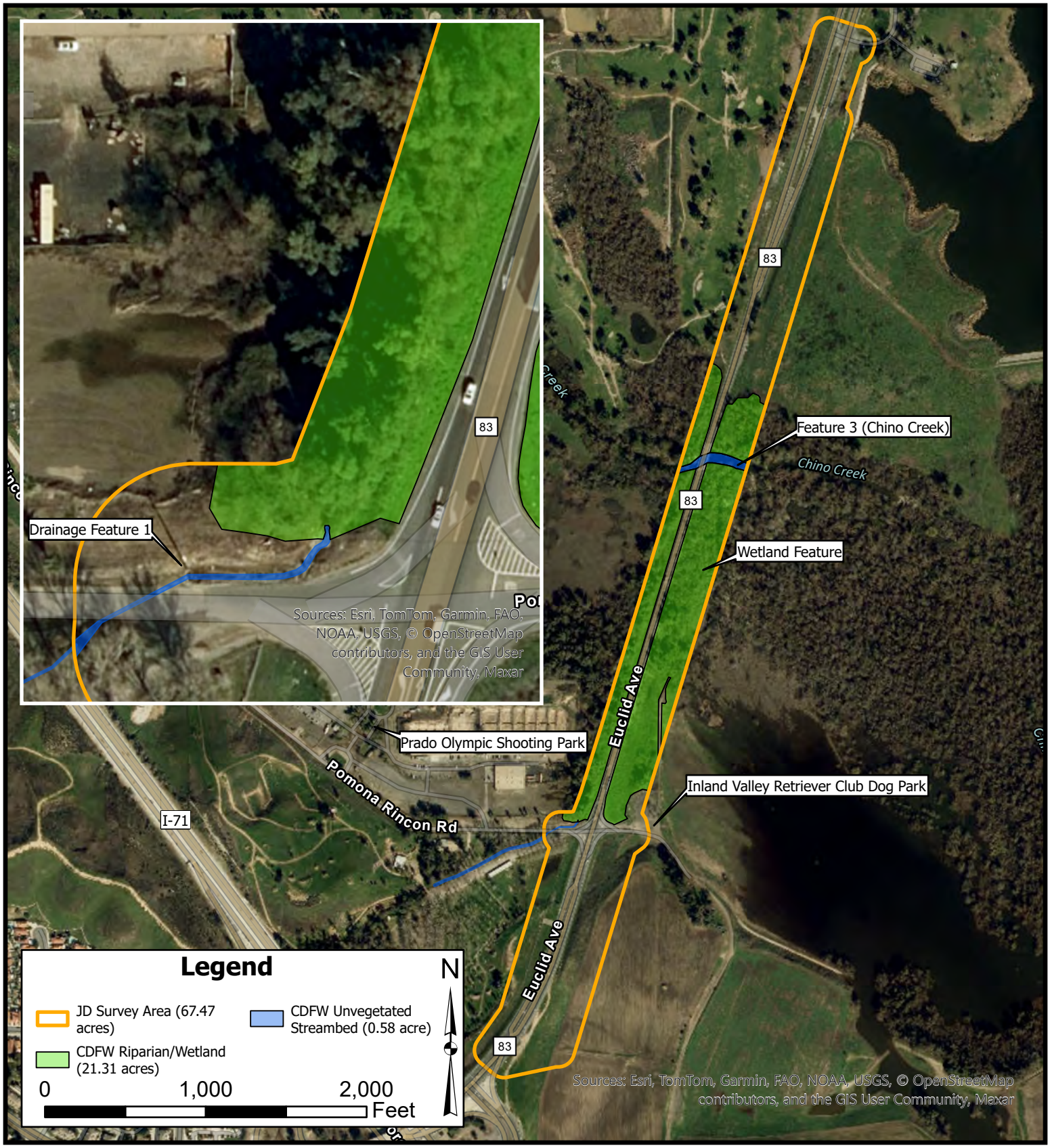


Euclid Avenue Bridge Project

Critical Habitat Map

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Figure 7

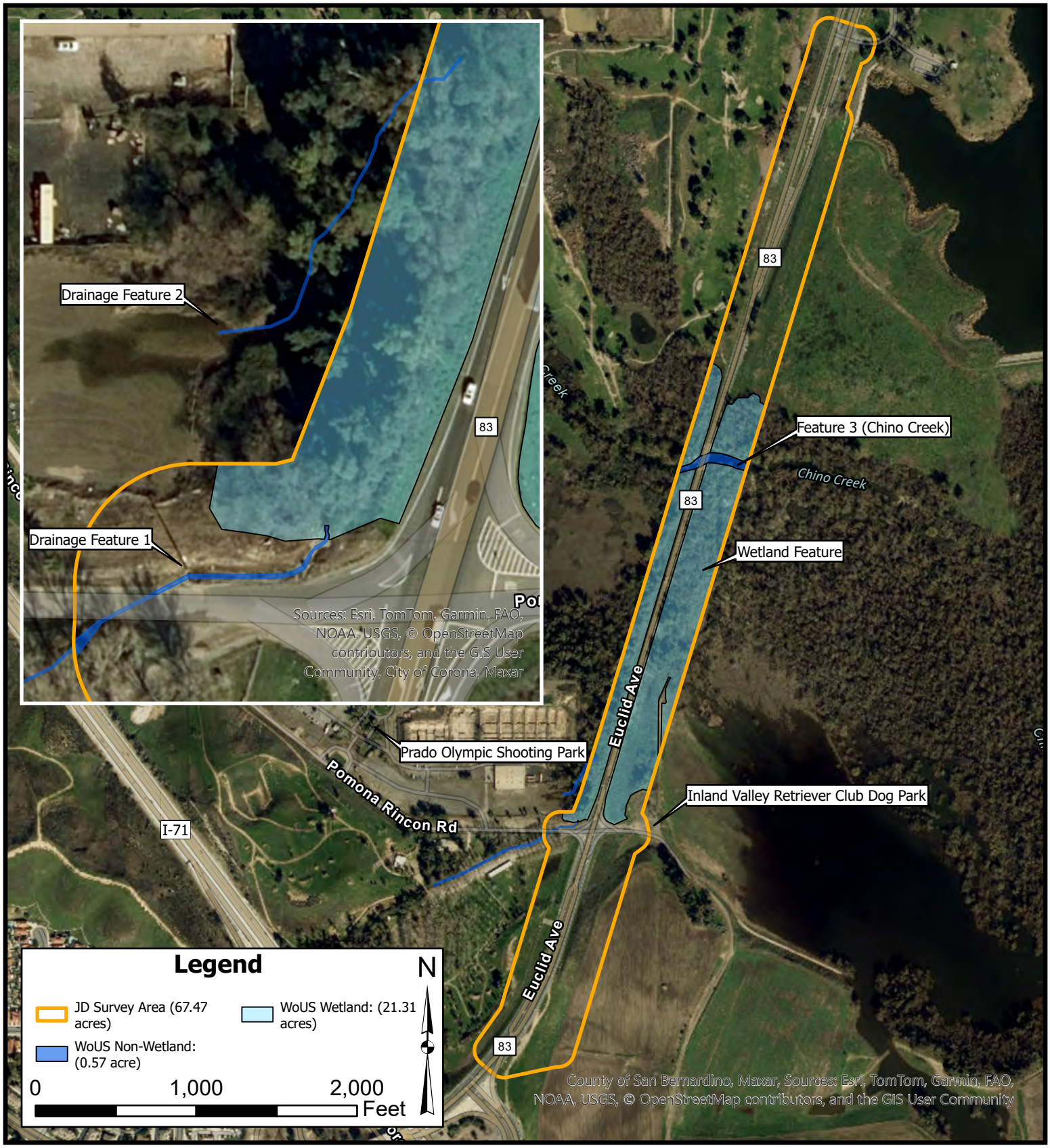


Euclid Avenue Bridge Project

CDFW Jurisdiction Map

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Figure 8

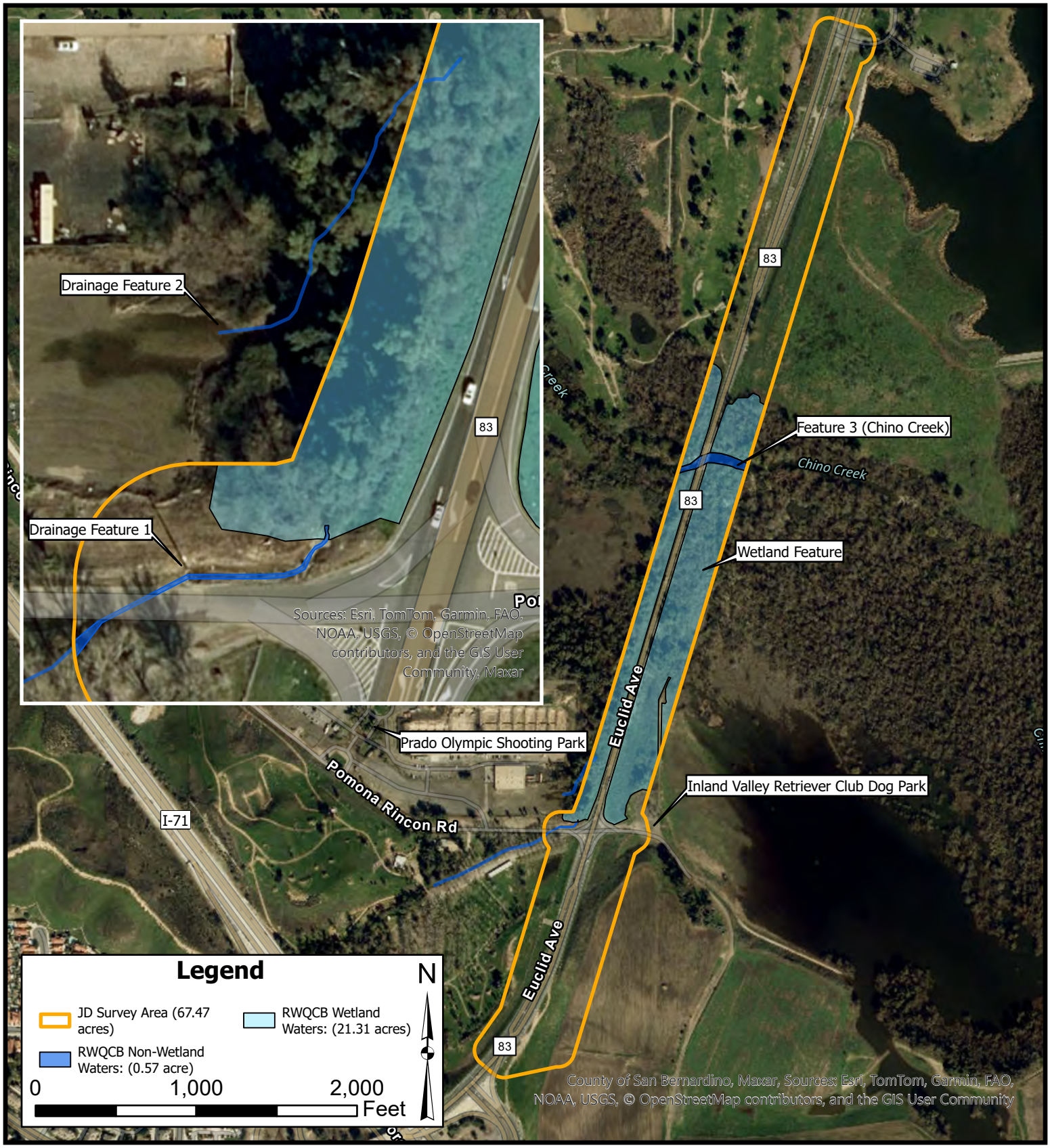


Euclid Avenue Bridge Project

USACE Jurisdiction Map

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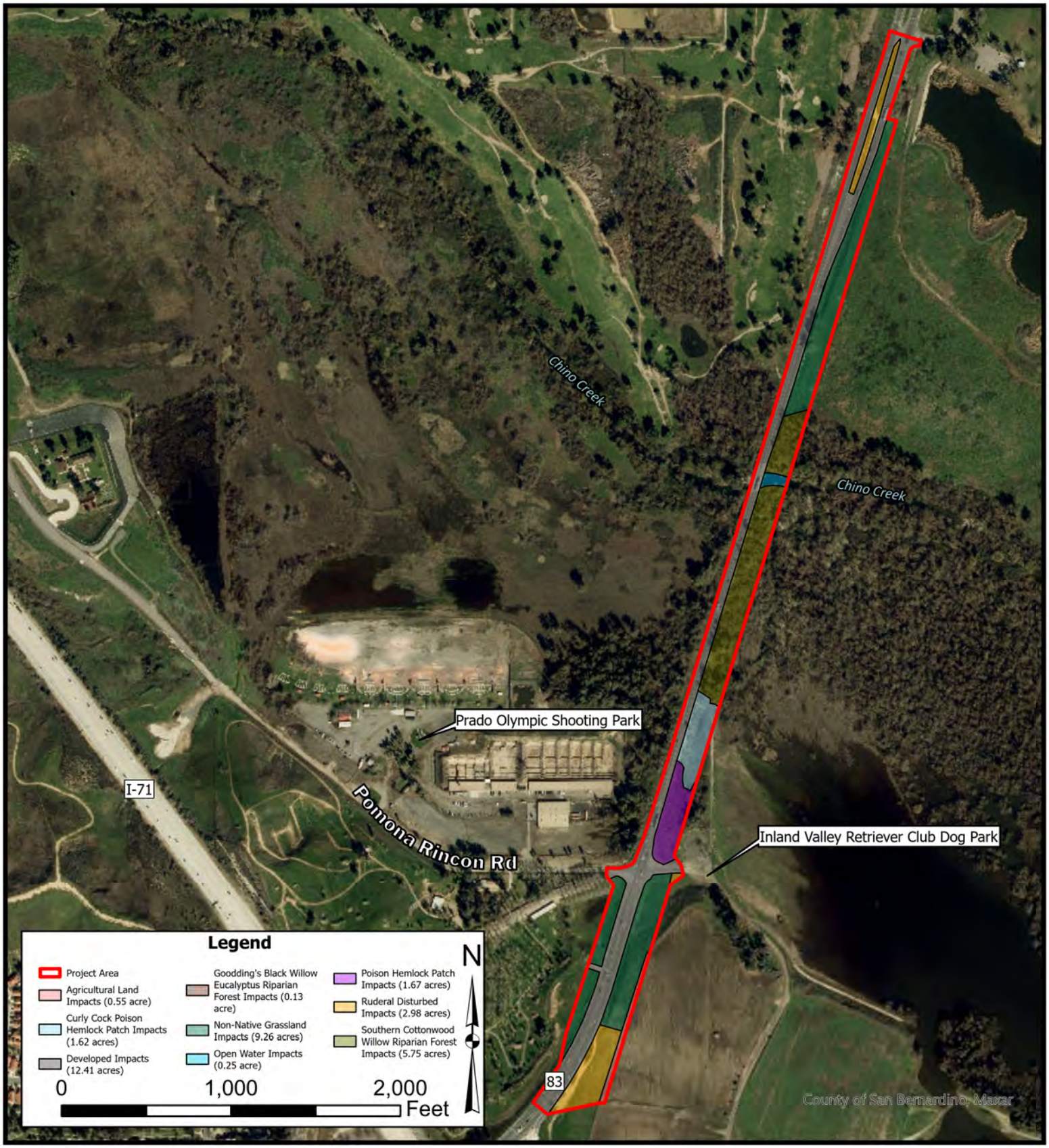
Figure 9



Euclid Avenue Bridge Project

RWQCB Jurisdiction Map

Figure 10

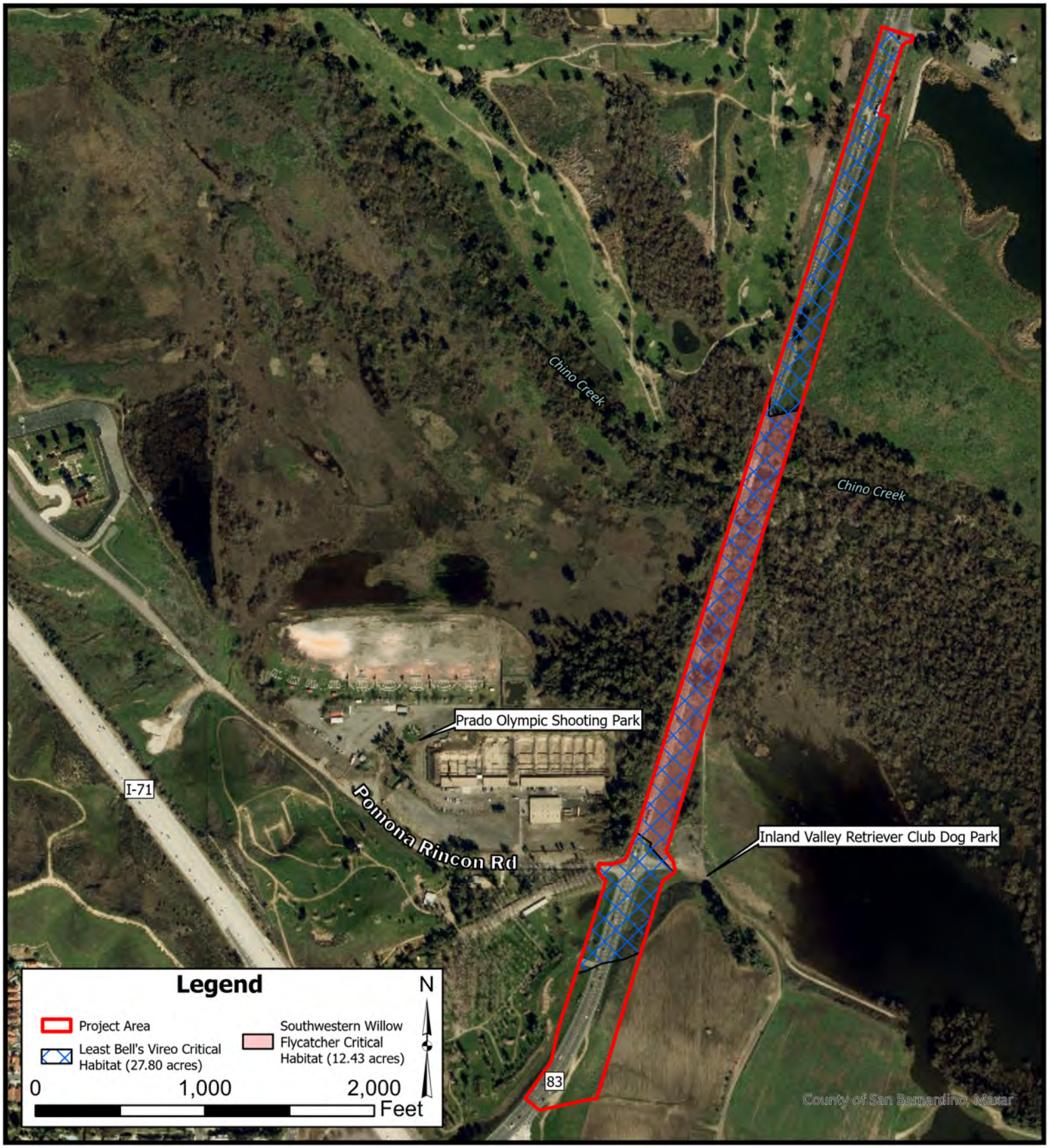


Euclid Avenue Bridge Project

Vegetation and Land Use Impact Map

RVA

Figure 11

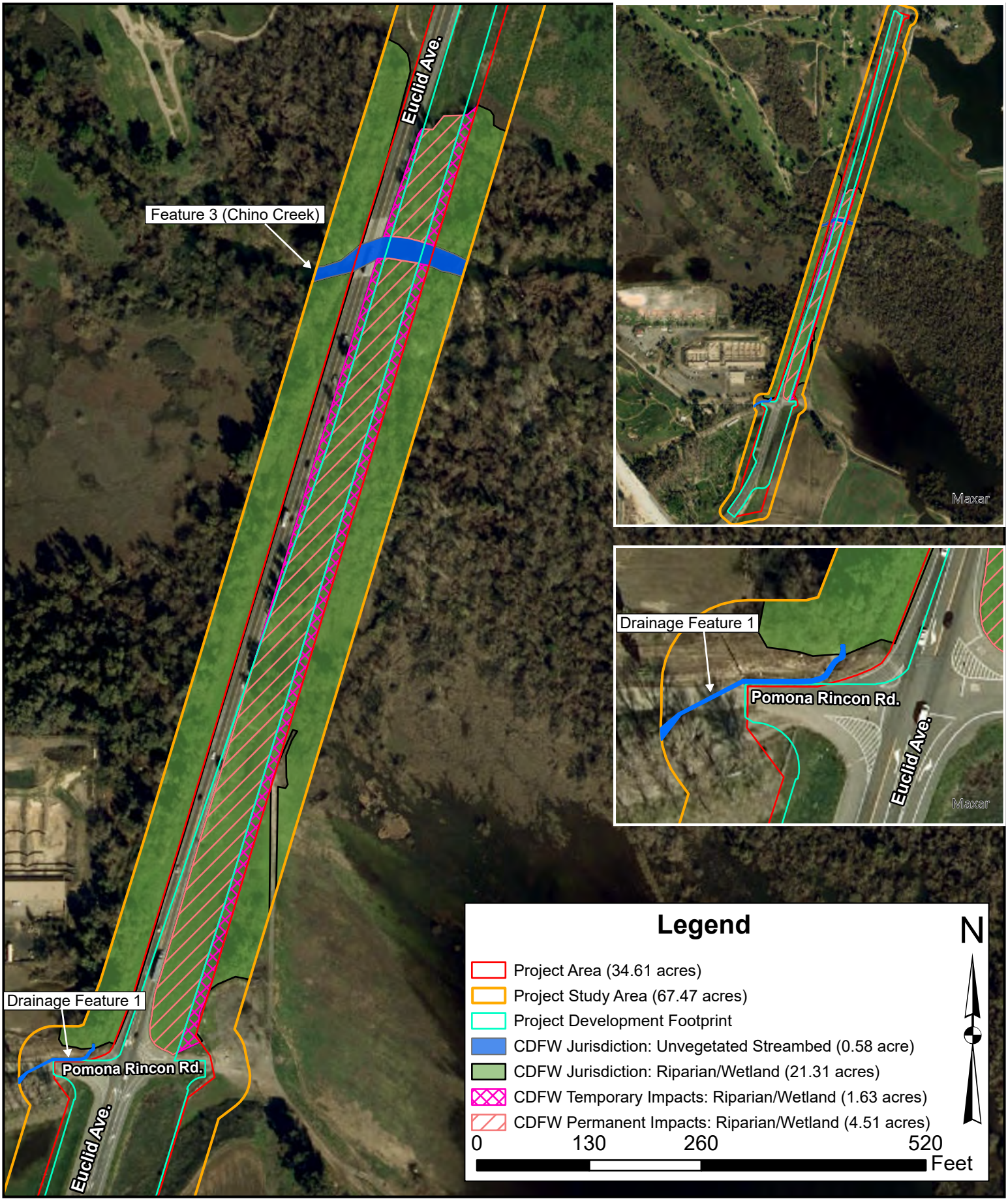


Euclid Avenue Bridge Project

Critical Habitat Map

RVA

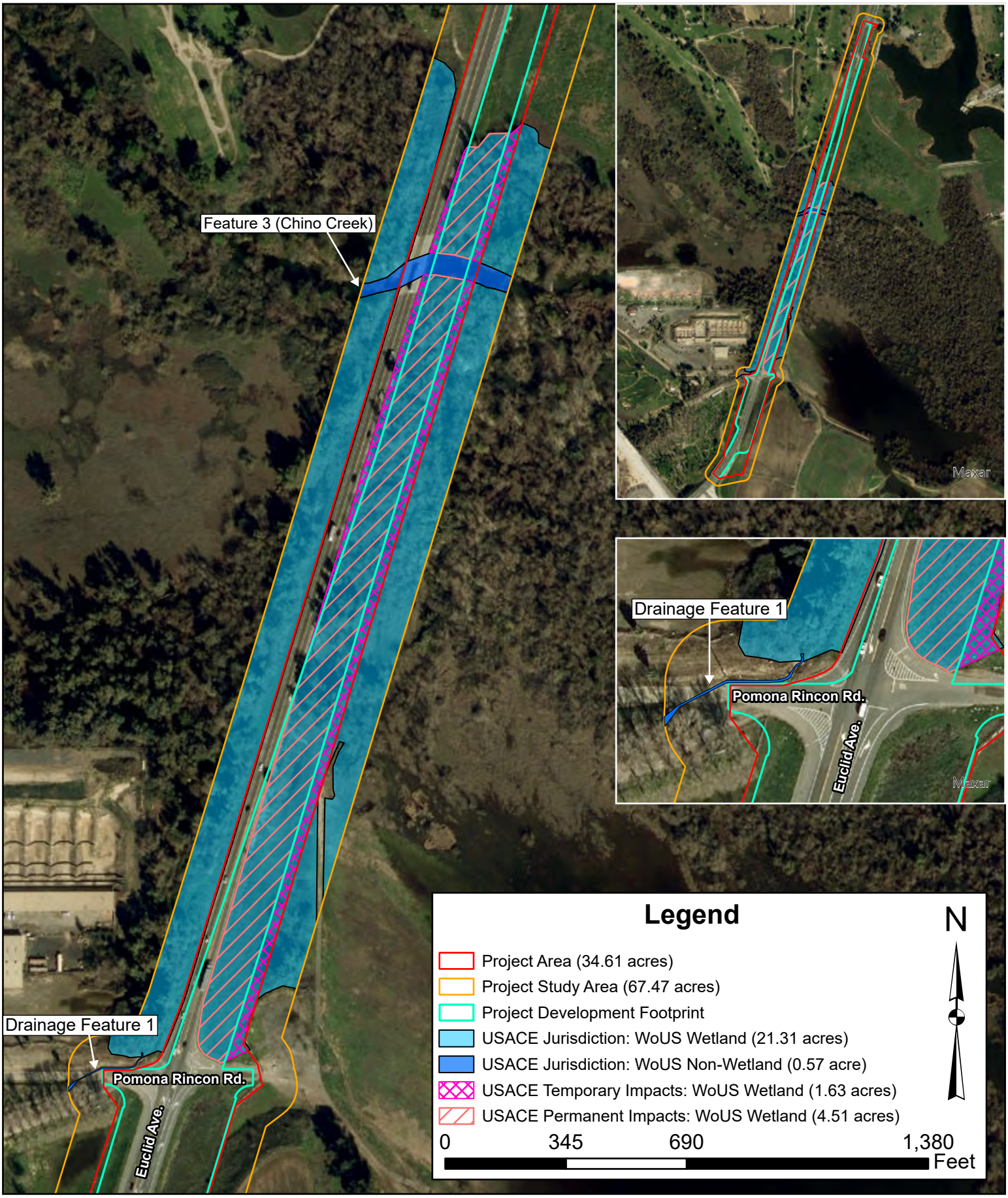
Figure 12



Euclid Avenue Bridge Project

CDFW Jurisdictional Impacts

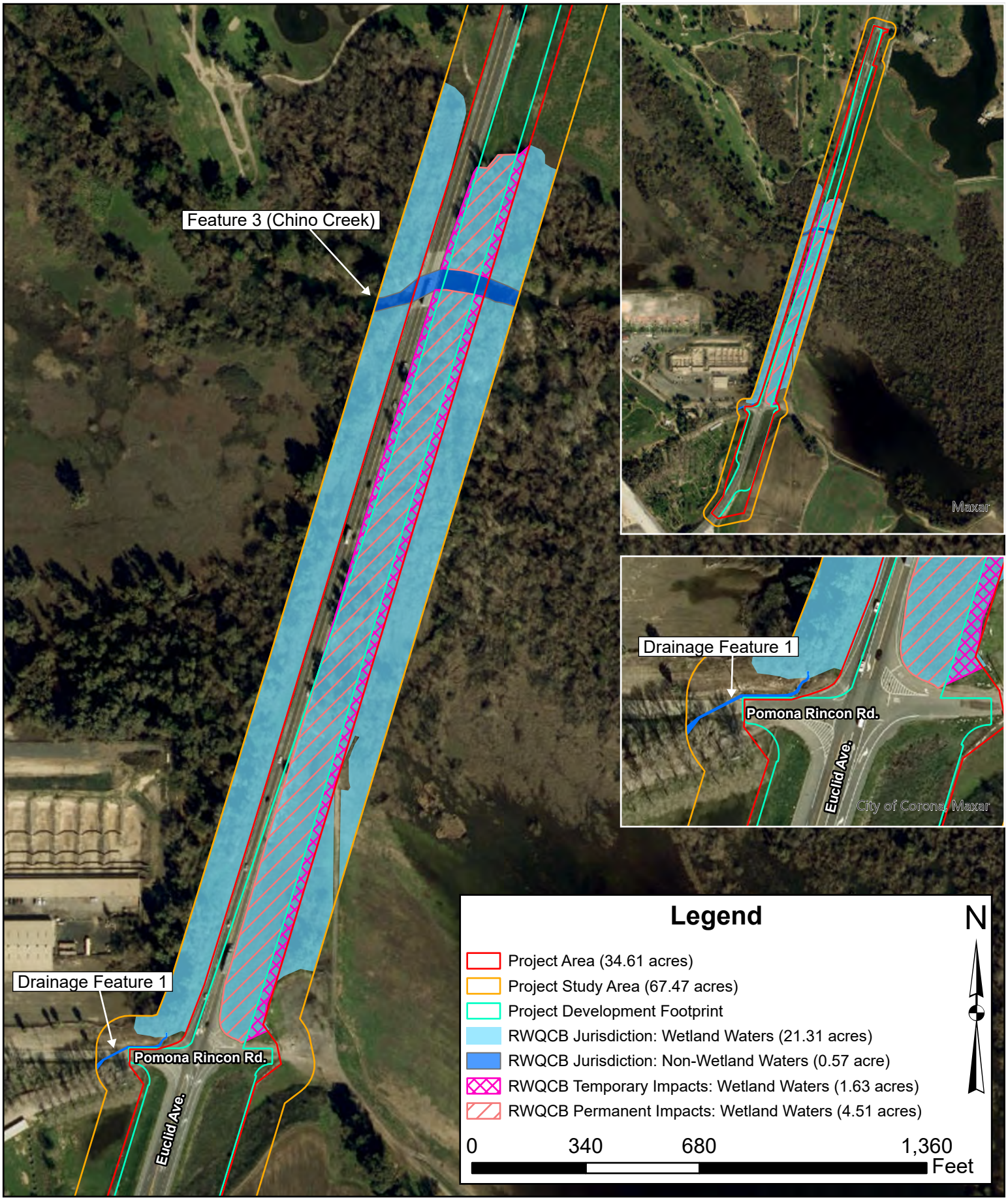
Figure 13



Euclid Avenue Bridge Project

USACE Jurisdictional Impacts

Figure 14



Euclid Avenue Bridge Project

RWQCB Jurisdictional Impacts

Figure 15

Attachment 2.
Potentially Occurring Sensitive Species

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Amphibian Species									
Spea hammondii	western spadefoot	Amphibians	Proposed Threatened	None	G2G3	S3S4	null	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland	LOW POTENTIAL TO OCCUR. Marginally suitable breeding habitat may be present in isolated backwater portions of the Prado Basin that do not have connectivity to the Chino Creek mainstem and lack predatory pressures. There are no records from the Prado Basin.
Avian Species									
Accipiter cooperii	Cooper's hawk	Birds	None	None	G5	S4	null	Cismontane woodland, Riparian forest, Riparian woodland, Frequents landscaped where wooded areas occur in patches and groves. Often uses patchy woodlands and edges with snags for perching.	HIGH POTENTIAL TO OCCUR. The Project site area as well as the immediate vicinity contain various tall trees, such as eucalyptus, that would provide perching areas for Cooper's hawks. The tall trees overlook open fields that were observed to be occupied by small rodents such as gophers and squirrels. This would constitute potential nesting and foraging habitat for the species. This species was not observed during the site's biological assessment.
Agelaius tricolor	tricolored blackbird	Birds	None	Threatened	G1G2	S2	null	Freshwater marsh, Marsh & swamp, Swamp, Wetland. Frequents fresh emergent wetlands. Nest may be located up to 4 mi from forging areas.	LOW POTENTIAL TO OCCUR. The Project site contains a marginally suitable foraging habitat. Open wetland marsh habitat adjacent to the project site in Prado Basin contains suitable nesting habitat, however, no colonies were observed during the biological surveys.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	None	None	G5T3	S4	null	Chaparral, Coastal scrub. Breeds and feeds on steep, dry, herbage-covered hillside with scattered shrubs and rock outcrops	LOW POTENTIAL TO OCCUR. Marginal quality habitat for this species occurs on the project site along the edges on the hillside of Prado Regional Park. The site and surrounding areas could provide the species foraging and/or nesting habitat within the disturbed non-native habitat that is present on and adjacent to the site. This species was not observed during the site's biological assessment nor does the species have recent CDNNB-documented occurrences within the immediate vicinity of the site.
Ammodramus savannarum	grasshopper sparrow	Birds	None	None	G5	S3	null	Valley & foothill grassland. Frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting.	NOT EXPECTED TO OCCUR. Mostly occurs along the southern coast in its southern California breeding range. The Project site lacks its preferred short to middle-height, moderately opened grasslands with scattered shrubs. This species was not observed during the site's biological assessment.
Aquila chrysaetos	golden eagle	Birds	None	None	G5	S3	null	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper	MODERATE POTENTIAL TO OCCUR. The Project site parcels area and immediate vicinity have tall and tree species, such as eucalyptus, that would

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
								woodlands, Upper montane coniferous forest, Valley & foothill grassland. Uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops	provide perching and foraging areas for golden eagles. This species was not observed during the site's biological assessment.
Artemisiospiza belli belli	Bell's sparrow	Birds	None	None	G5T2T3	S3	null	Chaparral, Coastal scrub. Breeds in fairly dense chaparral and desert scrub habitats and forages on ground beneath and between shrubs.	NOT EXPECTED TO OCCUR. The Project site does not contain coastal sage and chaparral habitat required by this species.
Asio otus	long-eared owl	Birds	None	None	G5	S3?	null	Cismontane woodland, Great Basin scrub, Riparian forest, Riparian woodland, Frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations.	HIGH POTENTIAL TO OCCUR. The Project site and immediate vicinity provide suitable nesting and roosting habitat within the dense stands of trees onsite.
Athene cunicularia	burrowing owl	Birds	None	Candidate for Threatened or Endangered under CESA	G4	S2	null	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojave desert scrub, Sonoran desert scrub, Valley & foothill grassland. Frequents open grasslands and shrublands with perches and burrows.	MODERATE POTENTIAL TO OCCUR. The Project site and the surrounding area provide moderate quality habitat for this species within the disturbed fields present on and around the Project site. Burrowing owl are known to occur throughout City of Chino.
Buteo swainsoni	Swainson's hawk	Birds	None	Threatened	G5	S4	null	Great Basin grassland, Riparian forest, Riparian woodland, Valley & open desert, grassland, or cropland containing scattered, large trees or small groves.	MODERATE POTENTIAL TO OCCUR. The Project site and surrounding area may provides suitable foraging habitat, however, the study area is located outside the nesting range for this species.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	None	None	G5T3Q	S2	null	Coastal scrub, Frequents deserts and other arid terrain with thickets, patches, or tracts of larger, branching cacti, stiff-twigged, thorny shrubs, and small tree	NOT EXPECTED TO OCCUR. The Project site and surrounding area do not provide suitable habitat types for this species.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	Threatened	Endangered	G5T2T3	S1	null	Riparian forest,: Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation.	HIGH POTENTIAL TO OCCUR. The Project sites large connected riparian habitat and permanent water source contains excellent conditions for this species, however, none were observed during the 2024 focused surveys for this species.
Coturnicops noveboracensis	yellow rail	Birds	None	None	G4	S2	null	Freshwater marsh, Meadow & seep	MODERATE POTENTIAL TO OCCUR. The Project sites adjacent freshwater marsh contains suitable habitat for this species. Potential nesting habitat along freshwater sedge marsh areas adjacent to Project site.

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Elanus leucurus	white-tailed kite	Birds	None	None	G5	S3S4	null	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland, Uses herbaceous lowlands with variable tree growth and dense population of voles. Substantial groves of dense, broad-leafed deciduous trees used for nesting and roosting	HIGH POTENTIAL TO OCCUR. The Project site as well as the immediate vicinity has dense stand of trees that would provide dense canapopies used for nesting and cover for white-tailed kites.
Empidonax traillii extimus	southwestern willow flycatcher	Birds	Endangered	Endangered	G5T2	S3	null	Riparian woodland, Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.	HIGH POTENTIAL TO OCCUR. The Project sites' large, connected riparian habitat and permanent water source contains excellent conditions for this species, however, none were observed during the 2024 focused surveys for this species.
Icteria virens	yellow- breasted chat	Birds	None	None	G5	S4	null	Riparian forest, Riparian scrub, Riparian woodland, Frequents dense, brushy thickets and tangles near water, and thick understory in riparian woodland.	PRESENT. Yellow-breasted chat were documented on the Project site and vicinity within the 2024 Focused Avian Surveys.
Laterallus jamaicensis coturniculus	California black rail	Birds	None	Threatened	G3T1	S2	null	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland, Dependent upon upper zones of saline emergent wetlands, especially with pickleweed, and brackish fresh emergent wetlands.	MODERATE POTENTIAL TO OCCUR. Moderate foraging and nesting habitat occurs on and adjacent to Project site within wetland areas and freshwater marsh areas.
Polioptila californica californica	coastal California gnatcatcher	Birds	Threatened	None	G4G5T3Q	S2	null	Coastal bluff scrub, Coastal scrub, low, dense coastal scrub habitat in arid washes, on mesas, and on slopes of coastal hills. California buckwheat, coastal sage, and patches of pricklypear are particularly favored.	NOT EXPECTED TO OCCUR. The Project site does not contain coastal scrub habitat required by this species.
Setophaga petechia	yellow warbler	Birds	None	None	G5	S3	null	Riparian forest, Riparian scrub, Riparian woodland, Open to Medium Density woodlands and Forest with heavy brush understory in breeding story.	PRESENT. Yellow warbler were documented on the Project site and surrounding vicinity within the 2024 Focused Avian Surveys.
Vireo bellii pusillus	least Bell's vireo	Birds	Endangered	Endangered	G5T2	S3	null	Riparian forest, Riparian scrub, Riparian woodland, Inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically associated with willow, cottonwood, baccharis, wild blackberry, or mesquite in desert localities.	PRESENT Least Bell's vireo were documented in many occurrences during the Focused Avian Surveys conducted in 2024.
Fish Species									
Catostomus santaanae	Santa Ana sucker	Fish	Threatened	None	G1	S1	null	Aquatic, South coast flowing waters	NOT EXPECTED TO OCCUR This species is known to occupy the Santa Ana River but requires fast-moving, well-oxygenated river sections with lithic diatoms as a food source. Stream conditions in Chino Creek are considered unsuitable and there are no known records.

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Gila orcuttii	arroyo chub	Fish	None	None	G1	S2	null	Aquatic, South coast flowing waters	LOW POTENTIAL TO OCCUR. This species is known to occupy the Santa Ana River and there are records from the Prado Basin. This species can tolerate lotic conditions for extended periods and marginally suitable habitat is present in the study area.
Oncorhynchus mykiss irideus	steelhead - southern California DPS	Fish	Endangered	Candidate Endangered	G5T1Q	S1	null	Aquatic, South coast flowing waters	NOT EXPECTED TO OCCUR This species is anadromous and requires stream connectivity to the Pacific Ocean.
Habitat Community Types									
California Walnut Woodland	California Walnut Woodland	Woodland	None	None	G2	S2.1	null	Cismontane woodland	NOT PRESENT ONSITE.
Southern California Arroyo Chub/Santa Ana Sucker Stream	Southern California Arroyo Chub/Santa Ana Sucker Stream	Inland Waters	None	None	GNR	SNR	null	Aquatic, South coast flowing waters	NOT PRESENT ONSITE.
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	None	None	G3	S3.2	null	Riparian forest	PRESENT ONSITE.
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	None	None	G4	S4	null	Riparian woodland	NOT PRESENT ONSITE.
Southern Willow Scrub	Southern Willow Scrub	Riparian	None	None	G3	S2.1	null	Riparian scrub	NOT PRESENT ONSITE.
Insect Species									
Bombus crotchii	Crotch's bumble bee	Insects	None	Candidate Endangered	G2	S2	null	Chaparral, Coastal scrub, Mojavean desert scrub, Valley & foothill grassland	MODERATE POTENTIAL TO OCCUR. The Project site's grassland areas and open wetland areas are suitable for foraging. The dense riparian forest associated with Chino Creek provides suitable overwintering habitat for Crotch's bumble bee.
Bombus pensylvanicus	American bumble bee	Insects	None	None	G3G4	S2	null	Coastal prairie, Great Basin grassland, Valley & foothill grassland	LOW POTENTIAL TO OCCUR. Grassland areas along Chino Creek may provide suitable habitat in a foraging capacity.
Mammalian Species									

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Dipodomys stephensi	Stephen's kangaroo rat	Mammals	Threatened	Threatened	G2	S3	null	Coastal scrub, Valley & foothill grassland, Sparse perennial vegetation with firm soil, "neither hard nor sandy"	NOT EXPECTED TO OCCUR. The Project site does not consist of any habitat that is associated with this species.
Eumops perotis californicus	western mastiff bat	Mammals	None	None	G4G5T4	S3S4	null	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland, Suitable habitat consists of extensive open areas with abundant roost locations provided by crevices in rock outcrops and buildings.	LOW POTENTIAL TO OCCUR. The Project site contains suitable foraging habitat. No suitable rock cliffs for maternity roost exists on Project site
Lasiurus xanthinus	western yellow bat	Mammals	None	None	G4G5	S3	null	Desert wash, Roosts and feeds in, and near, palm oases and riparian habitats.	MODERATE POTENTIAL TO OCCUR. The Project site contains trees suitable for roosting and open water areas suitable for foraging.
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	None	None	G5	S3	null	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran desert scrub, Prefers rocky desert areas with high cliffs or rock outcrops	NOT EXPECTED TO OCCUR. Pocketed free-tailed bats are primarily associated with desert areas. No suitable habitat occurs onsite.
Plant Species									
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	None	None	G5T2	S2	1B.1	Chaparral, Coastal scrub, Desert dunes	NOT EXPECTED TO OCCUR. No sandy desert habitat occurs on-site. This species is typically associated with creosote-bush and coastal sage scrub habitats.
Astragalus brauntonii	Braunton's milk-vetch	Dicots	Endangered	None	G2	S2	1B.1	Chaparral, Coastal scrub, Limestone, Valley & foothill grassland	NOT EXPECTED TO OCCUR. No coastal sage scrub, chaparral, or valley grasslands exist on the Project site.
Atriplex coulteri	Coulter's saltbush	Dicots	None	None	G3	S2	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley & foothill grassland	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	None	None	G3G4T3	S3	1B.2	Chaparral, Coastal scrub, Valley & foothill grassland	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Calystegia felix	lucky morning-glory	Dicots	None	None	G1Q	S1	1B.1	Meadow & seep, Riparian scrub	HIGH POTENTIAL TO OCCUR. Meadows and riparian habitat occur on the Project site. This species also has a documented CNDDB occurrence onsite.
Centromadia pungens ssp. laevis	smooth tarplant	Dicots	None	None	G3G4T2	S2	1B.1	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland	MODERATE POTENTIAL TO OCCUR. This species is typically associated with alkali soils of riparian or wetland areas. Smooth tarplant may occur in areas were there are saltgrass occurring.

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Dudleya multicaulis	many-stemmed dudleya	Dicots	None	None	G2	S2	1B.2	Chaparral, Coastal scrub, Valley & foothill grassland	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Dicots	Endangered	Endangered	G4T1	S1	1B.1	Chaparral, Coastal scrub	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	None	None	G5T3	S3	4.3	Chaparral, Coastal scrub	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Monardella australis ssp. jokerstiia	Jokerst's monardella	Dicots	None	None	G4T1	S1?	1B.1	Chaparral, Lower montane coniferous forest	LOW POTENTIAL TO OCCUR No suitable habitat occurs onsite, however, the CNDDB has an occurrence documented within the Project site.
Pseudognaphalium leucocephalum	white rabbit- tobacco	Dicots	None	None	G4	S2	2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	MODERATE POTENTIAL TO OCCUR. The Project site contains riparian woodland habitat associated with this species.
Sidalcea neomexicana	salt spring checkerbloom	Dicots	None	None	G4	S2	2B.2	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland	MODERATE POTENTIAL TO OCCUR. The Project site contains wetland habitat this species can be associated with.
Symphyotrichum defoliatum	San Bernardino aster	Dicots	None	None	G2	S2	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland	NOT EXPECTED TO OCCUR. No suitable habitat this species is associated with occurs on the Project site.
Reptile Species									
Actinemys pallida	southwestern pond turtle	Reptiles	Proposed Threatened	None	G2G3	SNR	null	Ponds, marshes, rivers, streams, and irrigation ditches.	MODERATE POTENTIAL TO OCCUR. Suitable aquatic and upland habitat is present in the study area and there are records from the Santa Ana River where it flows into the Prado Basin.
Anniella stebbinsi	Southern California legless lizard	Reptiles	None	None	G3	S3	null	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub	LOW POTENTIAL TO OCCUR. Limited marginally suitable habitat is present and there are known records in the Prado Basin.
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	None	None	G5	S2S3	null	Chaparral, Cismontane woodland, Coastal scrub	NOT EXPECTED TO OCCUR. This species occupies coastal scrub, mixed chaparral and foothill woodlands. No suitable habitat is present in the study area.

Potentially Occurring Sensitive Biological Resources: CNDDB Query Results (Prado Dam and Corona North Quadrangles)

Scientific Name	Common Name	Taxonomic Group	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Habitats	Potential to Occur on Site
Coleonyx variegatus abbotti	San Diego banded gecko	Reptiles	None	None	G5T5	S1S2	null	Chaparral, Coastal scrub	NOT EXPECTED TO OCCUR. This species requires rocky coastal scrub and granite outcrops.
Crotalus ruber	red-diamond rattlesnake	Reptiles	None	None	G4	S3	null	Chaparral, Mojavean desert scrub, Sonoran Desert scrub	NOT EXPECTED TO OCCUR. This species requires rocky areas in chaparral, woodland and arid scrub habitats.
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None	G4	S4	null	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland	LOW POTENTIAL TO OCCUR. Limited marginally suitable habitat is present in the study area and is isolated from occupied habitat in the foothills to the west of State Route 71.
Thamnophis sirtalis	South coast gartersnake	Reptiles	None	None	G5T1T2	S1S2	null	Artificial standing waters, Marsh & swamp, Riparian scrub, Riparian woodland, South coast flowing waters, South coast standing waters, Wetland	HIGH POTENTIAL TO OCCUR. Suitable habitat is present and there are records from the study area.

Status: Federal Endangered (**FE**), Federal Threatened (**FT**), Federal Candidate (**FC**), Federal Proposed (**FP, FPE, FPT**), Federal Delisted (**FD**), California Endangered (**CE**), California Threatened (**CT**,) California Species of Special Concern (**SSC**), California Fully Protected Species (**CFP**), California Special Plant (**CSP**), California Special Animal (**CSA**), NCCP Identified Species (**IS**), NCCP Target Species (**TS**), NCCP Conditionally Covered Species (**CCS**), **S1**= Critically Imperiled, **S2** = Imperiled, **S3** = Vulnerable, **S4** = Apparently Secure, **SH** = Historical Records.
CNPS Designations: **1B** = Rare threatened, or endangered in California and elsewhere **2B** = Rare, threatened, or endangered in California, but not elsewhere **3**= Not very endangered in California **4**= Plants of Limited Distribution –Watch List

Attachment 3.
Flora/Fauna Compendium

Flora/Fauna Compendium

This list documents plant and animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their growing seasons or survey timing.

Flora

Type	Family	Scientific Name	Common Name
Flora:	Native Species		
	Dicots		
	Asteraceae	*Baccharis salicifolia* *Erigeron canadensis* *Helianthus annuus* *Xanthium strumarium*	Mulefat Horseweed Annual sunflower Common Cocklebur
	Euphorbiaceae	*Croton setiger* *Euphorbiales*	Turkey mullein
	Juglandaceae	*Juglans californica*	Southern California walnut
	Malvaceae	*Malvella leprosa*	Alkali mallow
	Oleaceae	*Fraxinus sp.* *Fraxinus uhdei*	Eucalyptus sp. Shamel Ashes
	Onagraceae	*Oenothera*	Evening-primroses
	Platanaceae	*Platanus racemosa*	Western Sycamore
	Poaceae	*Phragmites australis* *Leymus triticoides* *Rumex crispus*	Common Reed Creeping Wild Rye Curly Dock
	Polygonaceae	*Polygonum amphibium* *Polygonum lapathifolium* *Persicaria hydropiperoides*	Water smartweed Curlytop knotweed Swamp smartweed

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Rosaceae	*Rubus ursinus*	California Blackberry
	Rubiaceae	*Galium sp.*	Bedstraw
	Sapindaceae	*Acer negundo*	Boxelder
	Salicaceae	Salix lasiolepis *Salix nigra* *Populus fremontii* *Salix laevigata*	Arroyo Willow Goodding's Black Willow Fremont Cottonwood Red Willow
	Urticaceae	*Urtica dioica* *Urtica urens* *Urtica dioica*	Small Nettle Annual Nettle Common Nettle
	Vitaceae	*Vitis californica*	California Wild Grape
	Monocots		
	Cyperaceae	*Cyperus sp.* *Schoenoplectus californicus*	Flatsedge California bulrush
	Poaceae	*Distichlis spicata*	Desert Saltgrass
	Non-Native Species		
	Dicots		
	Asteraceae	*Ambrosia artemisiifolia* *Ambrosia trifida* *Brassica nigra* *Centaurea melitensis* *Cirsium arvense* *Cirsium vulgare* *Euphorbia lathyrism* *Helminthotheca echioides* *Helichrysum italicum* *Sonchus oleraceus* *Taraxacum officinale* *Silybum marianum*	Common Ragweed Perennial Ragweed Black Mustard Menzies Fiddleneck Canada Thistle Bull Thistle Bladder Pod Vine Bristly Ox Tounge Camphorweed Common Sowthistle Dandelion Milk Thistle

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Apiaceae	*Conium maculatum*	Poison Hemlock
	Apocynaceae	*Araujia sericifera*	Cruel Vine
	Bignoniaceae	*Catalpa bignoniodes*	Southern Catalapa
	Brassicaceae	*Hirschfeldia incana* *Lepidium latifolium* *Raphanus sativus*	Short-pod Mustard Perennial pepperweed Radish
	Cannabaceae	*Ricinus communis*	Castor Bean
	Chenopodiaceae	*Dysphania ambrosioides* *Atriplex semibaccata*	Mexican tea Creeping saltbrush
	Euphorbiaceae	*Chamaesyce maculata*	Spotted Spurge
	Lamiaceae	*Marrubium vulgare*	White horehound
	Malvaceae	*Malva parviflora*	Cheeseweed Mallow
	Moraceae	*Ficus carica*	Common fig
	Myrtaceae	*Corymbia citriodora* *Eucalyptus camaldulensis* *Eucalyptus gunnii* *Eucalyptus robusta*	Lemon-scented gum Red Gum tree Cider gum eucalyptus Swamp mahogany
	Onagraceae	*Ludwigia peploides*	Floating Primrose Willow
	Salicaceae	*Populus deltoides* *Populus freemontii sp.*	Eastern Cottonwood Fremont Conttonwood
	Simaroubaceae	*Ailanthus altissima*	Tree of heaven
	Solanaceae	*Nicotiana glauca*	Tree Tobacco
	Tamaricaceae	*Tamarix ramosissima*	Tamarisk
	Tiliaceae	*Tilia americana*	American Linden

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Ulmaceae	*Ulmus parvifolia*	Chinese elm
	Urticaceae	*Urtica dioica* *Urtica urens*	Small Nettle Annual Nettle
	Monocots		
	Arecaceae	*Washingtonia robusta*	Mexican Fan Palm
	Poaceae	*Arrhenatherum elatius* *Arundo donax* *Avena fatua* *Bromus diandrus* *Bromus madritensis* *Bromus rubens* *Cynodon dactylon* *Digitaria sanguinalis* *Echinochloa crus-galli* *Hordeum murinum* *Paspalum dilatatum* *Setaria viridis*	Tall Oatgrass Arundo Wildoats Ripgut Brome Foxtail Chess Red Brome Bermuda Grass Crabgrass Water Smartweed Mouse Barley Tropical Ash Annual Rabbitsfoot Grass
	Typhaceae	*Typha spp.*	Cattail
	Conifers		
	Pinaceae	*Pinus virginiana*	Virginia Pine

Flora/Fauna Compendium

This list documents animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their activity patterns or limited observation time.

Fauna

Type	Family	Scientific Name	Common Name
	Amphibian Species		
	Bufonidae	*Anaxyrus boreas*	California Toad
	Hylidae	*Pseudacris hypochondriaca*	Baja California treefrog
	Ranidae	*Lithobates catesbeianus*	American Bullfrog
Fauna:	Avian Species		
	Accipitridae	*Accipiter cooperii* *Buteo jamaicensis* *Buteo lineatus* *Elanus leucurus*	Cooper's Hawk Red-tailed Hawk Red-shouldered Hawk White-tailed Kite
	Anatidae	*Aix sponsa* *Anas platyrhynchos* *Anas cyanoptera*	Wood Duck Mallard Cinnamon Teal
	Ardeidae	Ardea alba *Ardea Herodias* Butorides virescens *Egretta thula* Nycticorax nycticorax *Plegadis chihi*	Great Egret Great Blue Heron Green Heron Snowy Egret Black-crowned night heron White-faced Ibis
	Bombycillidae	Bombycilla cedrorum	Cedar Waxwing
	Cardinalidae	Passerina amoena Passerina caerulea Pheucticus melanocephalus Piranga ludoviciana	Lazuli Bunting Blue Grosbeak Black-headed Grosbeak Western Tanager
	Cathartidae	*Cathartes aura*	Turkey Vulture
	Charadriidae	*Charadrius vociferus* Himantopus mexicanus	Killdeer Black-necked Stilt
	Columbidae	*Columba livia* *Zenaida macroura*	Rock Pigeon Mourning Dove
	Corvidae	Aphelocoma californica *Corvus brachyrhynchos*	California Scrub Jay American Crow

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
		Corvus corax	Common Raven
	Emberizidae	*Melospiza melodia* *Passerina cyanea* Pipilo crissalis	Song Sparrow Indigo bunting California Towhee
	Estrildidae	*Lonchura punctulata*	Scaly-breasted Munia
	Falconidae	*Falco sparverius*	American Kestrel
	Fringillidae	*Spinus psaltria* *Spinus tristis*	Lesser Goldfinch American Goldfinch
	Hirundinidae	*Hirundo rustica* *Petrochelidon pyrrhonota* *Stelgidopteryx serripennis*	Barn swallow Cliff Swallow Northern Rough-winged Swallow
	Icteridae	*Agelaius phoeniceus* *Icterus cucullatus* *Icteria virens* *Icterus bullockii* Quiscalus mexicanus	Red-winged Blackbird Hooded Oriole Yellow-Breasted chat Bullock's Oriole Great Tailed Grackle
	Paridae	*Psaltriparus minimus*	Bushtit
	Parulidae	Cardellina pusilla *Geothlypis trichas* Leiothlypis celata *Setophaga coronata* *Setophaga petechia* Setophaga townsendi	Wilson's Warbler Common Yellowthroat Orange-crowned Warbler Yellow-rumped Warbler Yellow Warbler Townsend's Warbler
	Passeridae	*Carpodacus mexicanus* *Passer domesticus*	House Finch House Sparrow
	Passerellidae	*Chondestes grammacus* *Melozone crissalis* *Melospiza melodia*	Lark Sparrow California Towhee Song Sparrow
	Phalacrocoracidae	*Nannopterum auritum*	Double-crested Cormorant
	Picidae	*Dryobates pubescens* *Colaptes auratus* *Picoides nuttallii*	Downy's woodpecker Northern Flicker Nuttall's Woodpecker
	Polioptilidae	*Polioptila caerulea*	Blue-gray Gnatcatcher

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Rallidae	*Fulica americana*	American Coot
	Sturnidae	*Sturnus vulgaris*	European Starling
	Trochilidae	*Archilochus alexandri*	Black-Chinned Hummingbird
		Calypte anna	Anna's Hummingbird
		Selasphorus sasin	Allen's Hummingbird
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
		Troglodytes aedon	House Wren
	Turdidae	*Catharus ustulatus*	Swainson's Thrush
		Turdus migratorius	American Robin
	Tyrannidae	*Contopus sordidulus*	Western Wood-Pewee
		Empidonax difficilis	Western Flycatcher
		Myiarchus cinerascens	Ash-throated Flycatcher
		Pyrocephalus rubinus	Vermilion Flycatcher
		Sayornis saya	Say's Phoebe
		Sayornis nigricans	Black Phoebe
		Tyrannus verticalis	Western Kingbird
		Tyrannus vociferans	Cassin's Kingbird
	Tytonidae	*Tyto alba*	Barn owl
	Vireonidae	*Vireo bellii*	Least Bell's Vireo
		Vireo huttoni	Hutton's Vireo
	Bivalvia Species		
	Cyrenidae	*Corbicula fluminea*	Asian Clam
	Crustacean Species		
	Cambaridae	*Procambarus clarkii*	Crayfish
	Fish Species		
	Atherinopsidae	*Menidia beryllina*	Inland Silverside
	Centrarchidae	*Lepomis cyanellus*	Green sunfish
		Lepomis macrochirus	Bluegill
		Micropterus nigricans	Largemouth bass
		Micropterus punctulatus	Spotted bass
	Cyprinidae	*Cyprinus carpio*	Common carp
	Ictaluridae	*Ameiurus natalis*	Yellow bullhead
	Poeciliidae	*Gambusia affinis*	Western mosquitofish
		Poecilia latipinna	Sailfin molly
	Insect Species		
		Apis mellifera	Honey bee
		Forficula dentata	Winged Pincher bug
		Neoscona spp.	Orb Weaver
		Pieris rapae	Cabbage White Butterfly
	Mammalian Species		
	Canidae	*Canis latrans*	Coyote
	Geomyidae	*Thomomys bottae*	Botta's Pocket Gopher
	Procyonidae	*Procyon lotor*	Common Racoon
	Sciuridae	Otospermophilus beecheyi	California Ground Squirrel

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Suidae	*Sus scrofa*	Wild Boar
	Reptilian Species		
	Anguidae	*Elgaria multicarinata*	Southern alligator lizard
	Emydidae	*Pseudemys concinna* *Trachemys scripta elegans*	River cooter Red-eared slider
	Phrynosomatidae	*Sceloporus occidentalis* *S. occidentalis longipes* *Uta stansburiana*	Western Fence Lizard Great Basin fence lizard Side-blotched Lizard

Attachment 4.
Site Photos



Photo 1: Site conditions within area east of Euclid Ave. roadway, within area delineated as a wetland. Note visible surface water and curly dock.



Photo 2: Showing dense vegetation and rock riprap along east side of Euclid Ave. roadway, facing south.



Photo 3: Showing open water areas of Chino Creek from Euclid Ave. bridge crossing, facing northeast.



Photo 4: Showing transition in vegetation from riparian/wetland to non-native grasses at northern extent of riparian/wetland vegetation east of Euclid Ave.



Photo 5: Showing one of the wetland delineation test pits dug within the Project site area.



Photo 6: Showing site conditions in area south of Pomona Rincon Rd., near the entrance to the Prado Dog Park. Vegetation is primarily non-native.



Photo 7: Showing Drainage Feature 1 on south side of Pomona Rincon Rd. and west side of Euclid Ave., at entrance to archery range.



Photo 8: Showing Drainage Feature 1 on north side of Pomona Rincon Rd. and west side of Euclid Ave., at entrance to shooting range.

Attachment 5.
Jurisdictional Delineation

Euclid Avenue Bridge Project

City of Chino, San Bernardino County, California

Preliminary Jurisdictional Delineation Report

Prepared for:

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On behalf of

City of Chino Public Works Department
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1 INTRODUCTION

The following technical report provides the results of the preliminary jurisdictional delineation conducted by Ruth Villalobos & Associates, Inc. (RVA) for the proposed Euclid Avenue Bridge Over Chino Creek Project (Project). The preliminary jurisdictional delineation was performed to identify areas anticipated to be jurisdictional under the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act; the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and the Porter-Cologne Act; and under the California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game Code (CFGC) Section 1602. This information is necessary to evaluate potential jurisdictional impacts and permit requirements associated with the proposed Project and can be used by the agencies to assess the proposed Project's conformance with State and Federal regulations.

1.1 PROJECT LOCATION

The proposed Euclid Avenue Bridge Project (Project) site is located along Euclid Avenue (State Route 83) between Pine Avenue and State Route 71 (SR71) within the City of Chino (City), San Bernardino County, California. The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/SR71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82'), all entirely within the public right-of-way, as noted in Figure 1. Regional Map and Figure 2. Site Vicinity Map. This segment of Euclid Avenue is a major north-south route through the City that serves as an essential route for transport of goods and for connections to various parts of the Project site region. Euclid Avenue connects the cities of Chino Hills, Ontario, and other adjacent cities to Orange and Los Angeles counties via access to SR71, State Route 60, and State Route 91.

This portion of Euclid Avenue is located within the Prado Basin and crosses Chino Creek. The Project site is located within the northern portion of the Prado Flood Control Basin in San Bernardino County. The Project site is located entirely below the United States Army Corps of Engineers (USACE) designated 566-foot above mean sea level National Geodetic Vertical Datum (NGVD) 29 inundation elevation for Prado Dam. All land below this elevation is considered subject to flooding from normal operations of the Dam. In addition, the Project site overlaps the USACE and Orange County Water District Prado Basin Ecosystem Restoration and Water Conservation integrated Feasibility Report footprint for the Chino Creek Restoration activities and overlaps with a Congressionally-authorized restoration project that includes a native planting area.

The Project is also located within a USACE flowage easement. The USACE Los Angeles District presently is embarking on the Prado Dam Spillway Modification project that would raise the Dam and Spillway and thereby would increase the Prado Basin capacity.

1.2 Project Background

The existing Chino Creek Bridge does not have sufficient hydraulic capacity to accommodate a 100-year storm event without overtopping the Bridge. In addition, the section of Euclid Avenue between Pomona Rincon Road to south of the entrance to Prado Regional Park has only one lane in each direction, contains no median, contains narrow shoulders, and has no sidewalks or dedicated bike facilities. The portion of Euclid Avenue between Pine Avenue and SR71 is subject to flooding and road closures during storm events and has been the site of a number of traffic incidents. Records indicate that flooding has caused this stretch of Euclid Avenue to have been closed at least five times since January 2017. Traffic delays can be acute in that average daily traffic along Euclid Avenue in this area is approximately 32,500 vehicles. Detour routes are lengthy and can result in significant interruptions to passenger vehicles, trucks, bicycles, and pedestrian travels, inhibit access to local resources, and delay or prohibit provision of emergency services.

The Biggs Cardosa Associates, Inc. "Feasibility Study Report" (Report) prepared for the Project evaluated the Project area, different soil types within the Project area, and the potential presence of biological resources that may present potential constraints to construction costs and/or schedule. Four soil types were identified. Thirty-three special status plant species were documented in the Project site and/or vicinity; however, 25 of such were considered absent from the Project site. In addition, the Feasibility Report identified 47 special status wildlife species in the Project site vicinity; three species were deemed to have a low potential to occur on the Project site and 16 species were considered absent from the Project site. Furthermore, the Project site is located within United States Fish and Wildlife Services-designated critical habitat for the Federally and State endangered birds, the Least Bell's vireo and southwestern willow flycatcher.

The Feasibility Report also indicated that Chino Creek serves as a vital wildlife corridor connecting various habitats within the Project region to Prado Basin. The Chino Creek crossing at Euclid Avenue plays a role in facilitating movement of wildlife species, allowing animals access to resources such as food, water, and shelter and provides a contiguous route for animals to travel between Prado Basin and Chino Hills State Park. The existing Chino Creek Bridge was constructed in 2006 to replace an older deficient structure. The bridge is a two-lane, two-span, 144-ft long, precast concrete bridge. The structure is less than 20 years old and is in relatively good condition. The Project will not remove the existing bridge. It will instead be repurposed as a wildlife crossing across Chino Creek to provide better wildlife movement opportunities within the Prado Basin.

Chino Creek has been categorized as a blue-line stream on the Prado Dam USGS 7.5-minute quadrangle map. Chino Creek is a Waters of the US/State and streambed, which supports riparian vegetation and wetland features. Chino Creek is protected under the Federal Clean Water Act, Rivers and Harbors Act, California Porter-Cologne Water Quality Control Act, and California Fish and Game Code.

Project Description

The Project will address three primary goals:

1. To create a new "all-weather" facility that will not be subject to closures during storm events, and thereby:
    a. Improve safety for motorists and pedestrians by reducing the possibility of encountering flood waters.
    b. Enhance mobility and circulation for the community during the rainy season.
    c. Provide unhindered access for emergency vehicles.
2. To alleviate traffic congestion and remove roadway bottlenecks.
3. To provide active transportation facilities for improved cyclist and pedestrian access.

Additionally, the Project seeks to improve safety at the intersection of Euclid Avenue and Pomona Rincon Road through the addition of ramps and right-turn movements on and off of Euclid Avenue.

The Project site is approximately 20.5 acres in area. Project development would include elevating Euclid Avenue above the Prado Basin 50-year inundation pool elevation (543 feet above mean sea level). The Feasibility Study Report identified potential wetland and non-wetland waters of the United States along Euclid Avenue. A long bridge structure is desirable because a pile-supported bridge will reduce permanent biological impacts and in turn is anticipated to expedite USACE and regulatory agency permitting processes. The Project would include construction of a new viaduct structure (i.e. "Euclid Avenue Viaduct") that crosses above Pomona Rincon Road and over Chino Creek within the Prado Basin. Thereby, Project development would protect Euclid Avenue from flood waters associated with extreme rain events and allow the new roadway to remain open to traffic during storm events. Traffic circulation would be facilitated further by widening the new roadway to four lanes to match existing roadway capacity and by adding bicycle and pedestrian lanes. In addition, embankments supported by retaining walls will be constructed outside the limits of the Euclid Avenue Viaduct.

Project development would require an estimated 20,000 cubic yards of cut and 96,000 cubic yards of fill material. Cut material will not be suitable to use as fill. Therefore, fill material will be transported along existing roadways from areas outside the Project site. It is assumed the USACE will require the 76,000 cubic yards of imported fill material to be offset

with excavation/borrow elsewhere within the Prado Basin although the borrow location has not been determined.

The sensitive water and biological resources in the project area were taken into consideration during the Project's development and design with impacts to them minimized to the greatest extent feasible. Project development would limit permanent impacts in non-wetland waters of the United States to less than 0.5 acre and would limit permanent impacts in wetland waters of the United States to less than 0.1 acre. Retaining walls and imported fill soils will be installed outside the jurisdictional limits. Fill material is anticipated to be secured elsewhere in the Prado Basin, potentially within USACE federal lands and/or easements.

2 REGULATORY FRAMEWORK

2.1 FEDERAL

2.1.1 Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the USACE is authorized to regulate any activity that would result in the discharge or dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in Title 33, Section (§) 328.3 of the Code of Federal Regulations (CFR). The USACE, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. Section 401 of the CWA requires that applicants for Federal permits or licenses provide certification from the State that any discharges into waters of the U.S. will comply with State-established water quality standard requirements. Applicants/Requestors must obtain a Section 401 certification or waiver for a proposed project before the USACE can authorize a permit under Section 404 or Section 408.

River and Harbors Act

Section 10 of the River and Harbors Act regulates the construction of structures in or over any navigable WoUS or outside the defined limits of navigable WoUS if the structure or work affects the course, location, or condition of the water body. The law regulates disposal of dredged or fill materials, dredging, excavation, filling, modification and recanalization of WoUS and pertains to the smallest to the largest of construction undertakings including without limitation any aerial or subaqueous power transmission lines, aids to navigation, artificial canal, bank protection (e.g., riprap, revetment, bulkhead), boat ramp, boom breakwater, dolphin, groin, intake or outfall pipes, jetty, mooring structures such as pilings, permanently moored floating vessel, riprap, revetment, tunnel, weir, wharf. This section applies to all construction whether permanent, semi-permanent, or temporary.

Section 14 of the Rivers and Harbors Act of 1899, as amended, and codified in 33 U.S.C 408 (Section 408) provides that the Secretary of the Army may, upon the recommendation of the USACE Chief of Engineers, grant permission to other entities for the permanent or temporary alteration or use of any USACE Civil Works project. This requires a determination by the Secretary that the requested alteration would not be injurious to the public interest and would not impair the usefulness of the USACE project. The purpose of the Section 408 review is to ensure that the Congressionally-authorized purpose and benefits of the Civil Works project are protected and maintained (e.g., flood risk management, navigation, coastal storm damage reduction) and to ensure that what is being proposed is not injurious to the public interest.

Waters of the U.S.

On August 29, 2023, the USEPA and Department of the Army issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule published in the *Federal Register* on January 18, 2023. This final rule conforms the definition of "waters of the United States" (WoUS) to the US Supreme Court's May 25, 2023 decision in the case of *Sackett v. Environmental Protection Agency*. Parts of the January 2023 Rule are invalid under the Supreme Court's interpretation of the CWA in the *Sackett* decision. Therefore, the USEPA and Department of the Army have amended key aspects of the regulatory text to conform it to the Court's decision. The conforming rule, "Revised Definition of 'Waters of the United States,' Conforming," became effective on September 8, 2023 upon publication in the *Federal Register*. The USEPA's regulatory definition of the term "waters of the United States" under the 2023 Rule at 40 CFR 120 is as follows below. The Corp's identical definition is found at 33 CFR 328.3.

Per 40 CFR 120.2(a), "waters of the United States" means:

(1) Waters which are:
    i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    ii. The territorial seas; or
    iii. Interstate waters;
(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing, or continuously flowing bodies of water;
(4) Wetlands adjacent to the following waters:
    i. Waters identified in paragraph (a)(1) of this section; or

ii. Relatively permanent, standing, or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing, or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

Additionally, 40 CFR 120(b) states that the following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) above:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
(2) Prior converted cropland designated by the Secretary of Agriculture;
(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

Swales, erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

2.2 STATE

2.2.1 Regional Water Quality Control Board

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA, specifically for the discharge of waste (dredged or fill material) into WoUS. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a Federal license or permit, including a Section 404 permit. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over waters of the State of California (WSC), which are generally the same as WoUS but may also include waters not in Federal jurisdiction.

State Wetland Definition

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board, 2020).

The State Water Resources Control Boards define an area as wetlands as follows:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation*.

Waters of the State of California

The California Water Code defines broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." WSC includes all WoUS but also includes waters not in Federal jurisdiction.

The following wetlands are waters of the state:

1. Natural wetlands
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment or stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters,
        v. Agricultural crop irrigation or stock watering,

vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water,
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits);
xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy criteria set forth in 2, 3a, 3b, or 3c are not WSC.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides for Statewide coordination of water quality regulations. The State Water Resources Control Board was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis. The RWQCB is the primary agency responsible for protecting water quality in California. As discussed above, the RWQCB regulates discharges to surface waters under the Federal CWA. In addition, the RWQCB is responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the State is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if Section 404 is not required for the activity. "Waste" is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

2.2.2 California Department of Fish and Wildlife

CDFW regulates water resources under Sections 1600-1616 of the CFGC. Section 1602 states: "An entity may not 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 or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015)."

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of (1) definable bed and banks and (2) existing fish or wildlife resources. Furthermore, CDFW jurisdiction often extends to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that support hydrologic functions within the riparian system. CDFW jurisdiction typically does not include features without a discernible bed and bank, such as swales.

3 METHODOLOGY

3.1 LITERATURE REVIEW

Prior to the field delineation, RVA biologists conducted a desktop review of the U.S. Fish and Wildlife Service National Wetlands Inventory and geographic information systems datasets of mapped California Blue Line Streams, USGS topographic maps, soils map, and color aerial photographs to assist in determining the potential locations of jurisdictional aquatic resources. Google Earth Pro historical aerial imagery was also utilized to assess current and historic presence or absence of flow in the proposed Project area.

3.2 FIELD SURVEY

RVA biologists Miranda Villalobos, Justinne Manahan, and Zachary Jenson conducted a jurisdictional delineation of the proposed Project site on March 4th, 2024. The jurisdictional delineation, March 4th, was performed shortly after a rain event (e.g., the two days prior) though no rain occurred on the days of the delineation. Weather conditions on March 4th, included a starting temperature of 50 degrees Fahrenheit (^{O}F), partly cloudy skies, zero percent precipitation, 74 percent humidity, and no winds. A follow-up site visit occurred on October 22nd, 2024, to expand the survey area and confirm jurisdictional widths associated with Chino Creek and the associated wetlands within the Prado Basin. Weather conditions on October 22nd included a starting temperature of 76 ^{O}F, clear skies, zero percent precipitation, 35 percent humidity, and five (5) miles per hour winds. The scope of the field assessments included the proposed Project's area of disturbance and an approximately 100-foot survey buffer.

3.2.1 Jurisdictional Resources

3.2.2 Waters of the U.S.

Lateral limits of non-wetland WoUS/WSC subject to USACE and RWQCB jurisdiction, respectively, were identified using field indicators of an Ordinary High Water Mark (OHWM). RVA biologists utilized *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (USACE 2008) to estimate the extent of an OHWM in the field. For each feature that exhibited the potential presence of an OHWM, biologists completed a 2010 "Arid West Ephemeral and Intermittent Streams OHWM Datasheet" following the guidance provided in the *Updated Datasheet for the Identification of the OHWM in the Arid West Region of the Western United States* (USACE 2010). Per the 2010 OHWM Datasheet, common indicators of an OHWM include a break in slope (i.e., abrupt cut in bank slope created by hydrogeomorphic processes across the landscape), changes in average sediment texture between floodplain units (i.e., low-flow, active floodplain, low terrace), and changes in vegetation species and/or cover between floodplain units.

U.S. Army Corps of Engineers Jurisdictional Wetland

RVA biologists examined potential jurisdictional wetland areas on site using the methods provided in the USACE 1987 *Wetland Delineation Manual and the 2008 Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region Version 2.0* (Arid West Supplement). Areas that met the three (3) parameters per the Arid West Supplement, which are the presence of hydrophytic vegetation, hydric soils, and wetland hydrology, were considered WoUS/WSC. Biologists utilized the wetland plant indicator statuses (i.e., Obligate, Facultative Wetland, Facultative, Facultative Upland, and Upland) provided on the National Wetland Plant List (USACE 2016) and hydric soil indicators provided in *Field Indicators of Hydric Soils in the United States* (NRCS 2017). Soil chromas were identified in the field according to *Munsell's Soil Color Charts*.

State Jurisdictional Wetland

The State Water Board utilizes USACE documents collectively referred to as the "1987 Manual and Supplements, which includes the USACE 1987 *Wetland Delineation Manual* and the 2008 Arid West Supplement to determine whether an area meets the State definition of a wetland. Therefore, similar methods used to determine the presence of a USACE jurisdictional wetland were used to determine the presence of a State jurisdictional wetland. The State Water Board's "Procedures for Discharges of Dredged or Fill Material to Waters of the State" notes the USACE methodology shall be modified only to allow for the fact that the lack of vegetation does not preclude the determination of an area that meets the definition of a wetland.

California Department of Fish and Wildlife Jurisdictional Streambed

CDFW jurisdictional boundaries were determined based on the presence of riparian habitat and/or streambed. Streambeds considered within CDFW jurisdiction were delineated based on the definition of streambed as a "body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (CCR Title 14, Section 1.72). Riparian habitat refers to vegetation and habitat associated with a stream. CDFW jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

4 RESULTS

4.1 WATERSHED AND HYDROLOGY

According to the RWQCB's Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the proposed Project site is located within the Prado Basin Management Zone. The Prado Basin Management Zone is a surface water zone generally defined as the area within

the 566-foot elevation AMLS. Additionally, the proposed Project site is located within hydrologic unit code 12, lower Chino Creek, 180-702-0307-06, see Figure 3 Watershed Map. Beneficial uses (BU) associated with the Prado Basin Management Zone include BU Codes RARE, REC1, REC2, WARM, and WILD, which are described further below:

- RARE – Rare, Threatened, or Endangered Species: waters that support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.
- REC1 – Water Contact Recreation: waters that are used for recreational activities involving body contact with water where ingestion of water is reasonably possible.
- REC2 – Non-Contact Water Recreation: waters that are used for recreational activities involving proximity to water but not normally involving body contact with water where ingestion of water would be reasonably possible.
- WARM – Warm Freshwater Habitat: waters that support warmwater ecosystems that may include, but are not limited to, preservation and enhancement of aquatic habitats, vegetation, and fish and wildlife, including invertebrates.
- WILD – Wildlife Habitat: waters that support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

The proposed Project site is located within the lower Chino Creek approximately 35 miles from the channel's confluence with the Santa Ana River. The Santa Ana River conveys flows into the Pacific Ocean, a Traditionally Navigable Water (TNW), therefore establishing a nexus to navigable waters, as defined by USACE.

4.2 Topography and Soils

The topography of the proposed Project area is relatively flat, with elevations ranging from approximately 515 ft. AMSL to approximately 545 ft. AMSL. The proposed Project area primarily consists of the paved Euclid Avenue roadway and Chino Creek floodplain.

A review of the USDA Web Soil Survey indicates that the proposed Project area is comprised of four (4) soils types (see Figure 4 – Soils Map), which are described further below:

- Chino silt loam (Cb). The Chino series is characterized as poorly to somewhat poorly drained with slow to very slow runoff and moderately slow permeability.
- Chualar clay loam (CkC), 2 to 9 percent slopes. The Chualar series is characterized as being well drained with slow to medium runoff and moderately slow permeability.
- Grangeville fine sandy loam (Gr), warm mean annual soil temperature, major land resource area 19. The Grangeville series is characterized as consisting of very deep, somewhat poorly drained soils with negligible to very low runoff.

- Chualar clay loam (CkD), 9 to 15 percent slopes. As mentioned, the Chualar series is characterized as being well drained with slow to medium runoff and moderately slow permeability.
- Grangeville fine sandy loam (Gr). The Grangeville series is characterized as somewhat poorly drained with a very low runoff and moderately rapid permeability.

4.3 Site Conditions and Vegetation

4.3.1 Surrounding Land Uses

The proposed Project site primarily consists of the paved Euclid Ave. roadway, where the avenue crosses the Prado Basin. The majority of the surrounding area is open space that is in conservation for the preservation of the Prado Basin. The northern extent of the Project site is adjacent to the El Prado Golf Course and the Prado Reservoir Regional Park which are respectively to the west and east of the site. The southern extent of the Project site is adjacent to the Prado Olympic Shooting Park and the Oranco Bowmen Archery Range both of which are to the west of the site. The southern extent of the Project is also adjacent to the Inland Valley Retriever Club and agricultural fields both of which are to the east of the site.

4.4 Federal and State Jurisdictional Resources

The survey area was examined for evidence of potential jurisdictional resources and to determine the extent of any potential USACE, RWQCB, and/or CDFW jurisdictional resources. The potentially jurisdictional resources observed within the proposed Project area include two drainage features, Drainage Feature 1 and Drainage Feature 2, and a perennial stream feature, Chino Creek. Additionally, wetland features are present along Chino Creek and are situated adjacent to the creek. A description of each feature is further described below:

Drainage Feature 1: Drainage Feature 1 is a man-made, earthen and concrete ephemeral ditch that transports flows from the surrounding development. Drainage Feature 1 conveys flows in a west to east direction as it crosses under Pomona Rincon Road. Drainage Feature 1 eventually conveys flows to Chino Creek. A portion of this drainage feature is mostly unvegetated on the southwest side of Pomona Rincon Road. As it crosses under the road and converges with Chino Creek riparian habitat, species associated with the feature include: short pod mustard (*Hirschfeldia icana*), Russian thistle (*Salsola tragus*), and non-native grasses. No water was present in this feature at the time of the jurisdictional delineation.

Drainage Feature 2: Drainage Feature 2 receives runoff flows from the Chino Creek floodplain, including runoff flows from the Prado Olympic Shooting Park. Drainage Feature 2 eventually converges with Drainage Feature 1, eventually conveying flows to Chino Creek. Species associated with the feature include: Goodding's black willow (*salix gooddingii*),

poison hemlock (*Conium maculatum*), castor bean (*Ricinus communis*), and Lemon-scented gum (*Corymbia citriodora*). No water was present in this feature at the time of the jurisdictional delineation.

Drainage Feature 3 (Chino Creek): Chino Creek is a perennial earthen creek that eventually conveys flows to Prado Basin. It is designated as a blue-line feature on the USGS Prado Dam Topographic Map. Wetlands are located along Chino Creek, however, this feature has been mapped to include areas within the survey area that continuously convey flows. Flowing water was present during the time of the jurisdictional delineation.

Wetland Feature 1: Wetland Feature 1 is supported along Chino Creek where the surrounding soils stay moist for prolonged periods of time. It is designated as a wetland by the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) maps. This wetland system includes many smaller drainages throughout that are fed by Chino Creek and the surrounding floodplain. These small streams create a dynamic system, with a mix of flowing and stagnant water, saturated soils, and high water table, contributing to its function as a floodplain wetland. Dominant species associated with this feature included: Goodding's willow (*Salix gooddingii*), poison hemlock (*Conium maculatum*), great stinging nettle (*Urtica dioica*), California wild grape (*Vitis californica*), trailing blackberry (*Rubus ursinus*), rough cocklebur (*Xanthium strumarium*), southern cattail (*Typha domingensis*), and poison hemlock (*Conium maculatum*).

4.4.1 CDFW Jurisdictional Resources

Drainage Feature 1: Potential CDFW jurisdiction associated with Feature 1 totals approximately 0.03 acre (total of 254 linear ft.) of unvegetated non-riparian streambed. Bank to bank widths within CDFW jurisdiction range from approximately 15 ft. to 9.5 ft.

Drainage Feature 2: Potential CDFW jurisdiction associated with the channel totals approximately 0.01 acre (total of 42 linear ft.) of vegetated riparian streambed. Bank to bank widths within CDFW jurisdiction range from approximately 30.5 ft. to 13 ft.

Drainage Feature 3 (Chino Creek): Potential CDFW jurisdiction associated with Chino Creek within the Project study area totals approximately 0.55 acre of unvegetated streambed (total of 450 linear ft.). Bank to bank widths within CDFW jurisdiction is approximately 118 ft.

Wetland Feature 1: Potential CDFW jurisdiction associated with Chino Creek within the Project study area totals approximately 21.3 acre of riparian/wetland jurisdiction.

4.4.2 RWQCB Jurisdictional Resources

Drainage Feature 1: Potential RWQCB jurisdiction associated with Drainage Feature 1 totals approximately 0.02 acre (total of 254 linear ft.), none of which consists of state jurisdictional wetlands. The OHWM within the drainage feature is approximately 14 ft. to 8.5 ft. wide.

Drainage Feature 2: Potential RWQCB jurisdiction associated with Drainage Feature 2 totals approximately 0.01 acre (total of 42 linear ft.), none of which consists of state jurisdictional wetlands. The OHWM within the drainage feature is approximately 27 ft. to 10 ft. wide.

Drainage Feature 3 (Chino Creek): Potential RWQCB jurisdiction associated with Chino Creek totals approximately 0.55 acre (total of 450 linear ft.), none of which consists of state jurisdictional wetlands. The OHWM within Chino Creek is approximately 118 ft. wide.

Wetland Feature 1: Potential RWQCB jurisdiction associated with the Wetland Feature 1 totals approximately 21.3 acre of state jurisdictional wetlands.

4.4.3 USACE Jurisdiction

Drainage Feature 1: Potential USACE jurisdiction associated with Drainage Feature 1 totals approximately 0.02 acre (total of 254 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within the drainage feature is approximately 14 ft. to 8.5 ft. wide.

Drainage Feature 2: Potential USACE jurisdiction associated with Drainage Feature 2 totals approximately 0.01 acre (total of 42 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within the drainage feature is approximately 27 to 10 ft. wide.

Drainage Feature 3 (Chino Creek): Potential USACE jurisdiction associated with Drainage Feature 3 totals approximately 0.55 acre (total of 450 linear ft.), none of which consists of Federally jurisdictional wetlands. The OHWM within Chino Creek ranges from approximately 118 ft.

Wetland Feature 1: Potential USACE jurisdiction associated with Wetland Feature 1 totals approximately 21.3 acre.

A summary of potential jurisdictional resources is presented in Table 1 – Summary of Potential USACE, RWQCB, and CDFW Jurisdictional Resources within Survey Area below.

Table 1. Summary of Potential USACE, RWQCB, and CDFW Jurisdictional Resources within Survey Area

Feature Type	USACE/RWQCB		CDFW	
	Non-wetland WoUS (acres)	Wetland WoUS (acres)	Unvegetated Streambed (acres)	Riparian/Wetland (acres)
Feature 1	0.02 acre (254 lf)	—	0.03 acre (254 lf)	—
Feature 2	0.01 acre (42 lf)	—	—	0.01 acre (42 lf)
Feature 3 (Chino Creek)	0.55 acre (450 lf)	—	0.55 acre (450 lf)	—
Wetland Feature	—	21.3 acres	—	21.3 acres

5 CONCLUSION

Based on the preceding discussion, four (4) features, would be subject to CDFW, RWQCB, and USACE jurisdiction, as these features exhibit a bed and bank, support riparian or wetland vegetation, and convey flows to Chino Creek, a traditionally navigable water.

Any potential proposed Project activities within jurisdictional WoUS and WSC would require obtaining a USACE regulatory Section 10 and 404 Nationwide Permit and a RWQCB Section 401 Water Quality Certification for the proposed Project. The Project would qualify under Nationwide Permit Number 14-Linear Transportation Projects provided impacts to USACE jurisdictional features do not exceed ½ acre for non-wetland WoUS or 1/10 acre for wetland WoUS. Should impacts to WoUS exceed these acres, an Individual Permit (IP) would be required.

Additionally, any potential Project activities within either unvegetated streambed or riparian streambed would require obtaining a CDFW Section 1602 Streambed Alteration Agreement for the proposed Project. These regulatory approvals would need to be obtained prior to development of the proposed Project.

The findings of this report should be considered preliminary. Areas of potential jurisdiction are subject to final verification and approval by the regulatory agencies (i.e., the USACE, RWQCB, and CDFW) and would be confirmed during the permitting phase of the Project.

The data presented in this report should remain valid for up to five (5) years following the date of the fieldwork conducted for the jurisdictional delineation unless there are significant changes in site conditions or if a regulatory agency requires an updated report.

6 REFERENCES

California Department of Fish and Wildlife, 1994. *Field Guide to Lake and Streambed Alteration Agreements Section 1600-1607 California Fish and Wildlife Code*.

California Water Boards. "California Basin Plan Beneficial Use Viewer." Basin Plan Portal. 2024. Accessible at: https://www.waterboards.ca.gov/resources/data_databases/basin_plan_portal.html.

Natural Resources Conservation Service, April 2024. *Hydric Soils List of California*. (http://soils.usda.gov/use/hydric/)

U.S. Army Corps of Engineers, 2007. *Practices for Documenting Jurisdiction under Section 404 of the CWA*, Regional Guidance Letter 07-01.

U.S. Army Corps of Engineers, 2008. *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States*.

U.S. Army Corps of Engineers, 2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*.

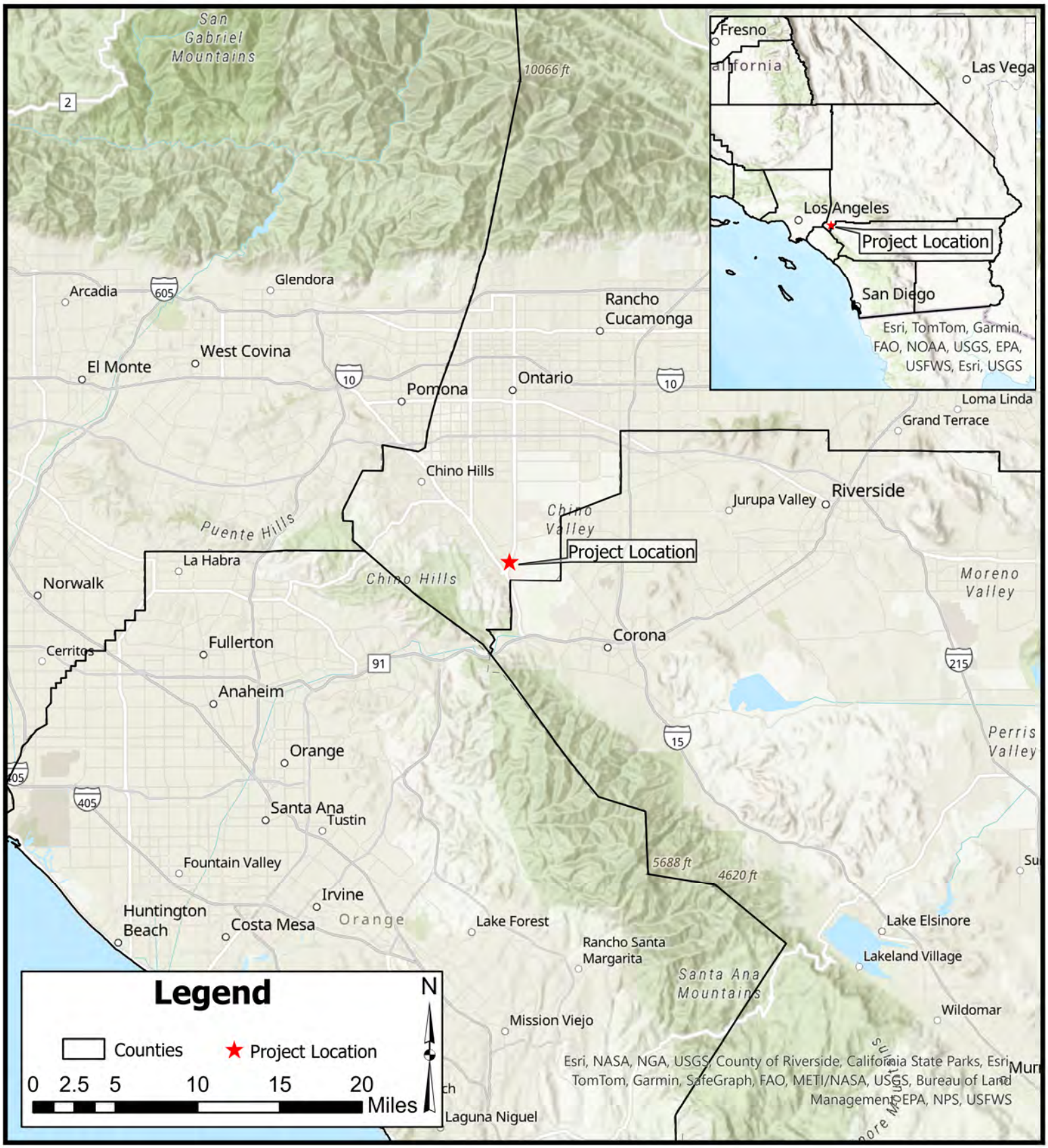
U.S. Army Corps of Engineers, 2001. *Minimum Standards for Acceptance of Preliminary Wetland Delineations*.

U.S. Department of Agriculture, Natural Resources Conservation Service, *Web Soil Survey*. (http://websoilsurvey.nrcs.usda.gov/app/)

U.S. Fish and Wildlife Service, Department of Habitat and Resource Conservation, *Wetland Geodatabase*. (http://wetlandsfws.er.usgs.gov/NWI/index.html)

U.S. Geological Survey, 7.5 Minute Series Topographic Quadrangles

Attachment 1.
Figures

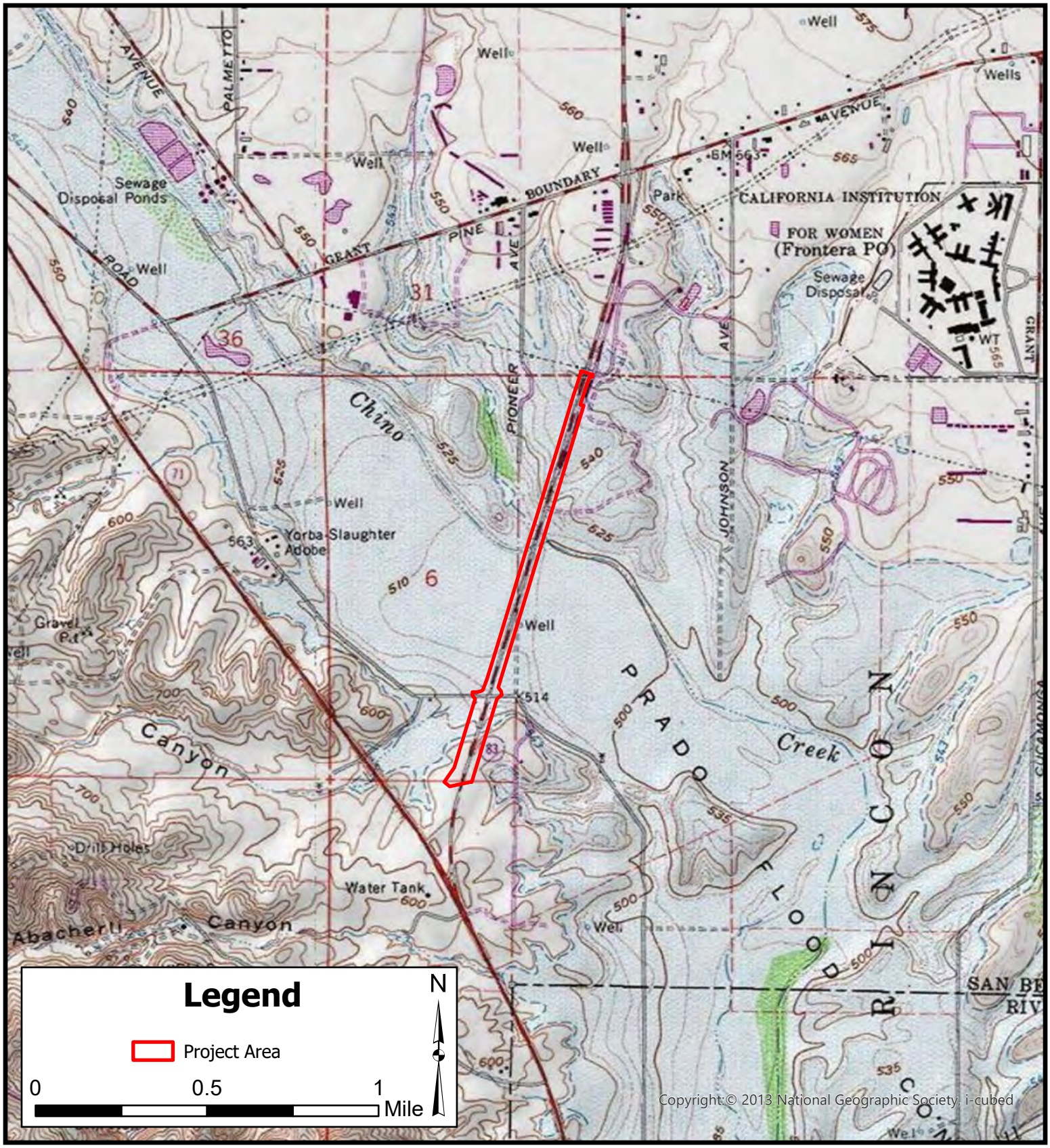


Euclid Avenue Bridge Project

Regional Vicinity Map

RVA

Figure 1

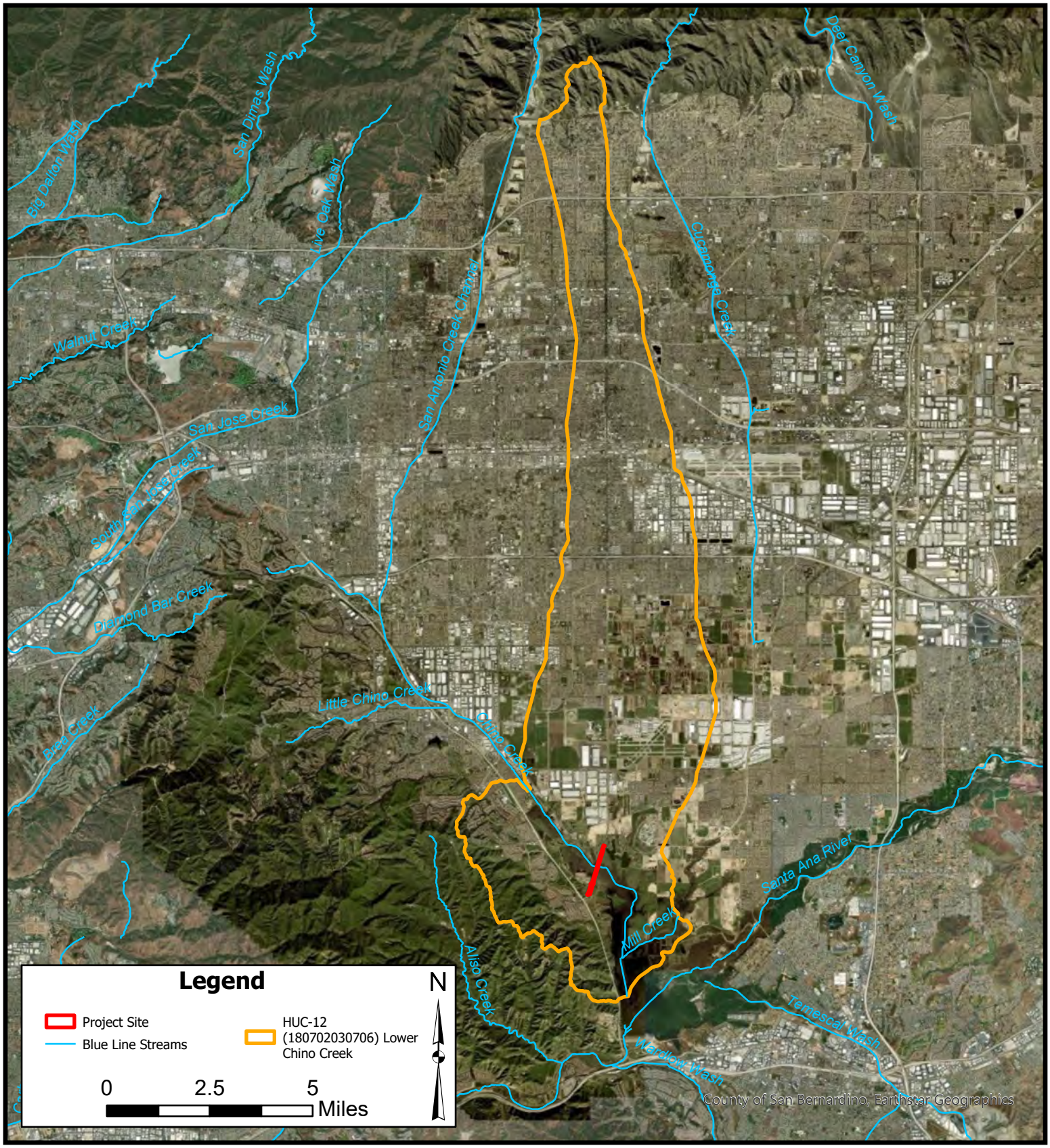


Euclid Avenue Bridge Project

Site Vicinity Map

RVA

Figure 2

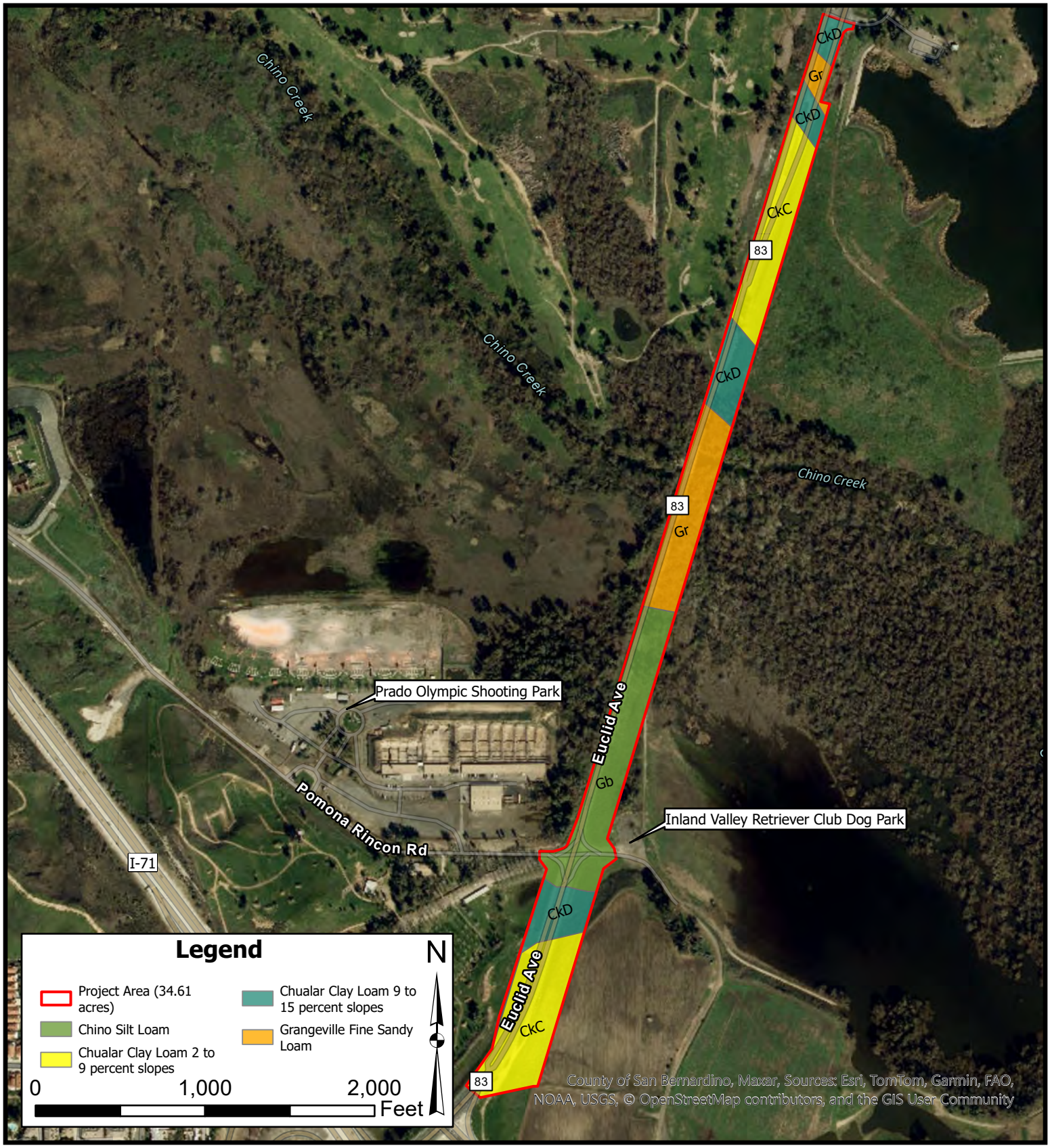


Euclid Avenue Bridge Project

Watershed Map

RVA

Figure 3

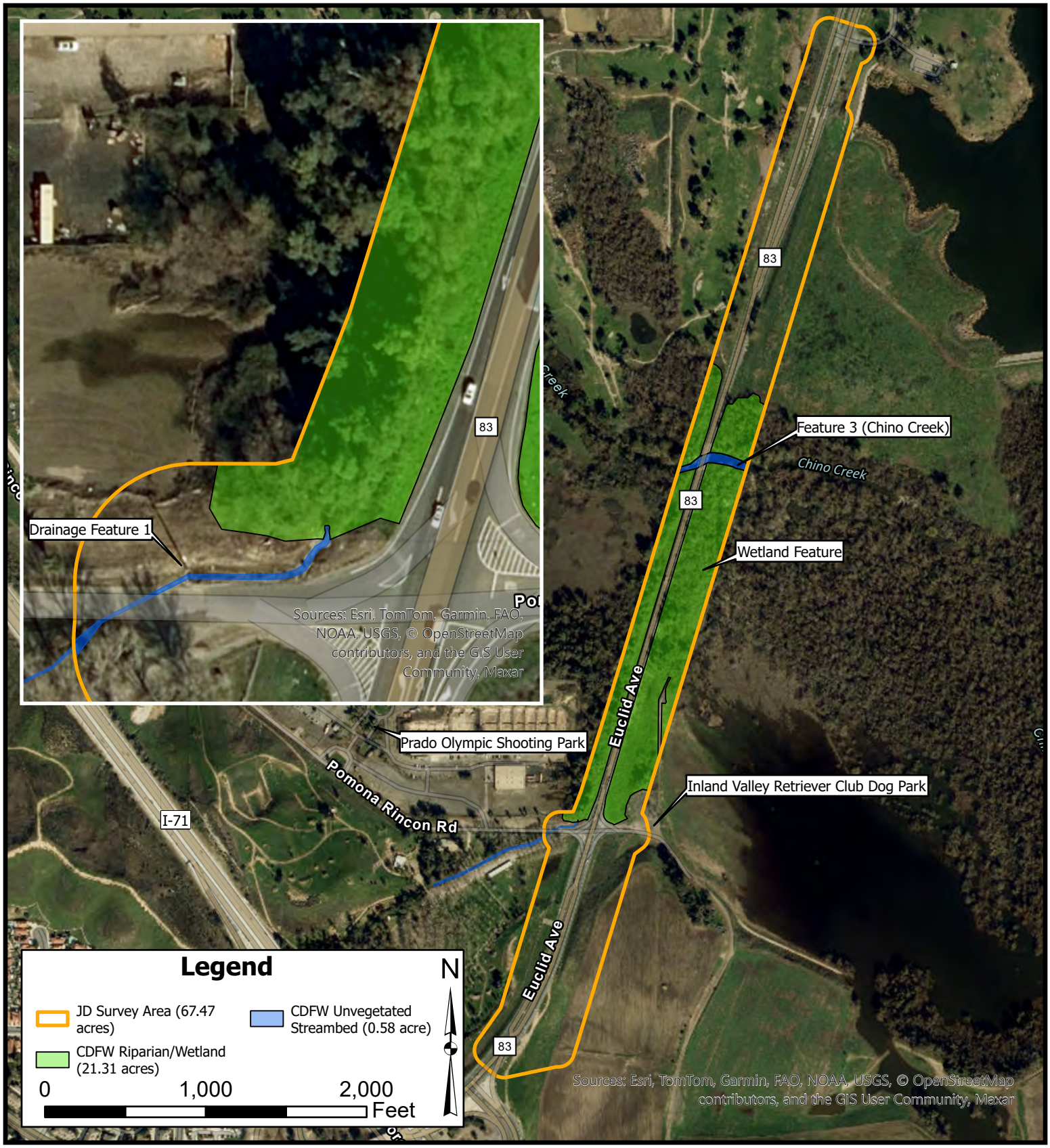


Euclid Avenue Bridge Project

Soils Map

RVA

Figure 4

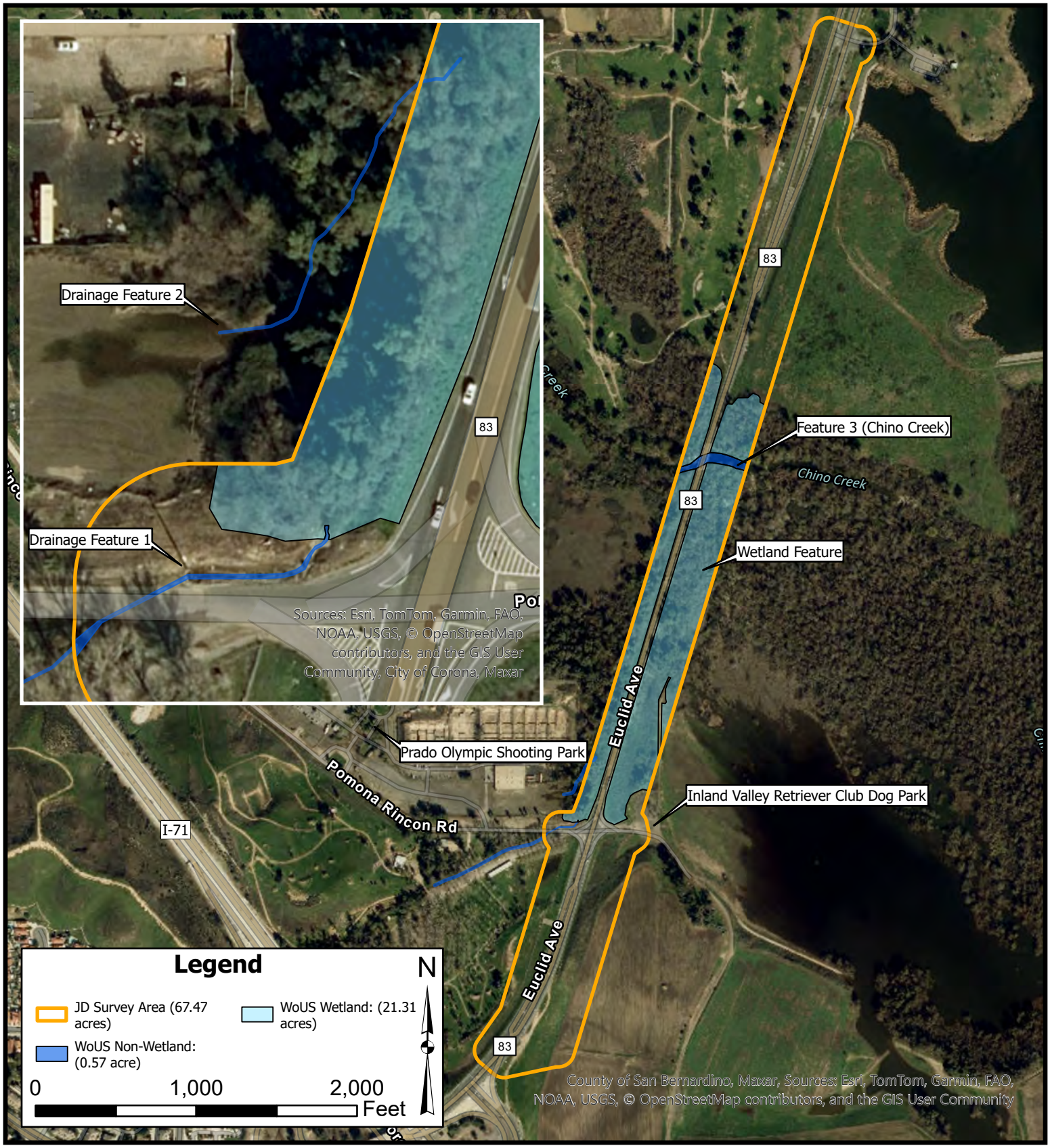


Euclid Avenue Bridge Project

CDFW Jurisdiction Map

RVA

Figure 5

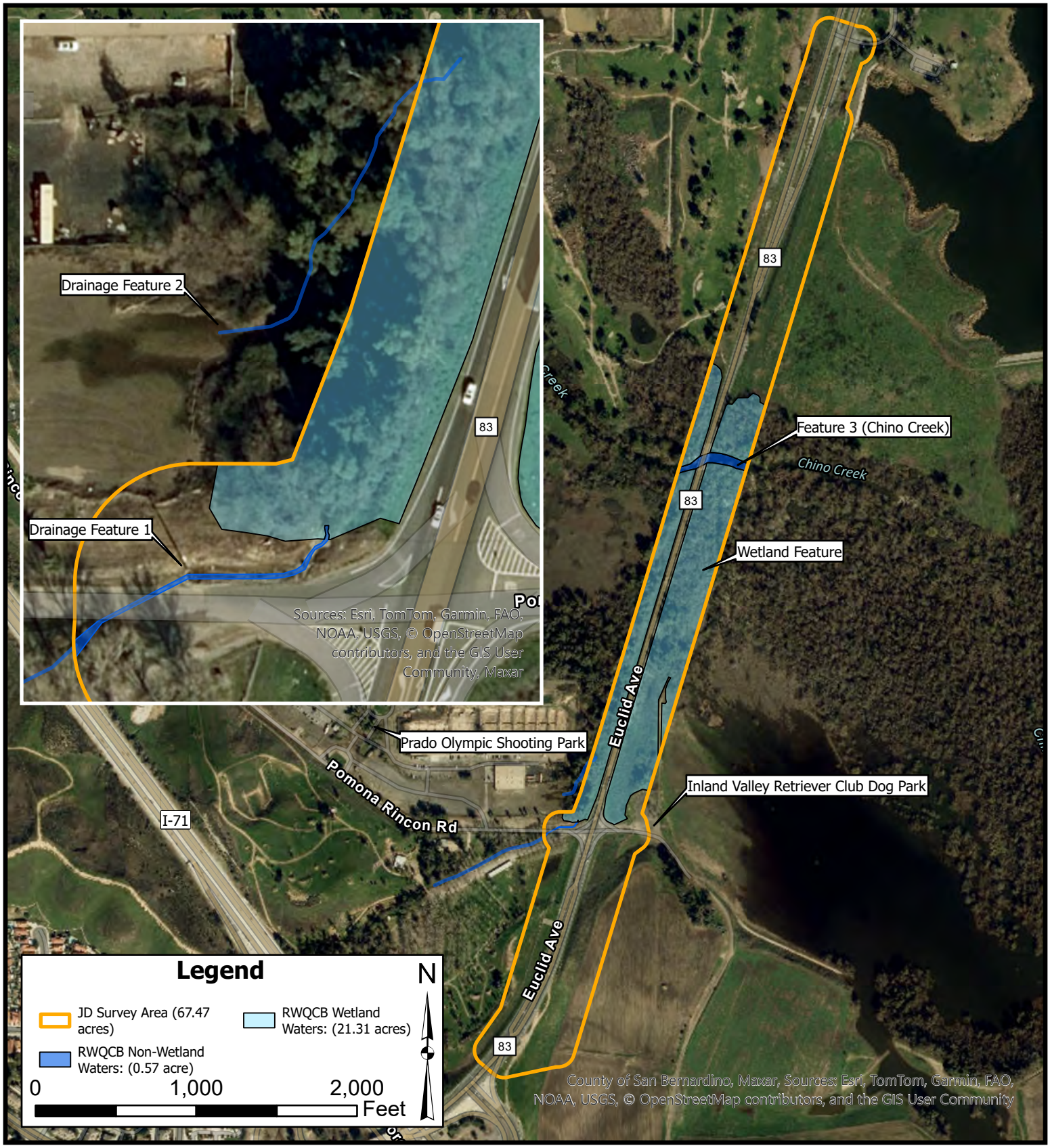


Euclid Avenue Bridge Project

USACE Jurisdiction Map

RVA

Figure 6

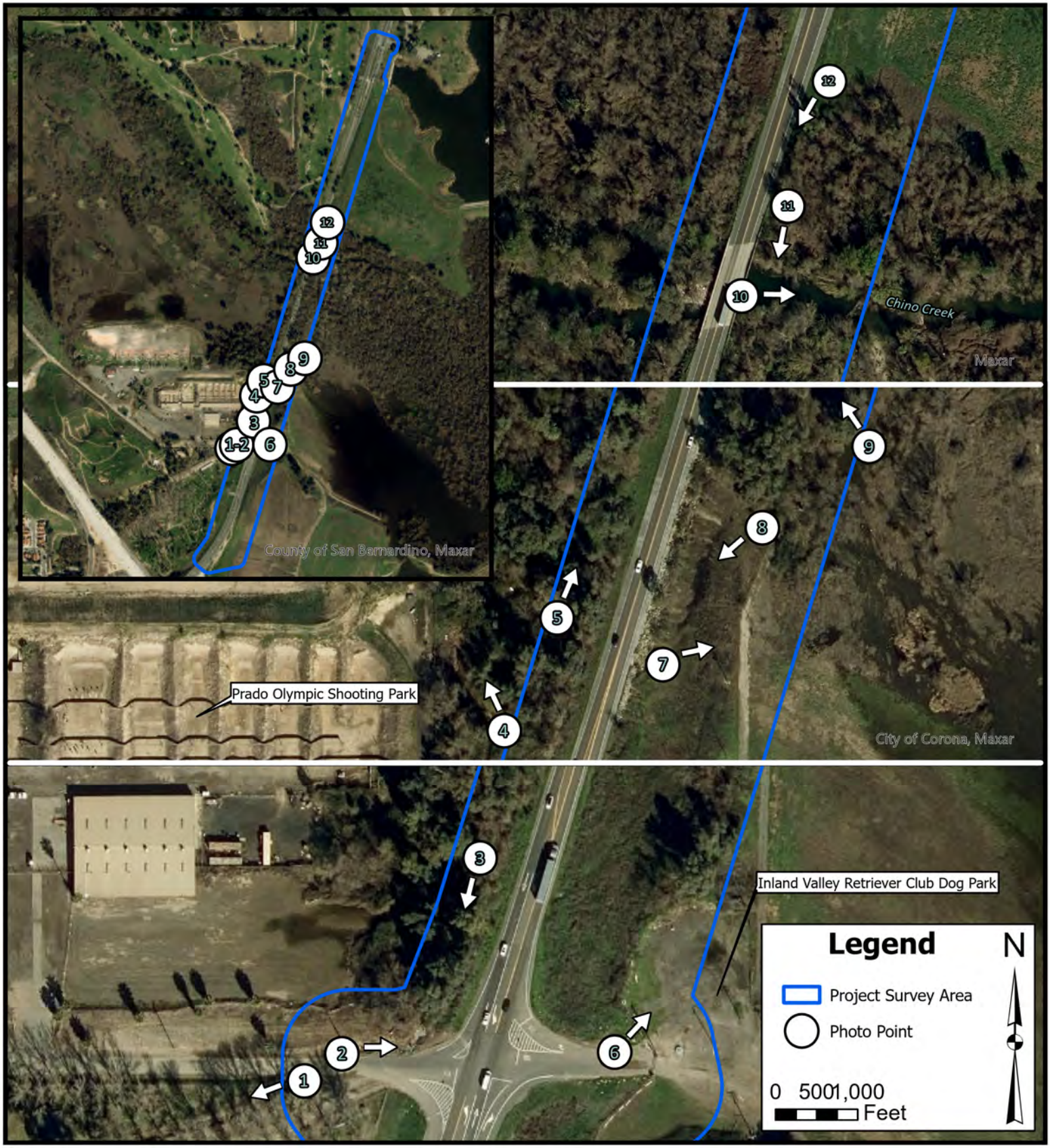


Euclid Avenue Bridge Project

RWQCB Jurisdiction Map

Figure 7

Attachment 2.
Site Photos



Euclid Avenue Bridge Project

Site Photos Map



Photo Location 1: Showing Drainage Feature 1 unvegetated streambed adjacent to Pomona Rincon Road.



Photo Location 2: Showing Drainage Feature 1 with concrete riprap at intersection of Euclid Ave. and Pomona Rincon Road.



Photo Location 3: Showing Drainage Feature 2 streambed where it transitions to wetland habitat associated with Chino Creek.



Photo Location 4: Showing wetland habitat associated with Chino Creek.



Photo Location 5: Showing wetland understory habitat associated with Chino Creek.



Photo Location 6: Showing transition zone from non-wetland to wetland habitat associated with Chino Creek on east side of Euclid Avenue.



Photo Location 7: Showing wetland feature associated with Chino Creek on the east side of Euclid Avenue.



Photo Location 8: Showing wetland feature associated with Chino Creek on the east side of Euclid Avenue.



Photo Location 9: Showing wetland feature associated with Chino Creek on the east side of Euclid Avenue.



Photo Location 10: Showing Chino Creek open water as it conveys flows to Prado Basin.



Photo Location 11: Showing understory of wetland feature associated with Chino Creek.



Photo Location 12: Showing the transition zone of wetland feature of Chino Creek to non-native upland grasses.

Attachment 3.
OHWM/Wetland Determination Forms

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Euclid Ave Bridge - West Side **Date:** 10/22 **Time:**
Project Number: Drainage 1 **Town:** Chino **State:** CA
Stream: **Photo begin file#:** **Photo end file#:**
Investigator(s): Miranda Villalobos, Justinne Manahan, & Zachary Jensen

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

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details: Pomona-Rincon Rd. & Euclid Ave. West Side

Projection: Mercator Auxiliary **Datum:** OWGS 1984
Coordinates: WGS 1984 web mercator

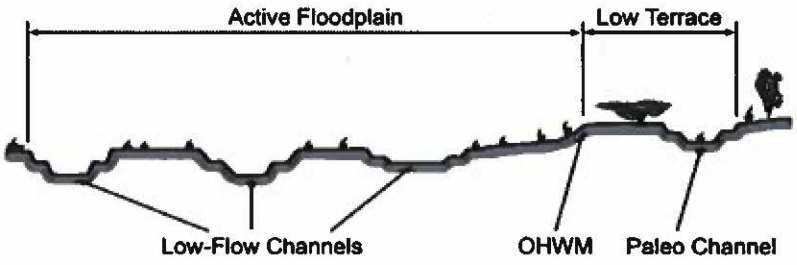
Potential anthropogenic influences on the channel system:
Anthropogenic channelization.

Brief site description: South of Pomona-Rincon Rd. ~~South~~ northeast corner of the archery range at the entrance gate of the range, the drainage collects water from the archery range water is collected and travels under Pomona-Rincon Rd. via corrugated pipe tunnel to the north side of the road where it flows into a wetland.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates: 1994-Present
- ☑ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

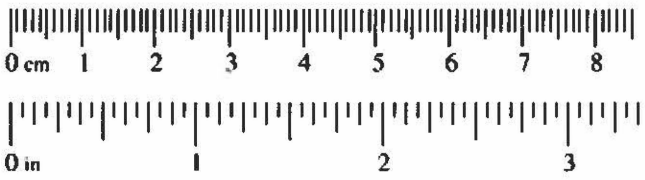


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☑ GPS
   - ☐ Digitized on computer
   - ☐ Other:

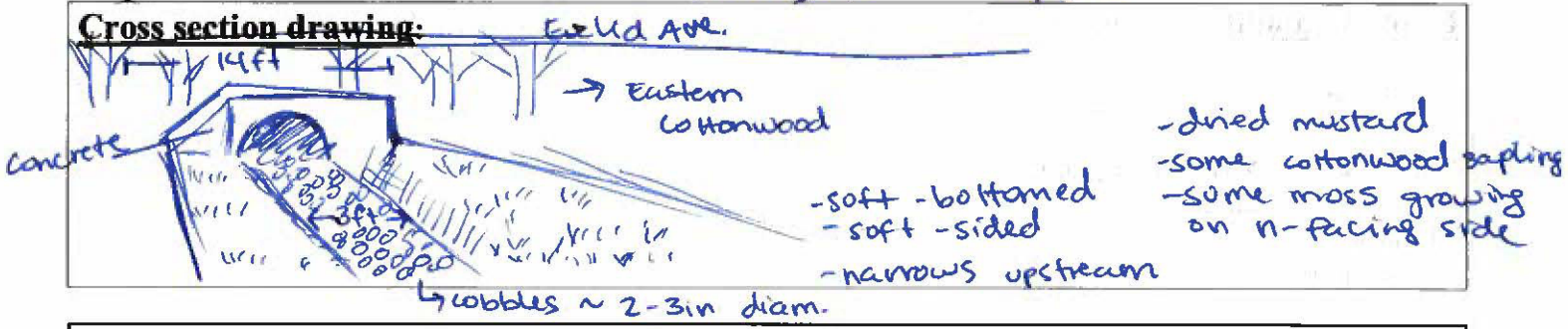
Wentworth Size Classes

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



Project ID: **Cross section ID:** drainage 1 **Date:** 10/22 **Time:**

Cross section drawing:



OHWM

GPS point: 33.936008°, -117.666969°

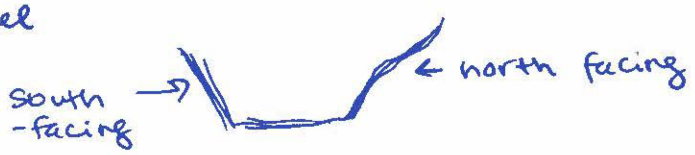
Indicators:

- ☐ Change in average sediment texture
- ☑ Change in vegetation species
- ☐ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

↳ some moss growth above OHWM on side slopes

Comments:

- observed low-flow channel
- minor undercutting obs.



Floodplain unit: ☑ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: 33.936008°, -117.666969°

Characteristics of the floodplain unit:

Average sediment texture: fine sandy w/ cobbles

Total veg cover: ____ % Tree: ____ % Shrub: ____ % Herb: 30 % - mostly leaf litter from cottonwoods ↳ weeds, non-native grasses

Community successional stage:

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

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☑ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Site Number: Euclid Ave Bridge west side **Date:** 10/22 **Time:**
Town: Chino **State:** CA
Stream: Drainage 2 **Photo begin file#:** **Photo end file#:**
Investigator(s): Miranda Villalobos, Justinne Manahan, & Zachary Jensen

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

Y ☐ / N ☑ Is the site significantly disturbed?

Location Details: Pomona-Rincon Rd. and Euclid Ave. West Side

Projection: Mercator Aux **Datum:** OWGS 1984

Coordinates: WGS 1984 web mercator

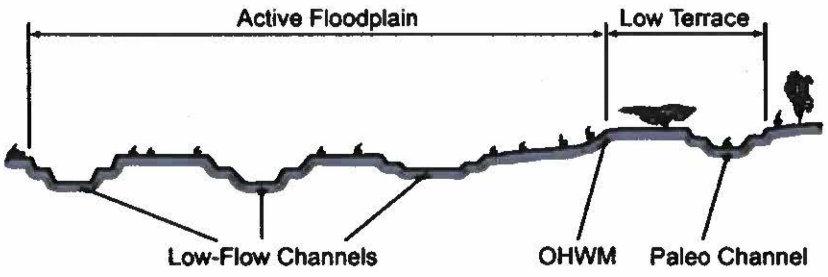
Potential anthropogenic influences on the channel system:
Roadside run-off

Brief site description: North of Pomona-Rincon Rd. Southwest of the Prado Olympic Shooting Park. Sheet flows from the shooting park parking lot are collected & concentrated with the drainage that wraps around the southwest corner of the shooting park to the north. Sheet flow converges with drainage 2.

Checklist of resources (if available):

- ☑ Aerial photography
  Dates: 1994 → Present
- ☑ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☑ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☑ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

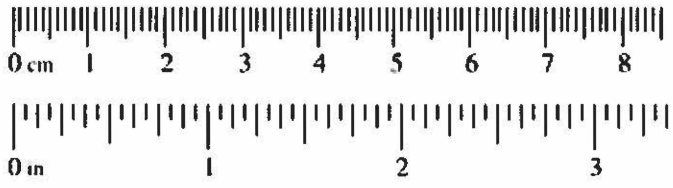


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☑ GPS
   - ☐ Digitized on computer
   - ☐ Other:

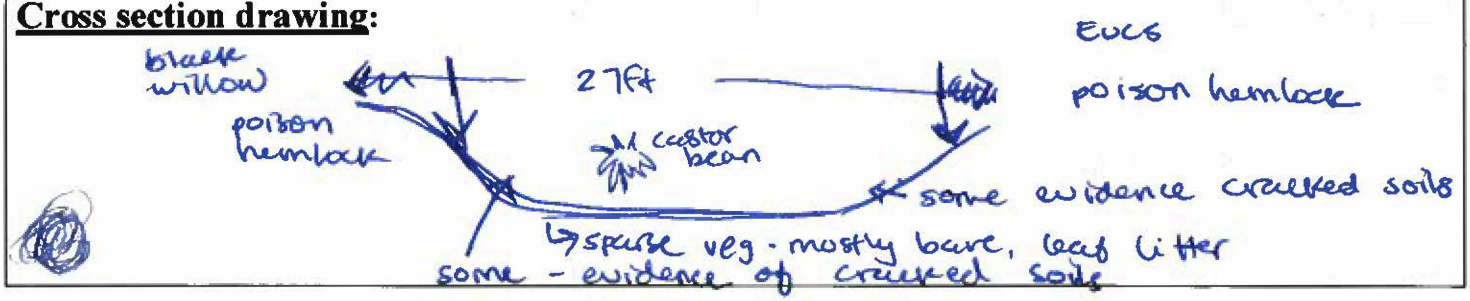
Wentworth Size Classes

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



Project ID: **Cross section ID:** drainage 2 **Date:** 10/22 **Time:**

Cross section drawing:



OHWM

GPS point: 33.935604°, -117.656594°

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☑ Change in vegetation cover
- ☐ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Floodplain unit: ☐ Low-Flow Channel ☑ Active Floodplain ☐ Low Terrace

GPS point: 33.935604°, -117.656544°

Characteristics of the floodplain unit:

Average sediment texture: fine/sandy; cracked soils in some areas; muddy/inundated in others

Total veg cover: ____ % Tree: 40 % Shrub: 20 % Herb: 40 %

Community successional stage:

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

Indicators:

- ☑ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Euclid Ave. Rd. Widening City/County: Chino, San Bernardino Sampling Date: 3/5/24

Applicant/Owner: _____ State: CA Sampling Point: 1

Investigator(s): Zach Jenson, Justine Manahan Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): 0%

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? N/A Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5' x 5')			
1. Poison hemlock	50	Y	FACW
2. curly dock (Rumex crispus)	50	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	100% = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		250 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-6in	2.5Y 3/2	100					clay-like	saturation at surface
6-10in	2.5Y 4/2	100					sandy clay	
10-13in	2.5Y 4/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ✓ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ✓ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 12 in

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 17in

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Euclid Ave, Chino City/County: Chino, San Bernardino Sampling Date: 3/5/24

Applicant/Owner: City of Chino: Public Works State: CA Sampling Point: 2

Investigator(s): Miranda Villalobos, Justinne Manahan, Section, Township, Range: 35, 7W

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): 1%

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ✓, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✓

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____

Hydric Soil Present? Yes _____ No _____

Wetland Hydrology Present? Yes _____ No _____

Is the Sampled Area within a Wetland? Yes _____ No _____

Remarks:
- top layer of soils - composed of landscaping soils + materials (rocks)
- presence of non-native upland species (black mustard, bermuda grass

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5'x5')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. bermuda grass	5%		FACU
2. black mustard	83%		UPL
3. poison hemlock	12%		FACW
4. [illegible]			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: 5'x5')			
1.			
2.			
3.			
4. Rumex crispus	100%		FAC
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	
FACW species	1	x 2 =	2
FAC species	0	x 3 =	
FACU species	1	x 4 =	4
UPL species	1	x 5 =	5
Column Totals:	3 (A)		11 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

N/A Dominance Test is >50%

N/A Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

16in

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2in							gravelly	exotic fill (landscaping soils, rock)
2-4in	10YR 3/2	100%					loamy sandy coarse sandy loam	
4-8	2.5Y 7/4	100%						evidence of smooth river stones = alluvial
8-14in	2.5Y 4/3	100%						
3) 0-4in	10YR 4/2	100%						organic material (roots)
4-17in	10YR 3/2	100%						saturation, organic materials

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ✓ Stratified Layers (A5) (LRR C) ✓
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3) ✓
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓✓ Depth (inches): _____

Saturation Present? ✓Yes _____ No ✓ Depth (inches): 17in

(includes capillary fringe)

Wetland Hydrology Present? Yes ✓ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Attachment 6.

Presence/Absence Surveys for Yellow Billed Cuckoo, Southwestern Willow Flycatcher, and Least Bell's Vireo

WOODSTAR BIOLOGICAL LLC
345 E. ALTADENA DR.
ALTADENA, CA 91001
(626) 319-4723
WWW.WOODSTARBIOLOGICAL.COM

August 31, 2024

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: **45-Day Report—Presence/Absence Surveys for Yellow-billed Cuckoo (*Coccyzus americanus*), Southwestern Willow Flycatcher (*Empidonax traillii extimus*) and Least Bell's Vireo (*Vireo bellii pusillus*) at Chino Creek and Euclid Avenue Bridge, San Bernardino County, California**

Dear Recovery Permit Coordinator:

This letter and attached information is intended to satisfy the 45-day reporting requirements for the 2024 presence/absence surveys for for Yellow-billed Cuckoo (*Coccyzus americanus*) and southwestern Willow Flycatcher (*Empidonax traillii extimus*) and Least Bell's Vireo (*Vireo bellii pusillus*) conducted by Jonathan Feenstra of Woodstar Biological LLC/Ruth Villalobos and Associates for the City of Chino's Euclid Avenue Bridge Project. Yellow-billed Cuckoo and southwestern Willow Flycatcher were not detected in these surveys, but Least Bell's Vireos were widespread and confirmed breeding on site. In this report you will find a summary of survey methods and results, and attached are Figures 1-4 showing survey areas and maps of species detections, a survey methods table (Attachment A) tables pertinent observations (Attachments B – D), and a list of all bird species detected during the surveys (Attachment E). The survey methods table summarizes the dates, times, survey personnel, and weather conditions of all presence/absence surveys. Pertinent observations tables comprise annotated lists of "special status" species Least Bell's Vireo (*Vireo bellii pusillus*), Yellow Warbler (*Setophaga petechia*), and Yellow-breasted Chat (*Icteria virens*).

Survey Areas

The entire survey area (See Figure 1) is approximately 1600 m long and 300 meters wide centered at the Euclid Avenue bridge over Chino Creek. Riparian forest makes up a portion of the survey area, dominating the central part. The riparian forest canopy is mostly Goodding's willow (*Salix gooddingii*), some to heights of nearly 20m. There are also tall, scattered *Eucalyptuys sp.*, palms, and ashes (*Fraxinus sp.*) of a similar height. Other common trees include boxelder (*Acer negundo*), Southern California walnut (*Juglans californica*),



southern catalpa (*Catalpa bignonioides*), with a few Chinese elm (*Ulmus parviflora*). The understory is heavily shaded by the canopy and patchily open, but with abundant castor bean (*Ricinus communis*), poison hemlock (*Conium maculatum*), and great stinging nettle (*Urtica dioica*). There are a few patches of *Arundo donax*, but it doesn't comprise a large portion of the wetland vegetation. Open areas within the forest are blanketed with dense mats of California wild grape (*Vitis californica*) and trailing blackberry (*Rubus ursinus*) vines.

West and southeast of the riparian forest are areas of open wetland. They are largely vegetated with *Polygonum sp.* to over 2m high with abundant rough cocklebur (*Xanthium strumarium*), perreniel peppergrass (*Lapidium latifolium*), common sunflower (*Helianthus annuus*), evening-primroses (*Oenothera sp.*), dallis grass (*Paspalum dilatatum*), bedstraws (*Galium sp.*), and flatsedges (*Cyperus sp.*). There are a few arroyo willows (*Salix lasiolepis*) on the borders between forest and open wetland.

There are developed areas at the south end of the survey area, a dog training area on the east side of Euclid Ave, and shooting ranges on the west side. The north side of the survey area has a large ruderal area bordering Prado Regional Park on the northeast and a golf course (itself with patchy wetland and riparian vegetation) on the northwest.

There is open water in Chino Creek and in ditches along both sides of Euclid from Chino Creek as well as another channel running southeast from Chino Creek through the forest and out into the open wetland.

The survey area could be thoroughly covered in a morning (see survey protocols below).

Survey Methods

Yellow-billed Cuckoo

Surveys for Yellow-billed Cuckoo follow the 2015 USFWS protocol. The protocol states that four focused survey visits are to be conducted in suitable habitat, one within the first survey period (June 15 – 30), two in the second survey period (July 1 – 31), and one in the third survey period (August 1 – 15). Surveys are to be conducted 12 – 15 days apart. Surveys begin before sunrise and are to be completed by 1100 or if temperatures exceed 40C. Surveys are conducted by broadcasting a series of 5 calls spaced by one minute from calling stations spaced approximately 100m through suitable habitat. Surveys are to be conducted by a permitted biologist. Following USFWS guidance, surveys are not conducted coincidentally with surveys for other species.

Southwestern Willow Flycatcher

Surveys for southwestern Willow Flycatcher follow the 2010 USGS protocol. Five focused survey visits for southwestern willow flycatcher are conducted in suitable habitat, one within the first survey period (May 15–31), and two each within the second and third survey periods (June 1–24; June 25–July 17). Each survey visit is conducted at least 5 days apart with careful and thorough coverage of all suitable habitat. All surveys are conducted



between one hour before sunrise and 10:30 a.m., when Willow Flycatchers are most active. Playing of recorded vocalizations is performed while walking through or along the suitable habitat and is to be discontinued if a Willow Flycatcher shows undue disturbance or potential predators are present. Surveys are to be conducted by a permitted biologist. Following USFWS guidance, surveys are not conducted coincidentally with surveys for other species.

Least Bell's Vireo

Surveys for least Bell's Vireo follow the 2001 USFWS protocol. Eight focused survey visits for least Bell's vireo are conducted between April 10 and July 31 at each site. Each survey visit is conducted at least 10 days apart with careful and thorough coverage of all suitable habitats. All surveying is conducted during morning hours between sunrise and 11:00 a.m., when vireos are most active. Playing of recorded vocalizations is not part of the survey protocol. No permit is required to conduct presence/absence surveys of Least Bell's Vireo.

Survey Results

Coverage of the survey areas was done entirely on foot weaving through and around the dense riparian vegetation on both sides of Euclid Avenue and Chino Creek. No trails exist through the forest, but the open edges, Euclid Avenue, and the golf course provided convenient points of access.

All surveys were conducted by Jonathan Feenstra (USFWS 10(A) permit number: TE – 128462-4).

Survey visit information is compiled in the table in Attachment A.

Yellow-billed Cuckoo

The presence/absence surveys for Yellow-billed Cuckoo were conducted separately from surveys for southwestern Willow Flycatcher and least Bell's Vireo (see Attachment A).

No Yellow-billed Cuckoos were detected during the surveys.

Southwestern Willow Flycatcher

The presence/absence surveys for southwestern Willow Flycatcher were conducted separately from surveys for Yellow-billed Cuckoo and least Bell's Vireo (see Attachment A).

No Willow Flycatchers were detected during the surveys.

Least Bell's Vireo

The presence/absence surveys for least Bell's Vireo were conducted separately from surveys for Yellow-billed Cuckoo and southwestern Willow Flycatcher (see Attachment A).

Bell's Vireos were common throughout the survey area and were detected on every visit. Based on the number of singing males, a maximum of 23 different Bell's Vireo territories were identified. Successful breeding was confirmed by the presence of fledged young in five of the territories. There were no observed instances of Brown-headed Cowbird parasitism (and not Brown-headed Cowbirds were observed during the surveys). Territories were predictably in the riparian forest. The map of Bell's Vireo detections is shown in Figure 2. Details of each observation showing the tracking of each territory through the eight surveys are compiled in Attachment B.

Brown-headed Cowbirds

Brown-headed Cowbirds were not detected on any survey visit.

Conclusions

Drawing on the results of these surveys, Yellow-billed Cuckoos and Willow Flycatchers were not breeding in the survey area. The permanent water supply, high quality riparian forest, and little disturbance at this site would seem to be excellent conditions for this species, though they are absent from this site as well as many suitable-appearing parts of their former range – likely due to a small extant source population. Their absence as breeders in the survey area this year (and previous years) is no indication that this species couldn't nest there in the future and surveys should be conducted if disturbance to the habitat is predicted.

Chino Creek through the survey area is highly suitable for occupation by least Bell's Vireo and the adjacent Prado Basin is a known stronghold for this species. All available habitat within the survey areas seemed to be occupied by Bell's Vireos, including marginally suitable riparian vegetation thickets adjacent to the busy Euclid Avenue, within the golf course, and abutting the shooting range.

During the surveys a cumulative 66 bird species were observed and the list shown in Attachment E.

Additional Pertinent Observations

Special status species

Yellow Warblers and Yellow-breasted Chat were widespread through the survey areas throughout the season and detections were annotated during all Bell's Vireo surveys. Breeding was confirmed for both species. Maps of their detections are shown in Figures 3 and 4. Details of the detections are listed in Attachment C and D.

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Altadena, CA 91001
(626) 319-4723
www.woodstarbiological.com

Please do not hesitate to contact me with any questions.

Sincerely,



Jonathan S. Feenstra Ph.D.
Primary surveying biologist
TE – 128462-4
feenstra@woodstarbiological.com
626.319.4723 (mobile)

Attachments

Figures 1-4: Survey area maps and locations of detections
Attachment A: Survey methodology table
Attachment B: Annotated list of Least Bell's Vireo detections
Attachment C: Annotated list of Yellow Warbler detections
Attachment D: Annotated list of Yellow-breasted Chat detections
Attachment E: Cumulative bird list

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I certify that the information in this survey report and attached materials fully and accurately represents my work.

Jonathan Feenstra 8/27/2024

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Attachment A: Protocol Presence/Absence Survey Methods Table

Survey Date	Survey #	Protocol Survey Times		Atmospheric Conditions		
		Start Survey Times	End Survey Times	Air Temp. (°F)	Percent Cloud Cover	Wind Speed (mph)
Least Bell's Vireo Surveys						
5/11/2024	1	0545	0950	64-69	Cloudy-0	0-5
5/21/2024	2	0545	1025	62-72	Cloudy	0-3
5/31/2024	3	0525	0932	61-66	Cloudy	1-3
6/11/2024	4	0530	0925	63-67	Cloudy	0-3
6/21/2024	5	0528	0936	58-79	0	1-3
7/2/2024	6	0531	0927	62-84	0	0-3
7/12/2024	7	0525	0925	67-78	Cloudy-Partly	1-3
7/23/2024	8	0540	0856	69-84	0	0-3
Southwestern Willow Flycatcher Surveys						
5/19/2024	1	0650	1005	61-72	Cloudy	1-6
6/1/2024	2	0527	0909	64-65	Cloudy	1-3
6/17/2024	3	0527	0934	65-68	Cloudy	1-3
6/30/2024	4	0532	0938	55-86	0	0-2
7/15/2024	5	0534	0925	68-83	Partly	1-3
Western Yellow-billed Cuckoo Surveys						
6/24/2024	1	0530	0856	69-87	0	0-2
7/8/2024	2	0522	0837	64-79	0	1-3
7/22/2024	3	0538	0902	65-89	Partly-0	1-2
8/5/2024	4	0555	0855	63-87	0	0-3

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Attachment B: Least Bell's Vireo detections

Species	Protocol Visit	Date	Lat	Long	Territory Label	Notes
Least Bell's Vireo	LBV1	5/11/24	33.935955	-117.655332	A	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.935857	-117.655258	A	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.935933	-117.655223	A	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.936157	-117.655222	A	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.935881	-117.655209	A	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.935611	-117.656388	A?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.936472	-117.656027	B	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.936168	-117.65615	B	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.935715	-117.656623	B	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.936438	-117.656232	B	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.936239	-117.656137	B	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.936543	-117.656229	B	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.936654	-117.656195	B	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.93668	-117.656192	B	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.937095	-117.65614	B	2? Singing, calling
Least Bell's Vireo	LBV1	5/11/24	33.93758	-117.6547	C	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.937275	-117.654774	C	Scolds as near a nest
Least Bell's Vireo	LBV3	5/31/24	33.937081	-117.654866	C	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.937386	-117.654968	C	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.937074	-117.655027	C	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.937453	-117.654935	C	2, singing + juv.
Least Bell's Vireo	LBV8	7/23/24	33.93741	-117.654729	C	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.937608	-117.654262	C or D	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.937766	-117.654096	C?	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.937776	-117.654291	C?	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.937677	-117.653999	C?	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.937865	-117.653965	C?D?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.93778	-117.653573	D	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.937813	-117.653689	D	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.937681	-117.653346	D	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938201	-117.65334	D	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.937375	-117.653806	D?	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.937793	-117.653196	D?	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.937605	-117.654406	D?	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.938042	-117.65331	D?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.938407	-117.653265	E	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.938848	-117.653076	E	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.938727	-117.652885	E	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938462	-117.653055	E	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938648	-117.65306	E	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.938438	-117.653102	E	Singing.

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Least Bell's Vireo	LBV7	7/12/24	33.939038	-117.653268	E	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.938396	-117.652812	E	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.938889	-117.653787	F	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.938847	-117.653879	F	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.939169	-117.653859	F	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939011	-117.653591	F	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938807	-117.654188	F	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938862	-117.654198	F	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.938906	-117.654016	F	1 singing, 2 begging juvs.
Least Bell's Vireo	LBV7	7/12/24	33.93881	-117.653649	F	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.938963	-117.653381	F	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.939741	-117.653656	G	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.939986	-117.653903	G	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939511	-117.654326	G	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.939331	-117.654325	G	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.939658	-117.654292	G	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.93949	-117.654188	G	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.939128	-117.654419	G	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.939139	-117.654139	G	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.939788	-117.65372	G?	Singing and scolding.
Least Bell's Vireo	LBV1	5/11/24	33.939722	-117.653079	H	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.939563	-117.653184	H	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.939504	-117.65319	H	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.939585	-117.653214	H	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.939727	-117.653531	H	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.939902	-117.653231	H, I, or J	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939799	-117.653656	H?	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.939961	-117.653173	H?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.939824	-117.652811	I	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.9399	-117.653094	I	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939928	-117.652913	I	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.939365	-117.652846	I	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.939841	-117.652904	I	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.939159	-117.652951	I	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939598	-117.652948	I or J	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.93986	-117.652968	I/J	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.940401	-117.653233	J	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.940121	-117.653369	J	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.940524	-117.653472	J	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.940384	-117.653375	J	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.940547	-117.653326	J	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.940383	-117.653444	J	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.940751	-117.653437	J	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.940572	-117.65337	J	Singing.

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Least Bell's Vireo	LBV8	7/23/24	33.940837	-117.653013	J	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.940091	-117.653395	J?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.939779	-117.65501	K	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.939874	-117.654885	K	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.939796	-117.655092	K	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.939115	-117.654967	K	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.939955	-117.655008	K	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.938621	-117.655558	K	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.93905	-117.655624	K?	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938779	-117.65515	K?	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938387	-117.656026	K?	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938592	-117.655232	K?	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.93991	-117.654817	K?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.937355	-117.656391	L	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.937402	-117.656606	L	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.937312	-117.656342	L	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.937274	-117.656343	L	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.937729	-117.656519	L	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.941094	-117.654885	N	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.941219	-117.654737	N	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.941456	-117.654915	N	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.94134	-117.654997	N	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.941147	-117.654865	N	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.941523	-117.654763	N	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.941322	-117.655149	N	Calls, juvenile
Least Bell's Vireo	LBV1	5/11/24	33.94272	-117.655409	O	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.942434	-117.655019	O	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.942646	-117.654992	O	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.942492	-117.654981	O	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.942508	-117.654992	O	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.943097	-117.654905	O	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.94298	-117.655074	O	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.942443	-117.654939	O	3: singing, calling
Least Bell's Vireo	LBV1	5/11/24	33.941426	-117.655495	P	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.941328	-117.655221	P	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.941522	-117.655526	P	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.941459	-117.655431	P	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.941346	-117.655728	P	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.940717	-117.655083	P	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.94191	-117.654541	Q	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.941426	-117.654219	Q	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.941688	-117.654586	Q	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.941903	-117.654503	Q	Singing and scolds.
Least Bell's Vireo	LBV5	6/21/24	33.941838	-117.654669	Q	Singing.

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Least Bell's Vireo	LBV8	7/23/24	33.941553	-117.654717	Q	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.940514	-117.652358	R	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.940472	-117.652405	R	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.940402	-117.652171	R	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.940298	-117.652094	R	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.940406	-117.652581	R	2: singing and scolds
Least Bell's Vireo	LBV6	7/2/24	33.940434	-117.652596	R	Multiple birds: singing and calls
Least Bell's Vireo	LBV7	7/12/24	33.940535	-117.652604	R	2, singing, calling
Least Bell's Vireo	LBV8	7/23/24	33.940519	-117.652465	R	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.937754	-117.655424	S	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.938115	-117.655574	S	Scolds.
Least Bell's Vireo	LBV4	6/11/24	33.937766	-117.655582	S	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.937851	-117.655679	S	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.938235	-117.65606	S	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.93838	-117.655999	S	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.938041	-117.656329	S or L?	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.938524	-117.655159	S?	Singing.
Least Bell's Vireo	LBV2	5/21/24	33.938127	-117.654406	T	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938343	-117.654361	T	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938462	-117.654292	T	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.938287	-117.654437	T	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.938399	-117.654326	T	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.93816	-117.653925	T?	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938108	-117.65422	T?	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.937692	-117.654145	T?	Singing.
Least Bell's Vireo	LBV1	5/11/24	33.940077	-117.655537	U	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.940041	-117.655619	U	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.94017	-117.655861	U	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.940179	-117.65591	U	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.940243	-117.655797	U	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.93851	-117.653916	V	Singing.
Least Bell's Vireo	LBV3	5/31/24	33.938576	-117.653651	V	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938903	-117.65365	V	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.938969	-117.653605	V	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.938302	-117.653603	V	Singing.
Least Bell's Vireo	LBV7	7/12/24	33.938378	-117.653713	V	Singing.
Least Bell's Vireo	LBV8	7/23/24	33.938126	-117.653676	V	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.938665	-117.653695	V?	Singing.
Least Bell's Vireo	LBV4	6/11/24	33.943512	-117.655411	W	Singing.
Least Bell's Vireo	LBV5	6/21/24	33.943335	-117.655355	W	Singing.
Least Bell's Vireo	LBV6	7/2/24	33.943485	-117.655144	W	Calling.
Least Bell's Vireo	LBV7	7/12/24	33.943317	-117.654806	W	Multiple: Calls, probable family group
Least Bell's Vireo	LBV8	7/23/24	33.943453	-117.655148	W	Singing.

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Attachment C: Yellow Warbler detections

Species	Date	Lat	Long	Notes
Yellow Warbler	5/11/24	33.93571	-117.656231	Singing.
Yellow Warbler	5/11/24	33.934436	-117.654609	Singing.
Yellow Warbler	5/11/24	33.935895	-117.655295	Singing.
Yellow Warbler	5/11/24	33.937045	-117.654823	Singing.
Yellow Warbler	5/11/24	33.937768	-117.653201	Singing.
Yellow Warbler	5/11/24	33.938236	-117.65326	Singing.
Yellow Warbler	5/11/24	33.938402	-117.652737	Singing.
Yellow Warbler	5/11/24	33.938626	-117.652992	Calling.
Yellow Warbler	5/11/24	33.938671	-117.653433	Calling.
Yellow Warbler	5/11/24	33.938392	-117.65286	Singing.
Yellow Warbler	5/11/24	33.938759	-117.653301	Singing.
Yellow Warbler	5/11/24	33.938407	-117.653951	Singing.
Yellow Warbler	5/11/24	33.9391	-117.653656	Singing.
Yellow Warbler	5/11/24	33.939036	-117.653179	Singing.
Yellow Warbler	5/11/24	33.939523	-117.654033	Singing.
Yellow Warbler	5/11/24	33.939515	-117.653365	Singing.
Yellow Warbler	5/11/24	33.939289	-117.653665	Singing.
Yellow Warbler	5/11/24	33.93956	-117.652765	Singing.
Yellow Warbler	5/11/24	33.939956	-117.652915	Singing.
Yellow Warbler	5/11/24	33.93993	-117.653233	Singing.
Yellow Warbler	5/11/24	33.94042	-117.652874	Singing.
Yellow Warbler	5/11/24	33.940638	-117.653138	Singing.
Yellow Warbler	5/11/24	33.940635	-117.653597	Singing.
Yellow Warbler	5/11/24	33.939858	-117.654701	Singing.
Yellow Warbler	5/11/24	33.940122	-117.654846	Singing.
Yellow Warbler	5/11/24	33.939583	-117.654737	Singing.
Yellow Warbler	5/11/24	33.939617	-117.655082	Singing.
Yellow Warbler	5/11/24	33.940382	-117.654628	Singing.
Yellow Warbler	5/11/24	33.940567	-117.654987	Singing.
Yellow Warbler	5/11/24	33.938976	-117.655223	Singing.
Yellow Warbler	5/11/24	33.938151	-117.655319	Singing.
Yellow Warbler	5/11/24	33.938249	-117.656123	Singing.
Yellow Warbler	5/11/24	33.937781	-117.655518	Singing.
Yellow Warbler	5/11/24	33.937223	-117.656359	Singing.
Yellow Warbler	5/11/24	33.93734	-117.656641	Singing.
Yellow Warbler	5/11/24	33.937608	-117.656813	Singing.
Yellow Warbler	5/11/24	33.936601	-117.656336	Singing.
Yellow Warbler	5/11/24	33.935508	-117.656386	Singing.
Yellow Warbler	5/11/24	33.941406	-117.654769	Singing.
Yellow Warbler	5/11/24	33.941233	-117.654492	Singing.
Yellow Warbler	5/11/24	33.942305	-117.654963	Singing.

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Yellow Warbler	5/11/24	33.941306	-117.655259	Singing.
Yellow Warbler	5/11/24	33.942873	-117.654918	Singing.
Yellow Warbler	5/11/24	33.943138	-117.65379	Singing.
Yellow Warbler	5/11/24	33.940559	-117.653845	Singing.
Yellow Warbler	5/11/24	33.940552	-117.653677	Singing.
Yellow Warbler	5/11/24	33.940624	-117.653202	Singing.
Yellow Warbler	5/11/24	33.940884	-117.653186	Singing.
Yellow Warbler	5/11/24	33.940393	-117.652674	Singing.
Yellow Warbler	5/11/24	33.940657	-117.652134	Singing.
Yellow Warbler	5/21/24	33.935754	-117.655205	Singing.
Yellow Warbler	5/21/24	33.937405	-117.654902	Singing.
Yellow Warbler	5/21/24	33.937557	-117.654484	Singing.
Yellow Warbler	5/21/24	33.937324	-117.654201	Singing.
Yellow Warbler	5/21/24	33.937924	-117.653564	Singing.
Yellow Warbler	5/21/24	33.938355	-117.653432	Singing.
Yellow Warbler	5/21/24	33.938576	-117.653421	Singing.
Yellow Warbler	5/21/24	33.938873	-117.653227	Singing.
Yellow Warbler	5/21/24	33.939094	-117.653466	Singing.
Yellow Warbler	5/21/24	33.938885	-117.653677	Singing.
Yellow Warbler	5/21/24	33.938847	-117.653879	Singing.
Yellow Warbler	5/21/24	33.938636	-117.654307	Singing.
Yellow Warbler	5/21/24	33.939633	-117.654123	Singing.
Yellow Warbler	5/21/24	33.939603	-117.653548	Singing.
Yellow Warbler	5/21/24	33.938848	-117.653076	Singing.
Yellow Warbler	5/21/24	33.939548	-117.652816	Singing.
Yellow Warbler	5/21/24	33.93942	-117.652403	Singing.
Yellow Warbler	5/21/24	33.940264	-117.652874	Singing.
Yellow Warbler	5/21/24	33.940419	-117.65353	Singing.
Yellow Warbler	5/21/24	33.940069	-117.653965	Singing.
Yellow Warbler	5/21/24	33.93958	-117.653993	Calling.
Yellow Warbler	5/21/24	33.939317	-117.654249	Singing.
Yellow Warbler	5/21/24	33.940282	-117.653308	Singing.
Yellow Warbler	5/21/24	33.94053	-117.65391	Singing.
Yellow Warbler	5/21/24	33.940738	-117.653078	Singing.
Yellow Warbler	5/21/24	33.940497	-117.652796	Singing.
Yellow Warbler	5/21/24	33.940504	-117.652949	Singing.
Yellow Warbler	5/21/24	33.940688	-117.652426	Singing.
Yellow Warbler	5/21/24	33.940735	-117.654536	Singing.
Yellow Warbler	5/21/24	33.94115	-117.654391	Singing.
Yellow Warbler	5/21/24	33.940635	-117.654869	Singing.
Yellow Warbler	5/21/24	33.940918	-117.655231	Singing.
Yellow Warbler	5/21/24	33.940693	-117.655339	Singing.
Yellow Warbler	5/21/24	33.94025	-117.65558	Singing.
Yellow Warbler	5/21/24	33.940597	-117.655672	Singing.

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Yellow Warbler	5/21/24	33.939833	-117.654735	Singing.
Yellow Warbler	5/21/24	33.93935	-117.655081	Singing.
Yellow Warbler	5/21/24	33.93828	-117.655461	Singing.
Yellow Warbler	5/21/24	33.937936	-117.655486	Singing.
Yellow Warbler	5/21/24	33.937794	-117.656329	Singing.
Yellow Warbler	5/21/24	33.938041	-117.656329	Pair.
Yellow Warbler	5/21/24	33.937433	-117.656302	Singing.
Yellow Warbler	5/21/24	33.937301	-117.656004	Singing.
Yellow Warbler	5/21/24	33.937419	-117.656649	Singing.
Yellow Warbler	5/21/24	33.936438	-117.656232	Singing.
Yellow Warbler	5/31/24	33.934814	-117.657599	Singing.
Yellow Warbler	5/31/24	33.935818	-117.656446	2: singing and calling
Yellow Warbler	5/31/24	33.935866	-117.655344	Singing.
Yellow Warbler	5/31/24	33.936577	-117.65631	Singing.
Yellow Warbler	5/31/24	33.937116	-117.656267	Singing.
Yellow Warbler	5/31/24	33.937429	-117.656024	Singing.
Yellow Warbler	5/31/24	33.937692	-117.656128	Singing.
Yellow Warbler	5/31/24	33.937988	-117.655692	Singing.
Yellow Warbler	5/31/24	33.938224	-117.656194	Singing.
Yellow Warbler	5/31/24	33.938333	-117.655565	Singing.
Yellow Warbler	5/31/24	33.939076	-117.65532	Singing.
Yellow Warbler	5/31/24	33.939796	-117.655092	Singing.
Yellow Warbler	5/31/24	33.939713	-117.656267	Singing.
Yellow Warbler	5/31/24	33.43954	-117.654801	Singing.
Yellow Warbler	5/31/24	33.939896	-117.654795	Singing.
Yellow Warbler	5/31/24	33.940359	-117.654795	Singing.
Yellow Warbler	5/31/24	33.941177	-117.654283	Singing.
Yellow Warbler	5/31/24	33.942308	-117.654549	Singing.
Yellow Warbler	5/31/24	33.940906	-117.655376	Singing.
Yellow Warbler	5/31/24	33.941142	-117.654597	Singing.
Yellow Warbler	5/31/24	33.941268	-117.654831	M w/ 2 begging juvs
Yellow Warbler	5/31/24	33.940486	-117.655081	Singing.
Yellow Warbler	5/31/24	33.94063	-117.654949	2: calling
Yellow Warbler	5/31/24	33.940618	-117.655476	Singing.
Yellow Warbler	5/31/24	33.94061	-117.653693	Singing.
Yellow Warbler	5/31/24	33.940848	-117.653763	Singing.
Yellow Warbler	5/31/24	33.94081	-117.653316	Singing.
Yellow Warbler	5/31/24	33.940407	-117.653086	Singing.
Yellow Warbler	5/31/24	33.940497	-117.652664	Singing.
Yellow Warbler	5/31/24	33.940528	-117.652502	Singing.
Yellow Warbler	5/31/24	33.939938	-117.653905	Singing.
Yellow Warbler	5/31/24	33.939668	-117.653966	Singing.
Yellow Warbler	5/31/24	33.939547	-117.653782	Singing.
Yellow Warbler	5/31/24	33.939325	-117.654126	Singing.

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Yellow Warbler	5/31/24	33.938818	-117.653598	Singing.
Yellow Warbler	5/31/24	33.938674	-117.653952	Singing.
Yellow Warbler	5/31/24	33.939149	-117.652757	Singing.
Yellow Warbler	5/31/24	33.938799	-117.652748	Singing.
Yellow Warbler	5/31/24	33.938682	-117.652989	Singing.
Yellow Warbler	5/31/24	33.938543	-117.653266	Singing.
Yellow Warbler	5/31/24	33.938635	-117.653587	Singing.
Yellow Warbler	5/31/24	33.93882	-117.653846	Singing.
Yellow Warbler	5/31/24	33.939232	-117.653689	Singing.
Yellow Warbler	6/11/24	33.934871	-117.656744	Singing.
Yellow Warbler	6/11/24	33.935546	-117.656235	Singing.
Yellow Warbler	6/11/24	33.935738	-117.655317	Singing.
Yellow Warbler	6/11/24	33.937363	-117.654163	Singing.
Yellow Warbler	6/11/24	33.937947	-117.65484	Singing.
Yellow Warbler	6/11/24	33.938663	-117.654593	Singing.
Yellow Warbler	6/11/24	33.939048	-117.654295	Singing.
Yellow Warbler	6/11/24	33.939022	-117.654025	Singing.
Yellow Warbler	6/11/24	33.937681	-117.653346	Singing.
Yellow Warbler	6/11/24	33.937621	-117.653582	Singing.
Yellow Warbler	6/11/24	33.938281	-117.653118	Singing.
Yellow Warbler	6/11/24	33.938528	-117.653309	Singing.
Yellow Warbler	6/11/24	33.93855	-117.653371	Singing.
Yellow Warbler	6/11/24	33.939615	-117.653321	Singing.
Yellow Warbler	6/11/24	33.939586	-117.652993	Singing.
Yellow Warbler	6/11/24	33.93986	-117.652968	Singing.
Yellow Warbler	6/11/24	33.93986	-117.653326	Singing.
Yellow Warbler	6/11/24	33.939876	-117.653521	Singing.
Yellow Warbler	6/11/24	33.940715	-117.654427	Singing.
Yellow Warbler	6/11/24	33.940736	-117.653734	Singing.
Yellow Warbler	6/11/24	33.940728	-117.652683	Singing.
Yellow Warbler	6/11/24	33.940325	-117.652335	Singing.
Yellow Warbler	6/11/24	33.941448	-117.654244	Singing.
Yellow Warbler	6/11/24	33.941061	-117.654255	Singing.
Yellow Warbler	6/11/24	33.942945	-117.655119	Singing.
Yellow Warbler	6/11/24	33.943359	-117.655176	Singing.
Yellow Warbler	6/11/24	33.942492	-117.654981	Singing.
Yellow Warbler	6/11/24	33.941505	-117.655041	Singing.
Yellow Warbler	6/11/24	33.941459	-117.655431	Singing.
Yellow Warbler	6/11/24	33.939405	-117.655061	Singing.
Yellow Warbler	6/11/24	33.939862	-117.655606	Singing.
Yellow Warbler	6/11/24	33.93811	-117.655421	Singing.
Yellow Warbler	6/11/24	33.938109	-117.656034	Singing.
Yellow Warbler	6/11/24	33.937596	-117.656244	Singing.
Yellow Warbler	6/11/24	33.937317	-117.655833	Singing.

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Yellow Warbler	6/11/24	33.937585	-117.656549	Singing.
Yellow Warbler	6/11/24	33.936194	-117.656281	Singing.
Yellow Warbler	6/21/24	33.935813	-117.656468	Singing.
Yellow Warbler	6/21/24	33.935817	-117.656556	Singing.
Yellow Warbler	6/21/24	33.937287	-117.655972	Singing.
Yellow Warbler	6/21/24	33.93724	-117.656216	Singing.
Yellow Warbler	6/21/24	33.937788	-117.656104	Singing.
Yellow Warbler	6/21/24	33.937696	-117.655738	Singing.
Yellow Warbler	6/21/24	33.937636	-117.656602	Singing.
Yellow Warbler	6/21/24	33.938354	-117.655902	Singing.
Yellow Warbler	6/21/24	33.938623	-117.655545	Singing.
Yellow Warbler	6/21/24	33.938592	-117.655232	Singing.
Yellow Warbler	6/21/24	33.939456	-117.654885	Singing.
Yellow Warbler	6/21/24	33.940079	-117.65561	Singing.
Yellow Warbler	6/21/24	33.93991	-117.654817	Singing.
Yellow Warbler	6/21/24	33.94201	-117.654108	Singing.
Yellow Warbler	6/21/24	33.941537	-117.654355	Singing.
Yellow Warbler	6/21/24	33.943713	-117.654372	Singing.
Yellow Warbler	6/21/24	33.94361	-117.655411	Singing.
Yellow Warbler	6/21/24	33.941477	-117.655106	Singing.
Yellow Warbler	6/21/24	33.941805	-117.655636	Singing.
Yellow Warbler	6/21/24	33.940858	-117.655173	Singing.
Yellow Warbler	6/21/24	33.940231	-117.655261	Singing.
Yellow Warbler	6/21/24	33.940559	-117.655348	Singing.
Yellow Warbler	6/21/24	33.940558	-117.653709	Singing.
Yellow Warbler	6/21/24	33.940385	-117.65322	Singing.
Yellow Warbler	6/21/24	33.940025	-117.653126	Singing.
Yellow Warbler	6/21/24	33.940596	-117.652934	Singing.
Yellow Warbler	6/21/24	33.940406	-117.652581	Singing.
Yellow Warbler	6/21/24	33.940059	-117.654051	Singing.
Yellow Warbler	6/21/24	33.939865	-117.654239	Singing.
Yellow Warbler	6/21/24	33.939648	-117.653881	Singing.
Yellow Warbler	6/21/24	33.939142	-117.653833	Singing.
Yellow Warbler	6/21/24	33.939336	-117.654316	Singing.
Yellow Warbler	6/21/24	33.939717	-117.653113	Singing.
Yellow Warbler	6/21/24	33.939231	-117.653073	Singing.
Yellow Warbler	6/21/24	33.938987	-117.653154	Singing.
Yellow Warbler	6/21/24	33.939171	-117.653679	Singing.
Yellow Warbler	6/21/24	33.939238	-117.653906	Singing.
Yellow Warbler	6/21/24	33.938108	-117.65422	Singing.
Yellow Warbler	6/21/24	33.938244	-117.65397	Singing.
Yellow Warbler	6/21/24	33.93885	-117.654235	Singing.
Yellow Warbler	6/21/24	33.938861	-117.654568	Singing.
Yellow Warbler	6/21/24	33.938678	-117.654534	Singing.

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Yellow Warbler	6/21/24	33.937744	-117.654893	Singing.
Yellow Warbler	6/21/24	33.93736	-117.655023	Singing.
Yellow Warbler	6/21/24	33.9358	-117.655296	Singing.
Yellow Warbler	7/2/24	33.934251	-117.657755	Singing.
Yellow Warbler	7/2/24	33.935344	-117.656578	Calling.
Yellow Warbler	7/2/24	33.93609	-117.656313	Singing.
Yellow Warbler	7/2/24	33.937362	-117.656219	Singing.
Yellow Warbler	7/2/24	33.937692	-117.656235	Singing.
Yellow Warbler	7/2/24	33.937851	-117.655983	Singing.
Yellow Warbler	7/2/24	33.938235	-117.65606	Singing.
Yellow Warbler	7/2/24	33.939845	-117.656437	Singing.
Yellow Warbler	7/2/24	33.938671	-117.655586	2, calling.
Yellow Warbler	7/2/24	33.939314	-117.654954	Singing.
Yellow Warbler	7/2/24	33.939862	-117.654799	Singing.
Yellow Warbler	7/2/24	33.940371	-117.654915	Singing.
Yellow Warbler	7/2/24	33.943046	-117.655341	Singing.
Yellow Warbler	7/2/24	33.941601	-117.655172	Singing.
Yellow Warbler	7/2/24	33.941829	-117.654838	Singing.
Yellow Warbler	7/2/24	33.940918	-117.655022	Singing.
Yellow Warbler	7/2/24	33.941116	-117.65482	Singing.
Yellow Warbler	7/2/24	33.940803	-117.654332	Singing.
Yellow Warbler	7/2/24	33.940428	-117.653618	Singing.
Yellow Warbler	7/2/24	33.94059	-117.65315	Singing.
Yellow Warbler	7/2/24	33.939961	-117.653173	Singing.
Yellow Warbler	7/2/24	33.940515	-117.652757	Singing.
Yellow Warbler	7/2/24	33.940662	-117.652537	Singing.
Yellow Warbler	7/2/24	33.940378	-117.652451	Singing.
Yellow Warbler	7/2/24	33.940787	-117.652669	Multiple calling birds, family group?
Yellow Warbler	7/2/24	33.940862	-117.652712	F carrying food
Yellow Warbler	7/2/24	33.939865	-117.653432	Singing.
Yellow Warbler	7/2/24	33.939752	-117.653891	Singing.
Yellow Warbler	7/2/24	33.939631	-117.652762	Singing.
Yellow Warbler	7/2/24	33.939214	-117.652844	Singing.
Yellow Warbler	7/2/24	33.938691	-117.652939	Singing.
Yellow Warbler	7/2/24	33.938706	-117.652913	Singing.
Yellow Warbler	7/2/24	33.938665	-117.652445	Singing.
Yellow Warbler	7/2/24	33.938281	-117.653358	Singing.
Yellow Warbler	7/2/24	33.938464	-117.652927	Singing.
Yellow Warbler	7/2/24	33.938107	-117.653366	Singing.
Yellow Warbler	7/2/24	33.938944	-117.653711	Singing.
Yellow Warbler	7/2/24	33.938868	-117.654328	Singing.
Yellow Warbler	7/2/24	33.938959	-117.654409	Singing.
Yellow Warbler	7/2/24	33.938322	-117.654678	Singing.
Yellow Warbler	7/2/24	33.937505	-117.654622	Singing.

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Yellow Warbler	7/2/24	33.937624	-117.654805	2 chasing
Yellow Warbler	7/2/24	33.936055	-117.655167	Singing.
Yellow Warbler	7/12/24	33.934874	-117.657455	Singing.
Yellow Warbler	7/12/24	33.936796	-117.655942	Singing.
Yellow Warbler	7/12/24	33.936421	-117.656262	Calling.
Yellow Warbler	7/12/24	33.936759	-117.65597	Calling.
Yellow Warbler	7/12/24	33.937537	-117.656078	2, singing, calling
Yellow Warbler	7/12/24	33.937695	-117.656843	Singing.
Yellow Warbler	7/12/24	33.937899	-117.656139	Singing.
Yellow Warbler	7/12/24	33.938621	-117.655558	Calling.
Yellow Warbler	7/12/24	33.938334	-117.655808	Singing.
Yellow Warbler	7/12/24	33.938792	-117.655219	Singing.
Yellow Warbler	7/12/24	33.93974	-117.654797	Singing.
Yellow Warbler	7/12/24	33.940115	-117.655521	Singing.
Yellow Warbler	7/12/24	33.940065	-117.654674	Singing.
Yellow Warbler	7/12/24	33.940711	-117.654501	Singing.
Yellow Warbler	7/12/24	33.941667	-117.654528	2, singing, calling
Yellow Warbler	7/12/24	33.942377	-117.655046	Singing.
Yellow Warbler	7/12/24	33.943559	-117.655358	Calling.
Yellow Warbler	7/12/24	33.941572	-117.655583	Singing.
Yellow Warbler	7/12/24	33.940717	-117.655083	Singing.
Yellow Warbler	7/12/24	33.940381	-117.654976	Singing.
Yellow Warbler	7/12/24	33.940557	-117.653296	Singing.
Yellow Warbler	7/12/24	33.940618	-117.652795	Singing.
Yellow Warbler	7/12/24	33.940735	-117.652474	4, family group
Yellow Warbler	7/12/24	33.939973	-117.654026	Singing.
Yellow Warbler	7/12/24	33.939731	-117.653888	Singing.
Yellow Warbler	7/12/24	33.939986	-117.65322	Singing.
Yellow Warbler	7/12/24	33.939777	-117.65292	Singing.
Yellow Warbler	7/12/24	33.93878	-117.653136	2, singing, calling
Yellow Warbler	7/12/24	33.938454	-117.653556	Singing.
Yellow Warbler	7/12/24	33.93763	-117.653281	Singing.
Yellow Warbler	7/12/24	33.937751	-117.653747	Singing.
Yellow Warbler	7/12/24	33.938861	-117.654574	Calling.
Yellow Warbler	7/12/24	33.938636	-117.654163	Singing.
Yellow Warbler	7/12/24	33.938148	-117.654576	Singing.
Yellow Warbler	7/12/24	33.938209	-117.654185	Singing.
Yellow Warbler	7/12/24	33.937935	-117.65466	Singing.
Yellow Warbler	7/12/24	33.937605	-117.654406	Singing.
Yellow Warbler	7/23/24	33.937374	-117.655728	Singing.
Yellow Warbler	7/23/24	33.936868	-117.656246	Calling.
Yellow Warbler	7/23/24	33.93799	-117.656187	Singing.
Yellow Warbler	7/23/24	33.938095	-117.656293	multiple: calls
Yellow Warbler	7/23/24	33.939038	-117.655601	Calling.

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Yellow Warbler	7/23/24	33.938939	-117.655263	Singing.
Yellow Warbler	7/23/24	33.93991	-117.654895	Singing.
Yellow Warbler	7/23/24	33.941893	-117.654528	multiple: calls
Yellow Warbler	7/23/24	33.941805	-117.655633	Singing.
Yellow Warbler	7/23/24	33.941369	-117.655615	Singing.
Yellow Warbler	7/23/24	33.940987	-117.655063	Singing.
Yellow Warbler	7/23/24	33.940679	-117.65346	Singing.
Yellow Warbler	7/23/24	33.940102	-117.652747	Singing.
Yellow Warbler	7/23/24	33.940698	-117.652306	Calling.
Yellow Warbler	7/23/24	33.939501	-117.653574	Singing.
Yellow Warbler	7/23/24	33.93997	-117.653694	Singing.
Yellow Warbler	7/23/24	33.939597	-117.654014	Singing.
Yellow Warbler	7/23/24	33.939334	-117.652683	Singing.
Yellow Warbler	7/23/24	33.939155	-117.653111	Singing.
Yellow Warbler	7/23/24	33.938691	-117.652827	Singing.
Yellow Warbler	7/23/24	33.938088	-117.652939	Singing.
Yellow Warbler	7/23/24	33.937462	-117.654363	Female.
Yellow Warbler	7/23/24	33.937157	-117.654197	Singing.
Yellow Warbler	7/23/24	33.937724	-117.654806	Family group.

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Attachment D: Yellow-breasted Chat detections

Species	Date	Lat	Long	Notes
Yellow-breasted Chat	5/11/24	33.936479	-117.654105	Singing.
Yellow-breasted Chat	5/11/24	33.938735	-117.653438	Singing.
Yellow-breasted Chat	5/11/24	33.939783	-117.653769	Singing.
Yellow-breasted Chat	5/11/24	33.940378	-117.652883	Singing.
Yellow-breasted Chat	5/11/24	33.940229	-117.656168	Singing.
Yellow-breasted Chat	5/11/24	33.941012	-117.655042	Singing.
Yellow-breasted Chat	5/11/24	33.943287	-117.655007	Singing.
Yellow-breasted Chat	5/21/24	33.938116	-117.653754	Singing.
Yellow-breasted Chat	5/21/24	33.939422	-117.653174	Singing.
Yellow-breasted Chat	5/21/24	33.940264	-117.652874	Singing.
Yellow-breasted Chat	5/21/24	33.940274	-117.652069	Singing.
Yellow-breasted Chat	5/21/24	33.941426	-117.655199	Singing.
Yellow-breasted Chat	5/31/24	33.940096	-117.65616	Singing.
Yellow-breasted Chat	5/31/24	33.939762	-117.652477	Singing.
Yellow-breasted Chat	5/31/24	33.940605	-117.652677	Singing.
Yellow-breasted Chat	5/31/24	33.939053	-117.653765	Singing.
Yellow-breasted Chat	5/31/24	33.939741	-117.653444	Singing.
Yellow-breasted Chat	5/31/24	33.938438	-117.654073	Singing.
Yellow-breasted Chat	6/11/24	33.93755	-117.653864	Singing.
Yellow-breasted Chat	6/11/24	33.937992	-117.654597	Singing.
Yellow-breasted Chat	6/11/24	33.939242	-117.65407	Singing.
Yellow-breasted Chat	6/11/24	33.939593	-117.653541	Singing.
Yellow-breasted Chat	6/11/24	33.940715	-117.654427	Singing.
Yellow-breasted Chat	6/11/24	33.940612	-117.653161	Singing.
Yellow-breasted Chat	6/11/24	33.940448	-117.65242	Singing.
Yellow-breasted Chat	6/11/24	33.943512	-117.655411	Calling.
Yellow-breasted Chat	6/21/24	33.940081	-117.656037	Singing.
Yellow-breasted Chat	6/21/24	33.939117	-117.654493	Singing.
Yellow-breasted Chat	6/21/24	33.943091	-117.655383	Singing.
Yellow-breasted Chat	6/21/24	33.941346	-117.655728	Singing.
Yellow-breasted Chat	6/21/24	33.940659	-117.652962	Singing.
Yellow-breasted Chat	6/21/24	33.940383	-117.65203	Singing.
Yellow-breasted Chat	6/21/24	33.937992	-117.653957	Singing.
Yellow-breasted Chat	7/2/24	33.93685	-117.65529	Singing.
Yellow-breasted Chat	7/2/24	33.943557	-117.65538	Singing.
Yellow-breasted Chat	7/2/24	33.940308	-117.652317	Singing.
Yellow-breasted Chat	7/2/24	33.939872	-117.653262	2 juvs. Calling.
Yellow-breasted Chat	7/2/24	33.939631	-117.652762	Singing.
Yellow-breasted Chat	7/2/24	33.938691	-117.652939	Singing.
Yellow-breasted Chat	7/2/24	33.937406	-117.654938	Singing.

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Yellow-breasted Chat	7/12/24	33.939951	-117.655744	Singing.
Yellow-breasted Chat	7/12/24	33.942042	-117.656216	Singing.
Yellow-breasted Chat	7/12/24	33.940054	-117.652754	2, singing + juv.
Yellow-breasted Chat	7/12/24	33.937754	-117.653795	Singing.
Yellow-breasted Chat	7/23/24	33.939419	-117.652798	Singing.
Yellow-breasted Chat	7/23/24	33.938798	-117.653573	Singing.

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Attachment E: Cumulative Bird List

Wood Duck	Aix sponsa
Mallard	Anas platyrhynchos
Rock Pigeon (Feral Pigeon)	Columba livia
Mourning Dove	Zenaida macroura
Black-chinned Hummingbird	Archilochus alexandri
Anna's Hummingbird	Calypte anna
Allen's Hummingbird	Selasphorus sasin
Killdeer	Charadrius vociferus
Double-crested Cormorant	Nannopterum auritum
Black-crowned Night Heron	Nycticorax nycticorax
Snowy Egret	Egretta thula
Green Heron	Butorides virescens
Great Egret	Ardea alba
Great Blue Heron	Ardea herodias
White-faced Ibis	Plegadis chihi
Turkey Vulture	Cathartes aura
Cooper's Hawk	Accipiter cooperii
Red-tailed Hawk	Buteo jamaicensis
Barn Owl	Tyto alba
Downy Woodpecker	Dryobates pubescens
Nuttall's Woodpecker	Dryobates nuttallii
Northern Flicker (Red-shafted)	Colaptes auratus [cafer Group]
Western Wood-Pewee	Contopus sordidulus
Western Flycatcher (Pacific-slope)	Empidonax difficilis [difficilis Group]
Black Phoebe	Sayornis nigricans
Vermilion Flycatcher	Pyrocephalus rubinus
Ash-throated Flycatcher	Myiarchus cinerascens
Cassin's Kingbird	Tyrannus vociferans
Western Kingbird	Tyrannus verticalis
Bell's Vireo	Vireo bellii
Hutton's Vireo	Vireo huttoni
American Crow	Corvus brachyrhynchos
Common Raven	Corvus corax
Northern Rough-winged Swallow	Stelgidopteryx serripennis
Barn Swallow	Hirundo rustica
Cliff Swallow	Petrochelidon pyrrhonota
Bushtit	Psaltriparus minimus
House Wren	Troglodytes aedon
Bewick's Wren	Thryomanes bewickii
European Starling	Sturnus vulgaris
Western Bluebird	Sialia mexicana
Swainson's Thrush	Catharus ustulatus

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American Robin	Turdus migratorius
Cedar Waxwing	Bombycilla cedrorum
Scaly-breasted Munia	Lonchura punctulata
House Finch	Haemorhous mexicanus
Lesser Goldfinch	Spinus psaltria
American Goldfinch	Spinus tristis
Lark Sparrow	Chondestes grammacus
Song Sparrow	Melospiza melodia
California Towhee	Melozone crissalis
Spotted Towhee	Pipilo maculatus
Yellow-breasted Chat	Icteria virens
Hooded Oriole	Icterus cucullatus
Bullock's Oriole	Icterus bullockii
Red-winged Blackbird	Agelaius phoeniceus
Great-tailed Grackle	Quiscalus mexicanus
Orange-crowned Warbler	Leiothlypis celata
Common Yellowthroat	Geothlypis trichas
Yellow Warbler	Setophaga petechia
Townsend's Warbler	Setophaga townsendi
Wilson's Warbler	Cardellina pusilla
Western Tanager	Piranga ludoviciana
Black-headed Grosbeak	Pheucticus melanocephalus
Blue Grosbeak	Passerina caerulea
Lazuli Bunting	Passerina amoena

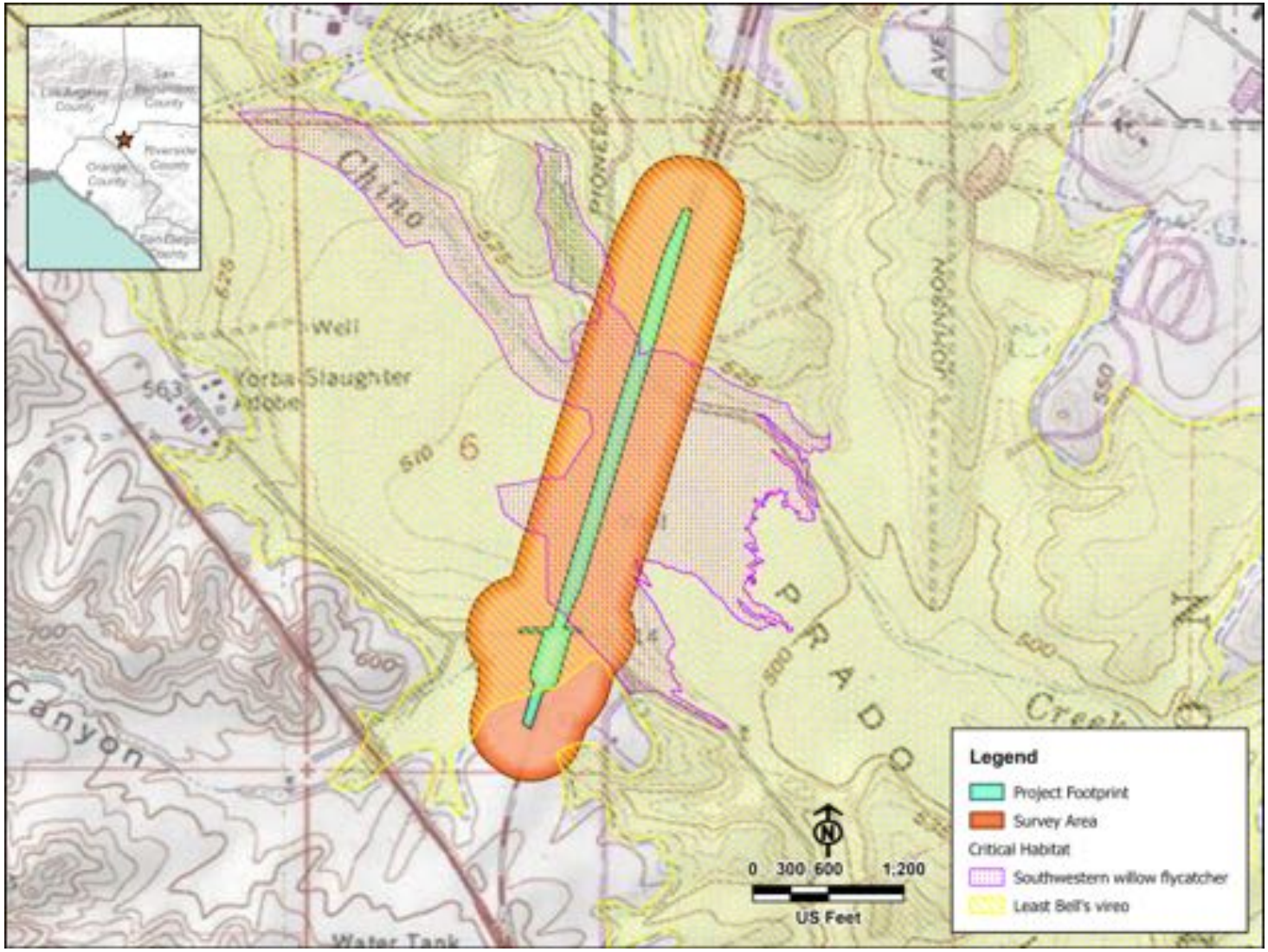


Figure 1: The survey area along Euclid Avenue at Chino Creek is shown on a USGS 1:12000 scale topographic map with target species critical habitat. The inset shows the location of the survey area on a regional scale.

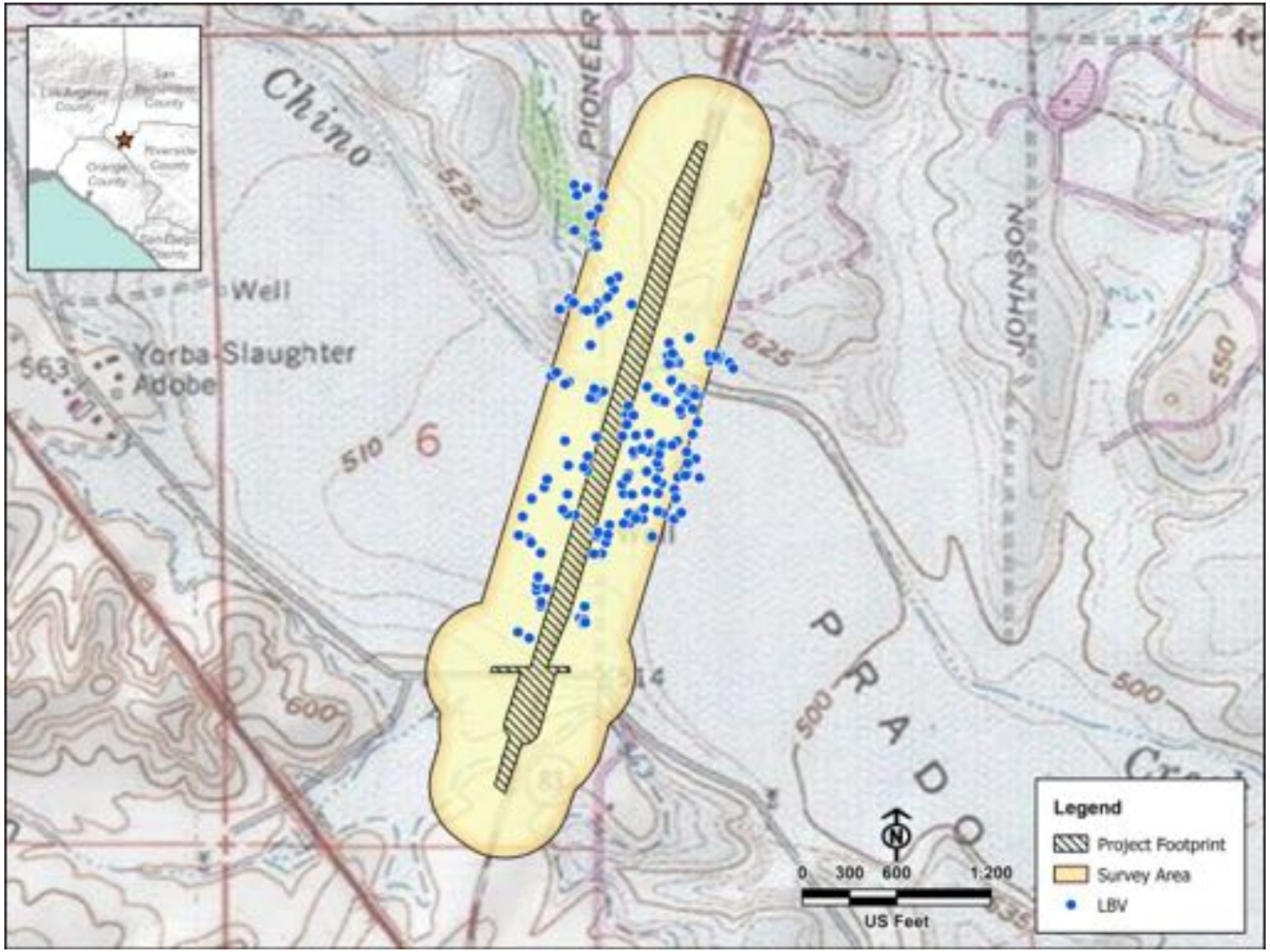


Figure 3: Bell's Vireo detections. USGS base map 1:9,600.

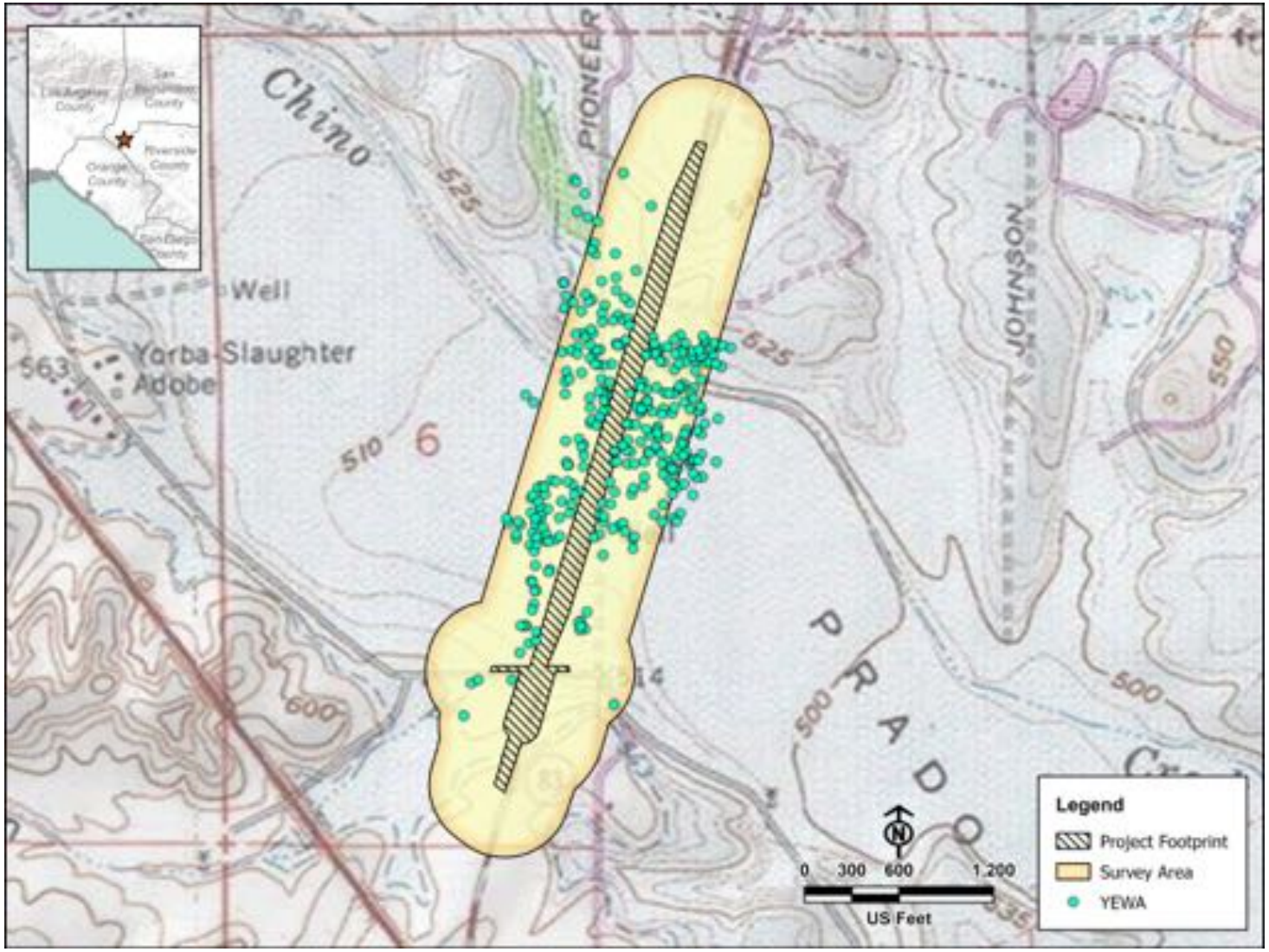


Figure 3: Yellow Warbler detections. USGS base map 1:9,600.

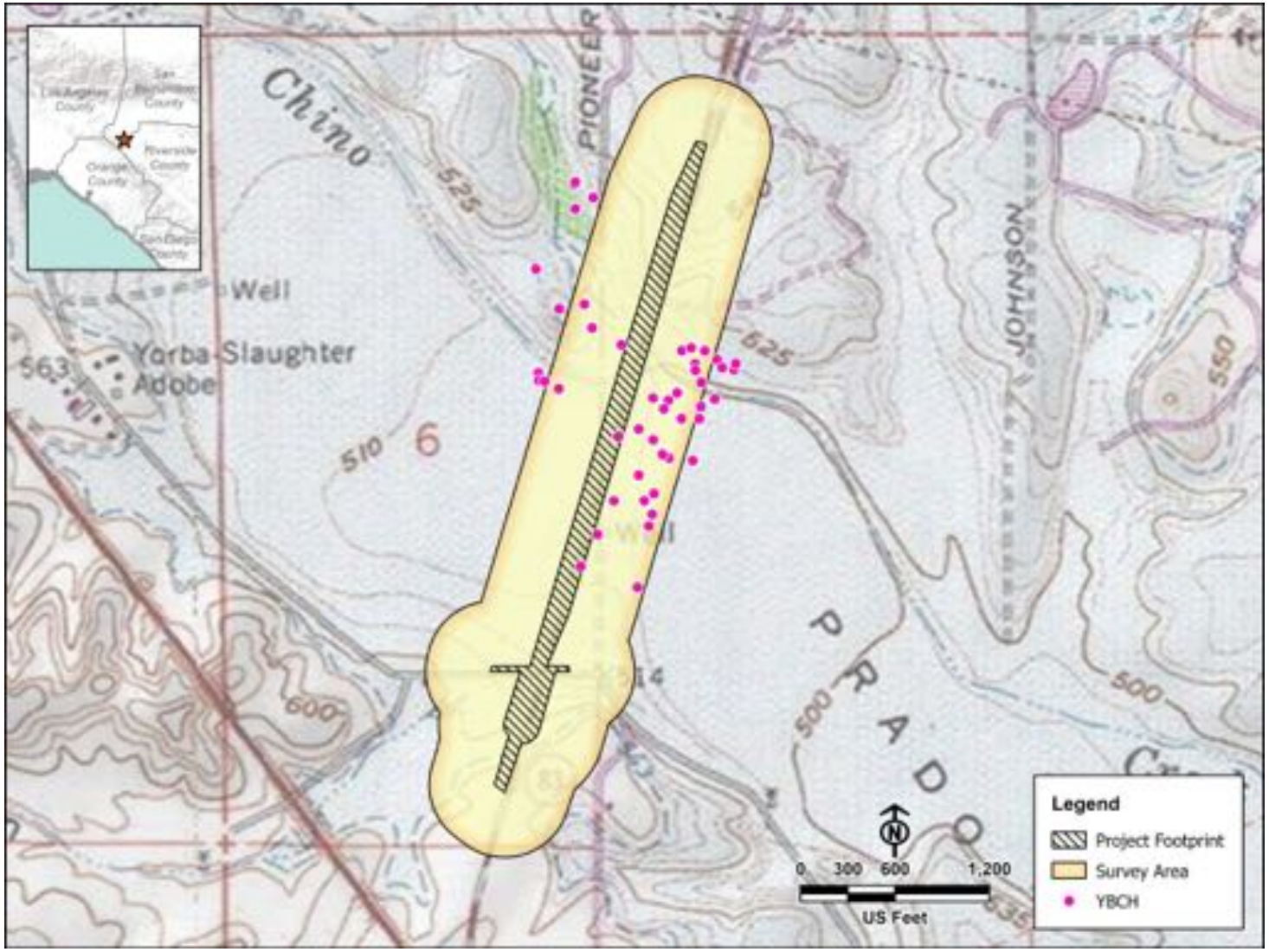


Figure 4: Yellow-breasted Chat detections. USGS base map 1:9,600.

Attachment 7.

Focused Fish and Herpetofauna Survey Report

Euclid Avenue Bridge Project
Focused Fish and Herpetofauna Surveys
City of Chino, California



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November 2024

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Introduction

Applied Ecology Solutions Environmental has prepared this focused survey report to document existing biological resources associated with the proposed Euclid Avenue Bridge project site ("project"). This technical report outlines the existing environmental conditions including the potential occurrence of special-status aquatic species and herpetofauna and their habitats in support of the project's California Environmental Quality Act (CEQA) impact analysis for biological resources.

1.1 Project Location

The proposed Euclid Avenue Bridge Project site is located along Euclid Avenue (State Route 83) between Pine Avenue and State Route 71 within the City of Chino, San Bernardino County, California (see Figure 1 – Regional Location). The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/State Route 71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82') (see Figure 2 – Site Vicinity). The Project will be conducted entirely within the public roadway right-of-way. The project site is depicted on the Prado Dam USGS 7.5-minute topographic quadrangle map within Section 6, Township 6 South and Range 7 West.

This portion of Euclid Avenue crosses Chino Creek and is located within the northern portion of the Prado Flood Control Basin in San Bernardino County. The Project site is located entirely below the United States Army Corps of Engineers (USACE) designated inundation elevation for Prado Dam and is considered subject to flooding from normal operations of the Dam. The USACE Los Angeles District is presently embarking on the Prado Dam Spillway Modification project to raise the Dam and Spillway thereby increasing the capacity of Prado Basin. In addition, the Project site overlaps with a Congressionally authorized restoration project associated with the USACE and Orange County Water District (OCWD) Prado Basin Ecosystem Restoration and Water Conservation Integrated Feasibility Report.

1.2 Project Description

The proposed project is to raise Euclid Avenue above the Prado Basin 50-year inundation pool elevation by installing a pile supported viaduct across Chino Creek. Viaduct installation would allow for the widening of Euclid Avenue from two to four lanes resulting in increased traffic capacity. Rasing Euclid Avenue would prevent future closures during storm events, thereby improving safety for motorists and pedestrians by reducing the possibility of encountering flood waters and enhancing mobility and circulation for the community during the rainy season.

Proposed project retaining walls and imported fill soils will be installed beyond jurisdictional limits and development would limit permanent impacts in non-wetland waters of the United States to less than 0.5 acre and permanent impacts in wetland waters of the United States to less than 0.1 acre. Project development would require an estimated 20,000 cubic yards of cut and 96,000 cubic yards of fill material. Cut material will not be suitable to use as fill which will be imported along existing roadways from areas beyond the project site. Fill material is anticipated to be secured elsewhere in the Prado Basin, potentially within USACE federal lands and/or easements.

Figure 1. Regional Location

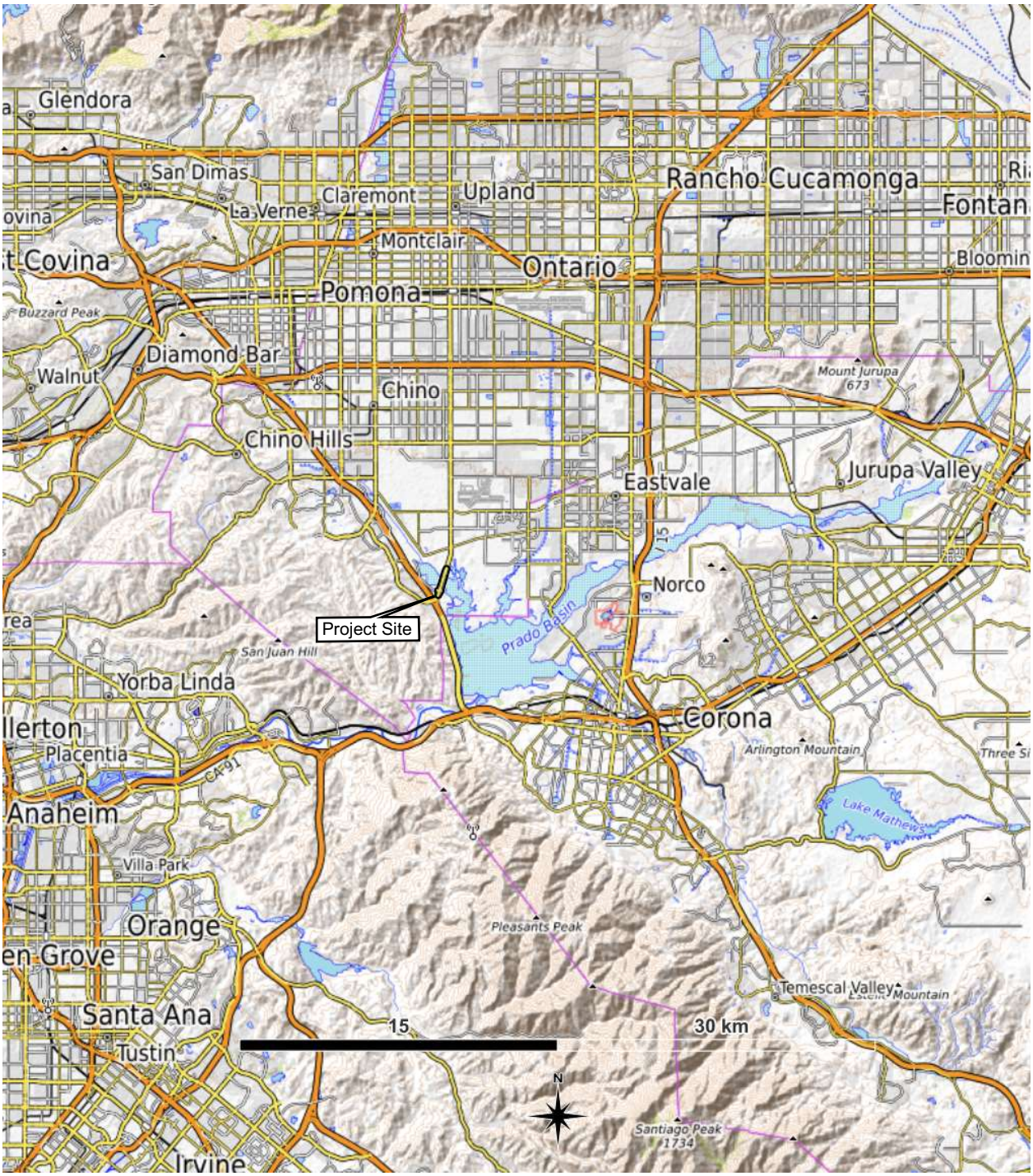
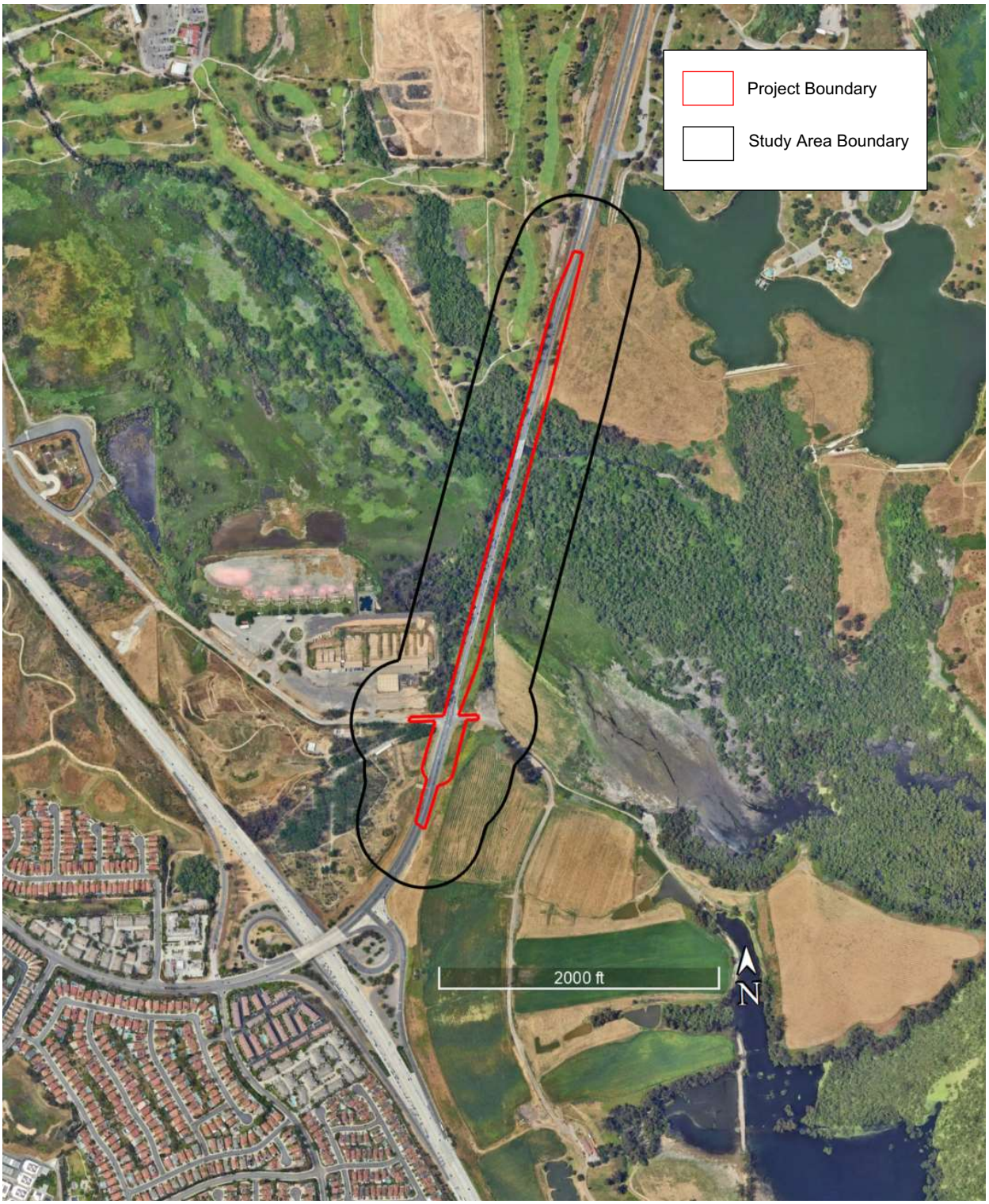


Figure 2. Study Area



Methods

2.1 Literature and Desktop Review

Prior to field surveys, Applied Ecology Solutions performed a records search for special-status wildlife, sensitive natural communities, critical habitat, and other sensitive resources potentially occurring in the project area. Sources included the *California Natural Diversity Database* (CNDDB) (CDFW, 2023), *USFWS Threatened and Endangered Species Active Critical Habitat Report* (USFWS, 2023), and U.S. Geological Survey (USGS) topographic maps (USGS, 2022). The records search was performed using a 10-mile radius around the study area in all eight cardinal directions.

2.2 Survey Methods

2.2.1 USGS Western Pond Turtle Visual Survey Protocol

Employing survey protocols established by the U.S. Geological Survey (USGS), biologists performed visual surveys to determine habitat suitability and pond turtle presence or absence. Habitat suitability for pond turtles was evaluated for presence of basking sites, aquatic refugia, streamside refugia, and upland nesting habitat (USGS 2006). During each survey, additional qualitative data collection included habitat characteristics such as substrate, vegetation communities, vegetative cover, native and non-native flora and fauna and habitat modification.

Visual surveys included active searches of aquatic habitat with and without binoculars for the presence of basking or swimming turtles as well as close examination of suitable basking areas on banks, instream emergent tree stumps and branches or other emergent or floating objects for the presence of slides or claw marks. Open pools were approached slowly and stealthily to avoid disrupting basking turtles and to detect their splash when entering the water. Visual surveys were also conducted concurrently with nocturnal surveys for fish during which biologists searched for swimming or submerged turtles. When a turtle was observed, survey biologists attempted to record a voucher photo and determined species, age class, sex, GPS coordinates and physical disposition (indicators of health, including activity and evidence of disease and/or physical injury). GPS coordinates were also recorded where evidence of turtle presence was observed (e.g., slides, claw marks, or flushed turtles) but a species determination could not be made. Surveyors tracked these locations and approached them with more caution during follow-up surveys to avoid disturbing turtles on approach and increase the likelihood of observation.

2.2.2 US Department of the Interior Aquatic Amphibians Protocol

Following standardized protocols developed by the National Park Service (NPS) and other agencies, biologists performed amphibian surveys throughout the proposed project area. In addition to amphibians, turtles and snakes were also recorded if encountered while conducting aquatic surveys. Survey techniques involved visual searches with and without binoculars (NPS, WRUC, NRTR, 1995).

Surveyors first performed diurnal surveys of the project site and aquatic habitat to identify areas most suitable for each life stage of the target species. Those areas deemed most suitable were noted and received additional attention during focused surveys.

Surveyors moved upstream, scanning up to 15 meters (m) upstream with binoculars, surveying banks, exposed rocks, and emergent vegetation. This method involved visual searches for vocalizing male toads or pairs in amplexus and walking in the creek and on adjacent banks visually searching for amphibians, eggs, larvae, juveniles and foraging adults. Surveyors also examined overhanging banks, holes within banks and under logs throughout the survey area. Observations were compared and tallied at the conclusion of surveys (NPS, WRCU, NRTR, 1995).

Visual searches necessitated slowly walking and visually examining banks, refugia and the creek bottom. Data collection included a voucher photo, species determination, GPS coordinates (for special status species), life stage and quantity of individuals observed.

2.2.3 CDFW Stream Bank Observation Fish Sampling Method

Applied Ecology Solutions biologists performed stream bank observations following CDFW protocols to determine the presence or absence of fish species potentially occurring in the study area (FRGP, 2010). All aquatic habitat within the study area was surveyed to determine habitat suitability and species composition. Due to water quality concerns associated with urban runoff, snorkel surveys were not performed. To satisfy underwater observations typically obtained from snorkel surveys, Applied Ecology Solutions performed nocturnal visual and underwater surveys with the use of a waterproof video camera and headlamps. Species determinations were attempted in the field but often required desktop verification from recorded footage. While numbers of species observed were recorded, they should not be considered a measurement of species abundance given the surveys could not cover 100% of potentially occupied habitat. Data collected included water quality (temperature, pH, salinity, turbidity, and dissolved oxygen [DO]), species determination (if feasible), voucher photo (video still image), size class, sex (if feasible) and approximate number of each species observed. Species determinations not made in the field were verified during desktop review of recorded underwater video footage.

Existing Conditions

3.1 Study Area

The project site consists of 20.5 acres within Euclid Avenue roadway right of way extending from 0.4 km (0.25-mi) to 1.6 km (1 mi) northeast of State Route 71. The study area includes a 150 m (500 ft) radius buffer around the project site and includes areas surrounding Euclid Avenue from approximately 220 m (720 ft) east of State Route 71 to approximately 1.74 km (1.09 mi) northeast. The entire study area encompasses approximately 113 acres, however, approximately 42 acres consists of undeveloped land considered potentially suitable habitat for the target species.

Chino Creek crosses the study area, draining from northwest to southeast. It is considered a large river, having a total length of 20.4 km (12.7 mi) and a watershed of 560 km^2 (218 mi^2) that includes flow from Mount Baldy and other portions of the San Gabriel Mountains. Major sections of Chino Creek are underground in stormwater drains and it receives urban runoff from several cities in the Pomona Valley and portions of San Bernardino County.

Although a high-gradient stream, in the study area Chino Creek is characterized by moderate slopes and moderately deep soils given it is within the northern portion of the Prado Flood Control Basin and subject to lentic flow typical of reservoir headwaters, in which the backup of flow results in very slow, nearly stagnant water with a more pond-like environment. Stream morphology is simple, consisting primarily of broad (over 30 m- (100 ft-) wide) and deep (up to 5 m [16 ft]) still-

water sections lacking the complexity typical of California streams that normally include riffles, rapids, runs, and plunge pools that would otherwise oxygenate water. Substrate varies from silt to cobble but is dominated by medium to coarse sand. Given the urban origin of much of the surface flow, there is an accumulation of trash, flotsam and emergent dead tree trunks and branches, and water quality is presumed to be poor.

Vegetation in the Chino Creek and Prado Basin portion of the study area generally consists of Goodding's willow - red willow riparian woodland and forest (*Salix gooddingii – Salix laevigata* Forest and Woodland Alliance) dominated by Gooding's willow and red willow trees with scattered Fremont cottonwood (*Populus fremontii ssp. fremontii)*, California sycamore (*Platanus racemosa*) and boxelder (*Acer negundo*) trees. Non-native trees are also common, including tree of heaven (*Alianthus altissima*), red gum (*Eucalyptus camaldulensis*), shamel ash (*Fraxinus uhdei*), and common fig (*Ficus carica*). Common shrubs and herbs in the study area include arroyo willow (*Salix lasiolepis*), mule fat (*Baccharis salicifolia*), cattail (*Typha domingensis*) and California bulrush (*Schoenoplectus californicus*). Non-native and invasive giant reed (*Arundo donax*), tree tobacco (*Nicotiana glauca*), and tamarisk (*Tamarix ramosissima*) are also common in the study area.

Uplands in the study area are dominated by ornamental plantings and non-native herbaceous vegetation communities, including upland mustards or star-thistle fields (*Brassica nigra – Centaurea* (*solstitialis, melitensis*) Herbaceous Semi-Natural Alliance, wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp) and poison hemlock or fennel patches (*Conium maculatum – Foeniculum vulgare* Herbaceous Semi-Natural Alliance). These vegetation communities provide little habitat value to native terrestrial species.

3.2 Records Search

The following section addresses special status biological fish and herpetofauna known to occur in the project region. These species have been afforded special status and/or recognition by federal and state resource agencies. In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitation of its population size, geographic range, and/or distribution resulting in most cases from habitat loss. A summary of special status aquatic wildlife and herpetofauna species known to occur in the project region, including information on the status, potential for occurrence, and definitions for the various status designations are presented in Table 1. Sources used to determine special status biological resources in the region are discussed in Section 2.1.

TABLE 1
SPECIAL STATUS AQUATIC WILDLIFE & HERPETOFAUNA POTENTIALLY OCCURRING WITHIN THE PROJECT REGION

Species	Status		Potential For Occurrence
	Federal	State	
Invertebrates			
Branchinecta sandiegonensis San Diego fairy shrimp	FE	-	Not expected. Lack of suitable vernal pool habitat. There are no records from the Prado Basin.
Fish			
Catostomus santaanae Santa Ana sucker	FT	SSC	Not expected. This species is known to occupy the Santa Ana River but requires fast-moving, well-oxygenated river sections with lithic diatoms as a food source. Stream conditions in Chino Creek are considered unsuitable and there are no known records.
Gila orcutti Arroyo chub	-	SSC	**Low.** This species is known to occupy the Santa Ana River and there are records from the Prado Basin. This species can tolerate lotic conditions for extended periods and marginally suitable habitat is present in the study area.
Oncorhynchus mykiss irideus pop 10 Southern California steelhead	-	SSC	Not expected. This species is anadromous and requires stream connectivity to the Pacific Ocean.
Amphibians			
Anaxyrus californicus Arroyo toad	FE	SSC	Not expected. This species requires streams in broad alluvial washes with slow-moving, shallow sections or side pools. The nearest record is from Blackstar Canyon in the Santa Ana Mountains approximately 10 miles southwest.
Taricha torosa Coast Range newt	-	SSC	**Low.** Marginally suitable is present. This species prefers clean, clear streams and ponds with low turbidity.
Spea hammondii Western spadefoot	PT	SSC	**Low.** Marginally suitable breeding habitat may be present in isolated backwater portions of the Prado Basin that do not have connectivity to the Chino Creek mainstem and lack predatory pressures. There are no records from the Prado Basin.
Reptiles			
Actinemys pallida Southwestern pond turtle	PT	SSC	**Moderate.** Suitable aquatic and upland habitat is present in the study area and there are records from the Santa Ana River where it flows into the Prado Basin.
Anniella stebbensi Southern California legless lizard	-	SSC	**Low.** Limited marginally suitable habitat is present and there are known records in the Prado Basin
Arizona elegans occidentalis California glossy snake	-	SSC	**Low**. Limited marginally suitable habitat is present and is isolated from occupied habitat in the foothills to the west of State Route 71.
Aspidoscelis hyperythrus Orange-throated whiptail	-	SSC	Not expected. This species occupies coastal scrub, mixed chaparral and foothill woodlands. No suitable habitat is present in the study area.
Aspidoscelis tigris stenjnegeri Coastal whiptail	-	SSC	Not expected. This species occupies coastal scrub and mixed chaparral with gravelly substrate. No suitable habitat is present in the study area.
Coleonyx variegatus abbottii San Diego banded gecko	-	SSC	Not expected. This species requires rocky coastal scrub and granite outcrops.

Species	Status		Potential For Occurrence
	Federal	State	
Crotalus ruber Red-diamond rattlesnake	-	SSC	Not expected. This species requires rocky areas in chaparral, woodland and arid scrub habitats.
Phrynosoma blainvilli Coast horned lizard	-	SSC	**Low**. Limited marginally suitable habitat is present in the study area and is isolated from occupied habitat in the foothills to the west of State Route 71.
Salvador hexalepis virgultea Coast patch-nosed snake	-	SSC	Not expected. This species requires dense, brushy chaparral habitat.
Thamnophis hammondii Two-striped gartersnake	-	SSC	**Low.** Marginally suitable habitat is present. This species prefers typical California stream habitat and instream pools.
Thamnophis sirtalis pop. 1 South coast gartersnake	-	SSC	**High.** Suitable habitat is present and there are records from the study area.

LEGEND

Federal (USFWS)

FE Endangered
FT Threatened
PT Proposed for listing as Threatened

State (CDFG)

SSC Species of Special Concern

Special-Status Aquatic Species

4.1 Species Descriptions

Fish

Arroyo Chub

Arroyo chub is a California Species of Special Concern. It is a small freshwater fish native to the watersheds of the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita Rivers as well as Malibu and San Juan Creeks. Arroyo chub has also been successfully introduced into the Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and other smaller coastal streams (Moyle 2002). The arroyo chub is now common at only three of its native locations: Santa Margarita and De Luz Creeks in San Diego County; Trabuco and San Juan Creeks in Orange County; and Malibu Creek in Los Angeles County (Swift et al. 1993).

The arroyo chub is a small fish that can reach a standard length of 14 centimeters (cm) (5.5 inches [in]), although the typical adult length varies between 7 and 12 cm (2.8 and 4.7 in) (Moyle 2002). Males are distinguished from females by their larger fins and, when breeding, by the prominent patch of tubercles on the upper surface of the pectoral fins (forelimbs). The arroyo chub has a chunky body, fairly large eyes, and a small mouth. Its body color is silver or grey to olive-green dorsally, white ventrally, and it usually has a dull grey lateral band (Moyle et al. 1995).

Arroyo chub are found in coastal freshwater streams and rivers with sustained flows and emergent vegetation. It prefers the slowest moving sections with depths greater than 40 cm (15.8 in) where the substrates consist primarily of sand or mud, but it can also be found in fast-moving streams with coarse substrates (Moyle 2002). This species is adapted to survive in widely fluctuating water temperatures (10°C to 25°C [50°F to 77°F]) and fluctuating dissolved oxygen levels common in coastal streams. Arroyo chub forms schools and feeds heavily on algae and other plants as well as small crustaceans and aquatic insect larvae (Moyle 2002).

Arroyo chub rarely live beyond four years and begin to reproduce at one year of age. They breed continuously from February through August, although most spawning occurs in June and July. The majority of spawning occurs in pools or in quiet edgewaters with temperatures of 14°C to 22°C (57°F to 71°F) (Moyle 2002). Eggs adhere to the substrate or plants and hatch in approximately four days. After hatching, the fry spend the next three to four months in calm water among vegetation or other flooded cover (Moyle 2002).

Arroyo chub are threatened by the introduction of non-native fish and show a decline in the watershed when non-native species become abundant. The introduction of largemouth bass (*Micropterus salmoides*) and green sunfish (*Lepomis cyanellus*) pose a significant threat and could be responsible for their extirpation from many areas (Moyle et al. 1995). Arroyo chub is also threatened by water diversions, urbanization of watersheds and pollution.

Amphibians

Coast Range Newt

The Coast Range newt is considered a Species of Special Concern by the California Department of Fish and Wildlife (CDFW 2024). It occurs along the coast and in coastal mountains from Mendocino County south to San Diego County. Degradation of aquatic and upland habitat as well

as migration routes has resulted in population declines throughout its range (Jennings & Hayes 1994).

The Coast Range newt is a stocky, medium-sized salamander with a light to dark brown dorsum and bright yellow to orange ventral surface. Adults do not exceed approximately 8 inches total length and are primarily terrestrial from June to November. This species lives in leaf litter, rotting logs, moist rock crevices, and animal burrows in chaparral, oak woodland, and grassland habitats below 1,280 m (4,200 ft) elevation (Riemer 1958).

This species typically breeds from December to May when adults will migrate to aquatic habitat, including ponds, reservoirs, and streams. Masses of 7 to 47 eggs are laid in water less than 1 foot deep and attached to emergent vegetation in slow moving water (Storer 1925). Diet consists of small invertebrates such as worms, snails, slugs, and insects along with amphibian eggs and larvae (Petranka 1998). Newt larvae are completely aquatic for several months metamorphosing in summer or fall as creeks and pools dry.

Western Spadefoot

The western spadefoot (*Spea hammondii*) is federally proposed for listing as a Threatened species and is considered a Species of Special Concern by the Department of Fish and Wildlife (CDFW 2024). Western spadefoot toads are restricted to California and northwestern Baja California, Mexico below 1,370 m (4,500 ft) elevation (Lannoo 2005). Adult toads forage and burrow in a variety of habitats in open areas with sandy or loamy soils including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas and alkali flats in foothills and mountains (Lannoo 2005).

The western spadefoot is a moderate-sized toad (snout to vent length generally not exceeding 2.5 inches) with loose skin, irregular dark markings, and tubercles tipped with orange or red. The overall dorsal coloration is dusky green, gray, or brown, with a white to gray and unmarked underside. The main distinguishing features are the presence of wedge-shaped, glossy-black “spades” on each hind foot, and vertical pupils. They are rarely seen, spending most of their life underground in earth-filled burrows up to three ft deep which are excavated with the spades.

Adults emerge from dry season refuges during late winter or spring rains, typically in February and March, and proceed to nearby breeding pools. Additional breeding may occur after March, particularly during years with late season or above average rainfall. Mating usually ends by mid-May. Little is known about the home range of spadefoot toads; however, Great Basin spadefoot (*Spea intermontana*) are estimated to travel up to 0.5 mile (2,640 ft) from seasonal burrows to breeding habitat. Other research suggests that core terrestrial habitat use ranges from 159 m (521 ft) to 290 m (951 ft) from the edge of aquatic habitats for most amphibians. Breeding habitat primarily consists of shallow, temporary rain pools that persist for a minimum of 30 days following egg-laying. The temporary nature of the breeding habitat ensures a lack of predators such as fish, American bullfrog (*Lithobates catesbeiana*), and red-swamp crayfish (*Procambarus clarkii*) that would otherwise reduce the likelihood of metamorphosis and recruitment.

Spadefoot males arrive at breeding pools first to establish breeding territories and to vocalize to attract females. The breeding call is hoarse and snore-like. Females attach fertilized eggs to submerged plant stems or other objects. Females lay 300-500 eggs in small clusters of 10 to 42 eggs per cluster. Eggs hatch within 3 to 4 days. Metamorphosis of tadpoles is dependent on the carrying capacity of the breeding pool, but typically occurs within 30 to 79 days. Tadpoles eat

plankton, algae, and dead aquatic larvae. Important larval predators include California tiger salamanders (*Ambystoma californiense*), garter snakes (*Thamnophis* spp.), great blue herons (*Ardea herodias*), and raccoons (*Procyon lotor*). Juveniles migrate from their natal pool a few days after metamorphosis, but little is known about how far they travel or how they survive the dry conditions typical in April through June when these movements take place.

In southern California, over 80% of habitat once known to be occupied by western spadefoot has been converted to uses incompatible with sustaining viable populations due to through direct impacts to breeding habitat and fragmentation of breeding and foraging/burrowing habitat by urban development. Loss of habitat and possibly mosquito abatement programs (through the release of mosquito fish in spadefoot breeding pools) have been implicated in severe population declines. In addition, non-native species such as bullfrog may also pose a threat to some populations.

Reptiles

Southern California legless lizard

The southern California legless lizard (*Anniella stebbinsi*) is a California Species of Special Concern. It is a small, secretive lizard that spends most of its life beneath the soil, under stones, logs, debris, or in leaf litter. It requires areas with loose sandy soil, moisture, warmth, and plant cover where it feeds on invertebrates in the soil. This species occurs in chaparral, pine-oak woodland, beach, and riparian vegetation types at elevations between sea level and approximately 5,900 feet above msl (Stebbins 2012). The southern California legless lizard occurs along the Coast, Transverse, and Peninsular ranges from Contra Costa County south to Baja California, Mexico (Stebbins 2012). It is a naturally rare species since it specializes in substrates with a high sand content, but it is also threatened by grazing, off-road vehicle activity, sand mining, beach erosion, excessive recreational use of coastal dunes, and the introduction of exotic plants (Jennings and Hayes 1994).

California Glossy Snake

The California glossy snake (*Arizona elegans occidentalis*) is considered a California Species of Special Concern. While the desert subspecies of the glossy snake (*A.e. eburnata & A.e. candida*) are common in California, the California glossy snake has become increasingly rare on the interior Coast Ranges from Mount Diablo in Contra Costa County south to Baja California (Thomson et al 2016). This species occupies chaparral, sagebrush, valley-foothill hardwood, pine-juniper and annual grassland habitats below 1,830 m (6,000 ft). It is primarily nocturnal, hiding in mammal burrows and rock outcrops during the day and sometimes burrowed into loose soil at the base of shrubs. It prefers open sandy areas with scattered brush where it will seek out by scent and feed primarily on lizards in their refugia (Zeiner et al 1990).

Coast Horned Lizard

Coast horned lizard (*Phrynosoma blainvillii*) is a California Species of Special Concern. It is a small, spiny, somewhat rounded lizard that occurs in scrubland, grassland, coniferous forests, and broadleaf woodland vegetation types (Stebbins 2012). It prefers open areas for basking and loose, friable soil for burrowing (Stebbins 2012). The coast horned lizard occurs throughout much of California, west of the desert and Cascade-Sierra highlands south to Baja California, Mexico (Stebbins 2012). However, many of the populations in lowland areas have been reduced or

eliminated due to urbanization and agricultural expansion (Stebbins 2012). Three factors have contributed to its decline: loss of habitat, overcollecting, and the introduction of exotic ants (Jennings and Hayes 1994).

Southwestern Pond Turtle

The southwestern pond turtle (*Actinemys pallida*) is currently being considered for listing as a Threatened Species by the USFWS (Federal Register 2023) and is considered a Species of Special Concern by the CDFW (2024). habitat destruction for urban and agricultural development has resulted in population declines throughout its range (Spinks et al. 2003).

The southwestern pond turtle is a relatively flat, dark turtle of moderate size, with a carapace (shell) length that rarely exceeds ten inches (Spinks et al. 2003). The carapace is usually brown in color with a series of darker spots, lines or dashes that radiate out from the center of each shield (Stebbins 2012). The southwestern pond turtle is found in ponds, small lakes with abundant vegetation, marshes, reservoirs, seasonal standing or slow-moving streams, canals and sloughs, and occasionally in brackish water (Germano 2001). Sufficient cover (e.g., vegetation, undercut banks) and basking sites are important components of suitable habitat (Spinks et al. 2003). Adults are often observed basking on logs or other objects protruding out of the water or floating in the warmer surface water.

This species breeds from April to May (Jennings and Hayes 1994), but the timing is highly variable depending on location and seasonal conditions. Females move from the water to adjacent upland habitats to lay eggs, usually sometime in late May to early July, although it could occur as early as April or as late as August (Ernst et al. 1994). Nest site selection favors unshaded slopes that may be at least in part south-facing, likely to ensure that substrate temperatures will be high enough to incubate the eggs (Rathbun et al. 2002). Hatchlings over-winter in the nest. Adult turtles in southern California may be active throughout the winter in warm years or seek out terrestrial refugia (i.e., shelter with appropriate temperature and moisture conditions) in adjacent upland areas during colder years (Jennings and Hayes 1994). Terrestrial refugia are typically covered with dense leaf litter produced by a thick overstory of woody vegetation, including dense riparian thickets of willows (*Salix* spp.) (Rathbun et al. 2002). Turtles may either choose sites where they can bask in direct sunlight or may bury themselves deep into leaf litter and duff (Rathbun et al. 2002).

Two-striped Gartersnake

The two-striped gartersnake (*Thamnophis hammondii*) is a California Department of Fish and Wildlife Species of Special Concern (CDFW 2023). It occurs throughout the south coast and peninsular ranges west of the San Joaquin Valley and deserts from the Salinas and Cantua creeks in Monterey and Fresno counties, respectively, south along the coast to southern California where it ranges east through the transverse ranges and south through the peninsular ranges to Baja California from sea level to approximately 2,450 m (8,040 ft) above mean sea level (msl) (Jennings and Hayes 1994).

The two-striped gartersnake is medium-sized for the genus growing to approximately 1 m (3.3 ft) long. Dorsal and ventral ground color varies from olive to brown or brownish gray with two later stripes on the 2nd and 3rd scale rows and four lateral rows of small dark spots between the stripes (Jennings and Hayes 1994). The lateral stripes and rows or dark spots may sometimes be absent,

particularly in melanistic individuals common in the northern portion of its range (Larson 1984). The ventral surface is dull yellow to orange-red or salmon with a whitish throat (Stebbins 2012).

This species is highly aquatic, foraging primarily in and along streams for fishes, amphibians and their eggs and larvae (Rathbun et al 1993). Courtship and mating normally occur soon after spring emergence. Young are born alive in the late summer, usually in secluded sites such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins (Cunningham 1959, Rossman et al. 1996).

South Coast Gartersnake

The south coast gartersnake (*Thamnophis sirtalis pop. 10*) is a California Department of Fish and Wildlife Species of Special Concern (CDFW 2024). Although *T. sirtalis* is one of the most widespread and well-studied snakes in North America, little is known about the south coast population. It was historically known from the Santa Clara River Valley in Ventura County south to San Pasqual in San Diego County below 832 m (2,730 ft) elevation but it appears to have lost 75% of occupied habitat to urbanization. It is suspected that all but three localities have been extirpated and Prado Basin is home to one of them (Thomson et al 2016).

The south coast gartersnake is a medium-sized snake though much larger than two-striped garter snake, growing up to nearly 1.3 m (4.2 ft). Color pattern varies widely but it typically has a dark dorsum with lighter dorsal and lateral stripes and a red or orange coloration on the head and between the stripes (Stebbins 2012).

This species is strongly associated with ponds, wetlands and deep, slow-moving perennial rivers with established riparian vegetation, as well as adjacent uplands. It is a generalized predator that feeds primarily on frogs, fish, leeches and occasionally mice.

Results

5.1 Survey Data

A total of eight surveys were performed between April 15 and October 25, 2024 by Senior Biologist Sam Stewart with assistance from Brendan Kyle on October 7. All surveys were divided into focused diurnal surveys for western pond turtle, garter snakes, and terrestrial herps, and focused nocturnal surveys for fish and amphibians, though all target species were sought regardless of time of day.

Diurnal surveys were conducted between 9:00 AM and dusk and focused on the detection of turtles and snakes by visual identification and scanning the banks for juvenile to adult life stages that may be basking or actively searching for food. Surveyors swept all aquatic habitat within Chino Creek twice per diurnal survey, once from the banks and once from a kayak. Binoculars (8-10x42) were used to visually identify species seen from a distance to improve the likelihood of positive identification before the species could detect the surveyor and seek refuge. Biologists carried telephoto cameras and an underwater video camera attached to the end of an extending pole to attempt a voucher photograph of species basking, swimming or attempting to escape into the water. Biologists also searched for evidence of presence, including snake tracks and turtle claw marks or slides (depressions on banks) indicative of a frequently used basking site with a worn slide used by turtles to flush into the water for predator avoidance. Areas with such evidence

were visited repeatedly to improve the likelihood of direct observation. Upland areas were walked in search of snakes or lizards and the bases of shrubs and trees were raked to detect glossy snake or legless lizard.

During nocturnal surveys, biologists wore headlamps and/or carried flashlights and scanned pools for fish and amphibians, amphibian eggs, larvae, juveniles, and adults in potentially suitable in-water breeding territories, as well as foraging terrestrial amphibians and reptiles in adjacent upland habitats. Any fish not readily identified by sight was photographed using the underwater video camera for review in the field and to extract video still images during desktop review.

Special status species detected during surveys were documented in field notes and the following data collected whenever possible: (1) time of initial observation; (2) a description of the microhabitat occupied at the moment of observation; (3) life stage and sex of the individual; (4) a general description of the disposition of the species observed, including observations pertaining to the health and well-being of the individual; (5) geographic positioning system (GPS) coordinates; (6) voucher photographs; and (7) any behaviors or other observations of note.

Surveys were conducted during appropriate environmental conditions conducive to the activity patterns and detectability of the target species. Generally, these conditions consist of air temperatures more than 50 degrees Fahrenheit with low winds (less than 15 miles per hour) avoiding nights with a full moon. Survey dates, times, and weather data are shown in Table 2 and water quality measures are provided in Table 3.

TABLE 2
SUMMARY OF SPECIAL STATUS AQUATIC WILDLIFE SPECIES SURVEY WEATHER CONDITIONS

Survey	Surveying Biologists	Survey Date	Wind (miles/hour)	Air Temperature (°F)	Relative Humidity (%)
1	S. Stewart	6/19/2024	2-16	61-79	54-77
2	S. Stewart	7/17/2024	0-9	54-64	28-57
3	S. Stewart	8/8/2024	2-12	69-88	42-83
4	S. Stewart	9/4/2024	2-7	61-69	49-81
5	S. Stewart	9/19/2024	4-14	77-99	35-77
6	S. Stewart, B. Kyle	10/7/2024	3-13	70-93	43-85
7	S. Stewart	10/25/2024	2-14	57-80	32-80

TABLE 3
SUMMARY OF SPECIAL STATUS AQUATIC WILDLIFE SPECIES SURVEY
WATER QUALITY MEASUREMENTS

Survey Date	Water Temperature	Turbidity (NTU)	Ph	Dissolved Oxygen (mg/L)
6/19/2024	74.3	8.64	7.41	6.43
8/8/2024	76.1	7.03	7.34	5.58
8/15/2024	74.9	8.01	6.98	5.50
9/4//2024	75.7	9.32	7.11	5.65
9/19/2024	76.5	10.56	7.32	5.66
10/7/2024	77.1	12.11	7.40	5.71
10/30/2024	75.1	18.64	7.28	5.38

5.2 Survey Results

Fish

No special status or native fishes were observed during surveys. Nine species of non-native and invasive fishes were observed in the study area. Listed in order of abundance observed from most to least they include western mosquitofish (*Gambusia affinis*), green sunfish (*Lepomis cyanellus*), sailfin molly (*Poecilia latipinna*), largemouth bass (*Micropterus salmoides*), spotted bass (*Micropterus punctatus*), bluegill (*Lepomis macrochirus*), common carp (*Cyprinus carpio*), inland silverside (*Medinia beryllina*) and yellow bullhead (*Ameirus natalis*).

Amphibians

No special status amphibians were observed during surveys. Two species of native amphibians, California toad (*Anaxyrus boreas halophilus*) and Baja California treefrog (*Pseudacris hypochondriaca*), were observed during surveys. However, the most frequently encountered amphibian during surveys was the invasive American bullfrog (*Lithobates catesbeiana*).

Reptiles

No special status reptiles were observed during surveys. Three species of native reptiles, Great Basin spiny lizard (*Sceloporus occidentalis longipes*), side-blotched lizard (*Uta stansburiana*) and California alligator lizard (*Elgaria multicarinata multicarinata*) were observed during surveys. Two species of invasive turtles, red-eared slider (*Trachemys scripta elegans*) and river cooter (*Pseudemys concinna*), were observed during surveys. A population of approximately 18 turtles was observed in the study area.

Conclusion

6.1 Discussion

Based on the survey findings the study area appears to have been overrun by non-native, invasive aquatic species. Many of the species observed are the same that have been implicated in the decline of the survey target species. Largemouth bass and green sunfish are considered a likely responsible for the extirpation of arroyo chub from many areas (Moyle et al. 1995). Red swamp crayfish are known to eat the eggs of fish, spadefoot toad and Coast Range newt (Katz 1996). Red-eared sliders are known to compete aggressively with native turtles and have displaced them from portions of their native range (Pendlebury 2006). Finally, American bullfrogs are known to be voracious predators that will consume any prey that will fit in their mouths, including gartersnakes (Stewart & Quon 2016). Given the dominance of the study area by non-native species, it is likely that special status aquatic species and herpetofauna have been extirpated from the study area or their numbers reduced to the extent that they are no longer detectable.

6.2 Recommendations

While focused surveys did not detect any of the target special status species, a negative survey result does not mean that they are absent beyond the study area or unable to move into the study area prior to project implementation. The following measures are recommended: 1) exclusionary fencing with one-way funnels should be installed to prevent native species from entering the work areas while allowing them to leave; 2) a monitor should be present prior to and during construction to perform a preconstruction sweep and to relocate any native species encountered during initial ground disturbance to predetermined release locations beyond the exclusion fencing; and 3) monitors should rake soils and duff at the base of trees along the edge of the roadway right-of-way in advance of grading activities and monitor during grading to relocate legless lizards potentially exposed by soil disturbance to areas beyond the exclusion fence. It is also recommended that a Hazard Analysis Critical Control Plan be prepared to prevent the spread of invasive species.

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Appendix A: Species Compendium

The following list includes wildlife observed in the project site at the time of the field surveys conducted on by Applied Ecology Solutions Environmental. This list includes the wildlife species common name, scientific name, and listing status (if applicable).

Scientific Name	Common Name	Status
Invertebrates		
Corbicula fluminea	Asian clam	Invasive
Procambarus clarkii	Red-swamp crayfish	Invasive
Fish		
Ameirus natalis	Yellow bullhead	Invasive
Gambusia affinis	Western mosquitofish	Invasive
Poecilia latipinna	Sailfin molly	Invasive
Medinia beryllina	Inland silverside	Invasive
Micropterus punctulatus	Spotted bass	Invasive
Micropterus salmoides	Largemouth bass	Invasive
Lepomis macrochirus	Bluegill	Invasive
Lepomis cyanellus	Green sunfish	Invasive
Cyprinus carpio	Common carp	Invasive
Amphibians		
Anaxyrus boreas halophilus	California toad	Native
Lithobates catesbeianus	American bullfrog	Invasive
Pseudacris hypochondriaca	Baja California treefrog	Native
Reptiles		
Trachemys scripta elegans	Red-eared slider	Invasive
Pseudemys concinna	River cooter	Invasive
Sceloporus occidentalis longipes	Great Basin fence lizard	Native
Elgaria multicarinata multicarinata	California alligator lizard	Native
Birds		
Ardea alba	Great egret	Native
Butorides virescens	Green Heron	Native
Nycticorax nycticorax	Black-crowned night heron	Native
Anas platyrhynchos	Mallard	Native
Aix sponsa	Wood duck	
Cathartes aura	Turkey vulture	Native
Accipiter cooperii	Cooper's hawk	Native
Buteo lineatus	Red-shouldered hawk	Native
Buteo jamaicensis	Red-tailed hawk	Native
Charadrius vociferus	Killdeer	Native
Callipepla californica	California quail	Native
Zenaida macroura	Mourning dove	Native
Streptopelia decaocto	Eurasian collared dove	Invasive
Tyto alba	Barn Owl	Native
Chordeiles actuipennis	Lesser nighthawk	Native
Aeronautes saxatalis	White-throated swift	Native
Calypte anna	Anna's hummingbird	Native
Ceryle alcyon	Belted kingfisher	Native
Picoides pubescens	Downy woodpecker	Native
Picoides nuttallii	Nuttall's woodpecker	Native
Colaptes auratus	Northern flicker	Native
Contopus sordidulus	Western wood-pewee	Native
Empidonax difficilis	Western flycatcher	Native
Sayornis nigricans	Black phoebe	Native

Sayornis saya	Say's phoebe	Native
Myiarchus cinerascens	Ash-throated flycatcher	Native
Tyrannus vociferans	Cassin's kingbird	Native
Vireo gilvus	Warbling vireo	Native
Vireo bellii pusillus	least Bell's vireo	Federal & State Endangered Species
Vireo huttoni	Hutton's vireo	Native
Aphelocoma californica	California scrub jay	Native
Corvus corax	Common Raven	Native
Stelgidopteryx serripennis	Northern Rough-winged swallow	Native
Tachycineta thalassina	Violet-green Swallow	Native
Petrochelidon pyrrhonota	Cliff swallow	Native
Tachycineta bicolor	Tree swallow	Native
Psaltriparus minimus	Bushtit	Native
Thryomanes bewickii	Bewick's wren	Native
Troglodytes aedon	House wren	Native
Turdus migratorius	American robin	Native
Mimus polyglottos	Northern mockingbird	Native
Sturnus vulgaris	European Starling	Invasive
Vermivora celata	Orange-crowned warbler	Native
Setophaga petechia	Yellow warbler	Species of Special Concern
Setophaga coronata	Yellow-rumped warbler	Native
Cardellina pusilla	Wilson's warbler	Native
Geothlypis trichas	Common Yellowthroat	Native
Piranga ludoviciana	Western tanager	Native
Pheucticus melanocephalus	Black-headed grosbeak	Native
Passerina amoena	Lazuli Bunting	Native
Pipilo maculatus	Spotted towhee	Native
Melozone crissalis	California towhee	Native
Zonotrichia leucophrys	White-crowned sparrow	Native
Melospiza melodia	Song sparrow	Native
Molothrus ater	Brown-headed cowbird	Invasive
Agelaius phoeniceus	Red-winged blackbird	Native
Euphagus cyanocephalus	Brewer's blackbird	Native
Icterus bullockii	Bullock's oriole	Native
Haemorhous mexicanus	House finch	Native
Spinus psaltria	Lesser goldfinch	Native
Spinus tristis	American goldfinch	Native
Passer domesticus	House sparrow	Invasive
Mammals		
Canis latrans	Coyote	Native
Procyon lotor	Common racoon	Non-native
Otospermophilus beecheyi	California ground squirrel	Native
Sus scrofa	Wild boar	Invasive

Appendix B: Species Voucher Photographs

Photograph 1.



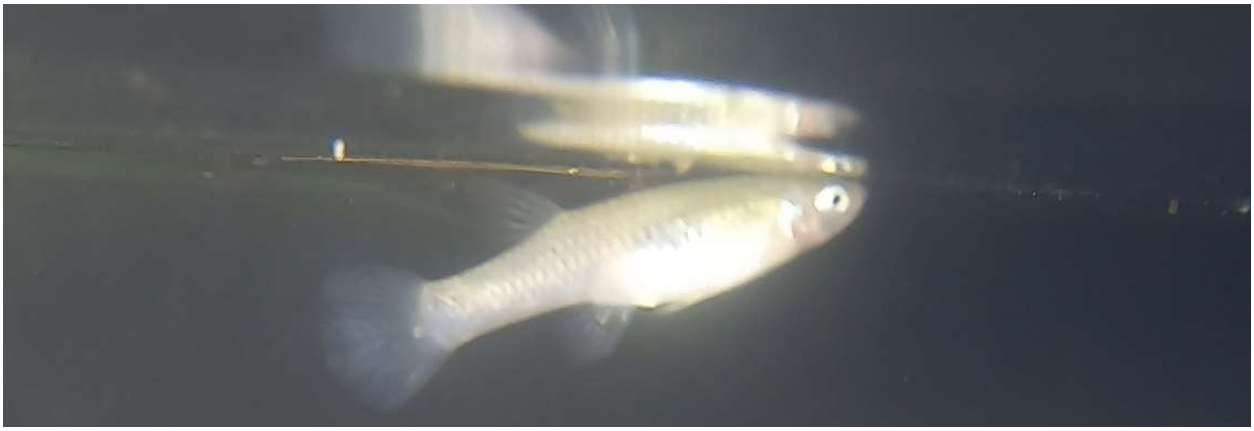
Red swamp crayfish (*Procambarus clarkii*)

Photograph 2.



Yellow bullhead (*Ameirus natalis*)

Photograph 3.



Western mosquitofish (*Gambusia affinis*)

Photograph 4.



Sailfin molly (*Poecilia latipinna*)

Photograph 5.



Inland silverside (*Medinia berylinna*)

Photograph 6.



Spotted bass (*Micropterus punctulatus*)

Photograph 7



Largemouth bass (*Micropterus salmoides*)

Photograph 8



Bluegill (*Lepomis macrochirus*)

Photograph 9



Green sunfish (*Lepomis cyanellus*)

Photograph 10



Common carp (*Cyprinus carpio*)

Photograph 11



American bullfrog (*Lithobates catesbeiana*)

Photograph 12



River cooter (*Pseudemys concinna*)

Photograph 13



Red-eared slider (*Trachemys scripta*)

Euclid Avenue Bridge Project

City of Chino, San Bernardino County, California

Burrowing Owl Focused Survey Report

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August 2025

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1.0 Executive Summary

This report has been prepared to present the results of a focused burrowing owl survey for the Euclid Avenue Bridge Project (Project), conducted by Ruth Villalobos and Associates Inc. The purpose of the report is to convey species specific findings of burrowing owl (*Athene cunicularia*) absence/presence within the Project area and immediate vicinity, as well as propose recommendations for species avoidance and mitigation. Focused burrowing owl surveys were conducted on April 9th, 2025; April 24th, 2025; May 20th, 2025; and June 18th, 2025. No burrowing owl individuals or signs of burrowing owl presence were observed, within the focused survey's biological study area, during any of the focused surveys.

2.0 Project Location

The proposed Project site is generally located along Euclid Avenue between Pine Avenue and State Route 71 (SR71) within the City of Chino, San Bernardino County, California. The site is also located within Section 6, Township 3 South, Range 7 West of the Public Land Survey System. Refer to Figure 1 – Regional Map and Figure 2 – Site Vicinity Map. The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/SR71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82'). The Project will be conducted entirely within the public right-of-way. This segment of Euclid Avenue is a major north-south route through the city serving as an essential route for transport of goods and for connections to various parts of the Project site region. Euclid Avenue connects the cities of Chino Hills, Ontario, and other adjacent cities to Orange and Los Angeles counties via access to SR71, State Route 60, and State Route 91.

This portion of Euclid Avenue is located within the Prado Basin and crosses Chino Creek. The Project site is located within the northern portion of the Prado Flood Control Basin in San Bernardino County. The Project site is located entirely below the United States Army Corps of Engineers (USACE) designated 566-foot above mean sea level (AMSL) National Geodetic Vertical Datum (NGVD) 29 inundation elevation for Prado Dam. All land below this elevation is considered subject to flooding from normal operations of the Dam. In addition, the Project site overlaps the USACE and Orange County Water District Prado Basin Ecosystem Restoration and Water Conservation Integrated Feasibility Report footprint for the Chino Creek Restoration activities and overlaps with a Congressionally authorized restoration project including a native planting area.

3.0 Project Description

The Project site is approximately 20.50 acres in area. Project development would include elevating Euclid Avenue above the Prado Basin 50-year inundation pool elevation (543 feet above mean sea level). The Feasibility Study Report identified potential wetland and non-wetland waters of the United States along Euclid Avenue. A long bridge structure is desirable because a pile-supported bridge will reduce permanent biological impacts and in turn is anticipated to expedite USACE and regulatory agency permitting processes. The Project would include construction of a new viaduct structure (i.e. "Euclid Avenue Viaduct") crossing above Pomona Rincon Road and over Chino Creek within the Prado Basin. Thereby, Project development would protect Euclid Avenue from flood waters associated with extreme rain events and allow the new roadway to remain open to traffic during storm events. Traffic circulation would be facilitated further by widening the new roadway to four lanes to match existing roadway capacity and by adding bicycle and pedestrian lanes. In addition, embankments supported by retaining walls will be constructed outside the limits of the Euclid Avenue Viaduct.

Project development would require an estimated 20,000 cubic yards of cut and 96,000 cubic yards of fill material. Cut material will not be suitable to use as fill. Therefore, fill material will be transported along existing roadways from areas outside the Project site. It is assumed the USACE will require the 76,000 cubic yards of imported fill material to be offset with excavation/borrow elsewhere within the Prado Basin although the borrow location has not been determined.

The sensitive water and biological resources in the project area were taken into consideration during the Project's development and design with impacts to them minimized to the greatest extent feasible. Retaining walls and imported fill soils will be constructed outside the jurisdictional limits. Fill material is anticipated to be secured elsewhere in the Prado Basin, potentially within USACE Federal lands and/or easements.

Prior to project development, potholing and geotechnical boring activities will be necessary to aid the final design plan. Potholing is required to verify the presence and location of underground utilities. A total of 26 pothole locations are proposed within the Euclid Avenue Bridge Project construction footprint. Each pothole would have an average diameter of 12 inches, depth of 5 feet (not to exceed depth of 10 feet), and 4 cubic yards of material removed and would be backfilled with sand. Equipment used would include an air-vac truck, a heavy-duty pick-up truck, and two traffic control trucks. All potholes are in the roadway or immediately adjacent to the roadway.

A total of 27 geotechnical borings are proposed, each with an average diameter of 10 inches with varying depths from 10 feet up to maximum of 100 feet. All proposed geotech boring locations are proposed within the Euclid Avenue Bridge Project construction footprint. Boring methods would include either hollow-stem auger borings or rotary-wash borings. Equipment used would include a drill rig, support truck, pick-up truck, and traffic control trucks.

Project development will occur in six phases that will include the following activities: clearing and grubbing; grading; foundation construction; substructure construction; superstructure construction; retaining wall construction; and roadway construction. These development activities will occur over approximately 18-24 months (commencing in March 2027) and be conducted Monday-Friday between 7:00 a.m. and 5:30 p.m. although the City of Chino Municipal Code allows such activity to extend to 8:00 p.m. Night and weekend work may be required throughout construction (to tie back into the existing portions of Euclid Avenue at the ends of the Project improvements, for example), but would have short durations.

The following describes anticipated project phases, including estimated construction equipment and daily number of workers on site:

- Phase 1 (Clearing and Grubbing): This development phase will consist of removing existing vegetation within the limits of the Project, using four Cat 924K front end loaders (or similar equipment), a 15-ton crane, and six 25 cubic yard dump trucks. It is anticipated 20 workers (daily) would be required to accomplish these activities. A significant amount of vegetation will need to be removed to accommodate Project improvements.
- Phase 2 (Grading): Grading will prepare the Project site for construction activities. Two Cat D9 dozers (or similar), one grader, and a water truck operated by 10 workers will accomplish this phase.
- Phase 3 (Foundation Construction): It is anticipated 12 workers will operate at least one Bauer BG40 drill rig (or similar device), two 70-ton cranes, one hydraulic casing oscillator, one concrete pump, one skid steer, one forklift, one manlift, as many as five slurry tanks, one generator, and one water truck to accomplish this phase.
- Phase 4 (Substructure Construction): Approximately 25 workers will complete this phase using two

160-ton cranes, four manlifts, two forklifts, and one water truck.

- Phase 5 (Superstructure Construction): Approximately 35 workers will use one 330-ton crane, four manlifts, two forklifts, and one water truck to complete this phase.
- Phase 6 (Approach Embankment Construction): Approximately 25 workers will use one roller compactor, one Cat 924K front end loader (or similar), one grader, six 25 cubic yard dump trucks, two forklifts, and one water truck to complete this phase.

Multiple staging areas will be required during construction, including one such area at the north end of the Project site (to be available throughout the duration of the Project) immediately south of the entrance to Prado Regional Park. A second staging area is anticipated at the south end of the Project site that will be available until the Pomona Rincon Road ramps are constructed. All ingress and egress for Project construction vehicles will be via Euclid Avenue and Pomona Rincon Road and additional ingress/egress from Pomona Rincon Road and Euclid Avenue will be available for the routine maintenance of the viaduct superstructure.

Utilities are present within the Project site and will require protection-in-place or relocation as part of Project development. Southern California Edison has overhead and underground distribution lines, some of which will require relocation. Verizon has several buried and overhead aerial communication lines near the Pomona Rincon Road intersection. There also is a Santa Ana Watershed Project Authority Brine Line, 36-42 inches in diameter, located approximately 33 feet east and parallel to the Euclid Avenue centerline. This brine line is anticipated to be protected in place.

The on-site vegetation will be allowed to grow back naturally after Project development. Required irrigation for any potential re-planted vegetation would be temporary and occur via water trucks using recycled water. Water trucks also will be used to ensure compliance with Section 10-5 Dust Control of the Caltrans Standard Specifications requirements, which may consist of applying a dust palliative, temporary soil stabilization, and other mitigation.

4.0 Species Background

The western burrowing owl is a grassland bird of prey species found throughout North America. The species is associated with open habitats with low vegetation and bare ground including dry grasslands, agricultural and range lands, desert habitats, lowland scrub, and steppe environments with gently sloping terrain. Burrowing owls are crepuscular hunting at dawn and dusk. Although, the species is most active at these times, they are often observed perched on or near their burrows throughout the day. The species primarily feed on insects, small reptiles, and small mammals within the habitat surrounding their burrows. The presence of ground squirrels and other small fossorial mammals provide suitable burrowing habitat for the species and serve as an indicator for potential burrowing owl presence in an area. Burrowing owls are known to use small fossorial mammal burrows for night-time roosts and nesting. The species is also known to occupy man-made cavities as roosting and nesting habitat such as buried pipe, debris piles, and dry culverts. The nesting season occurs between February 1 and August 31. During the non-breeding season, burrowing owls may migrate south but generally they remain in the breeding area.

Burrowing owls were once abundant throughout southern California and have recently seen a rapid decline in population. The rapid population decline of the species is primarily due to human development and rodent eradication in and near farmlands. The species is further threatened by further urban development, habitat degradation/fragmentation, ground squirrel eradication, and human disturbance. The degradation of natural burrowing owl habitat has caused some burrowing owls to nest in habitats such as airports/airfields, golf courses, vacant lots, industrial parks, and other open areas. Historically the

City of Chino has been inhabited by burrowing owls although their numbers have been reduced to only a few known populations. Several sightings of BUOW have been observed in the last few years documented within 5 miles of the Project site. Refer to Figure 5—Burrowing Owl Historical Occurrences Map.

Burrowing owl is currently under review by the California Fish and Game Commission for listing as either threatened or endangered species under the California Endangered Species Act (CESA). As a candidate species burrowing owl is fully protected under CESA throughout the species' candidacy period. Burrowing owl has not been listed at the Federal level by United States Fish and Wildlife Service (USFWS).

5.0 Methodology

Desktop Review

Prior to the focused survey RVA biologists conducted a thorough preliminary desktop analysis and literature review of the Project area and immediate vicinity, to determine the potential for burrowing owl to occur. A query of the California Natural Diversity Database returned numerous burrowing owl occurrences, observed and documented within the vicinity of the Project area. A total of Twenty-five occurrences of burrowing owl occur within the *Prado Dam* and *Corona North* 7.5-minute quadrangles. Seventeen (17) of the twenty-five (25) occurrences are within a three-mile radius of the Project area. and are located approximately 3 miles to the northwest (1988), 1.3 miles to the northwest (2007), 2.6 miles to the north (2006), 1 mile to the north (2016), 0.5 of a mile to the north (2006), 1.5 miles to the northeast (2006), 1.5 miles to the northeast (2006), 3 miles to the northeast (2006), 1 mile to the east (2006), 1.3 miles to the east (2006), 1.6 miles to the east (2006), 2.2 miles to the east (2006), 2.3 miles to the east (2006), 2.5 miles to the east (2007), 2.8 miles to the east (2007), 3 miles to the east (2006), and 3.3 miles to the southeast (1986) of the Project area. As such the species has a moderate potential to occur on or within the immediate vicinity of the Project area.

The burrowing owl focused survey was conducted according to California Department of Fish and Wildlife (CDFW) approved protocols developed by the California Burrowing Owl Consortium (1993). The *Burrowing Owl Survey and Mitigation Guidelines* protocols outline, a habitat assessment to identify the presence of potential burrowing owl habitat on site, followed by four (4) focused burrow surveys to determine presence/absence.

Habitat Assessment

The study area for the burrowing owl focused surveys consisted of the entirety of the Project area (20.50-acre) with the addition of a 500-foot survey buffer. The burrowing owl habitat assessment was performed within the study area to determine if the area supports burrowing owl individuals or habitat suitable to support the species. The habitat assessment consisted of a pedestrian field survey, of the study area, documenting areas of suitable habitat. Survey transects through the study area were generally oriented north to south and were conducted at a maximum of approximately five-foot intervals to ensure one-hundred percent visual coverage of all areas. Refer to Figure 3 – BUOW Survey Area and Buffer. All signs of the species and potential roosting/nesting habitat were documented by photograph and recording of a geolocation point. The habitat assessment specifically focused on roosting/nesting habitat such as small mammal burrows, rocks piles, drainage pipes, and other similar structures. Suitable roosting/nesting habitat consisted of burrows with at least a four-inch opening and sufficient depth to provide the species with adequate cover. Portions of the study area which could not be accessed to avoid trespassing or were inaccessible were visually inspected with binoculars. Refer to Figure 3 – Burrowing Owl Survey Area and Buffer.

The following metrics were used to determine the suitability of potential burrowing owl habitat within the study area. Highly suitable habitat consisted of potential burrowing locations within open sloped areas of low-lying vegetation. Moderately suitable habitat consisted of potential burrowing locations within

fragmented or overgrown habitat. Heavily disturbed habitat consisted of potential burrowing locations within less ideal habitat, such as dense vegetation, anthropogenic disturbance, or presence of predators (raptor species such as red-tailed hawks).

Focused Surveys

During the four focused burrowing owl surveys, areas with potentially suitable burrowing owl nesting/roosting habitat were thoroughly examined for signs of species presence. Signs of burrowing owl are occupying a burrow include cast pellets, prey remains, molted feathers, eggshell fragments, and/or signs of whitewash, all found around or within the entrance of a burrow site. All previously identified potentially suitable burrows identified during the habitat assessment were investigated, documented, and photographed to identify potential use by the species.

The focused burrowing owl surveys were conducted within the burrowing owl nesting season, from February 1st through August 31st. Surveys were conducted one hour before to two hours after sunrise, during weather conducive to observing owls outside their burrows. The focused surveys were not conducted during heavy rain events or the subsequent five days after. Surveys additionally avoided adverse weather conditions including high winds more than 20 miles per hour, dense fog, or temperatures over 90 degrees Fahrenheit (°F).

6.0 Results

Existing Conditions

The study area consists of multitude of vegetation and land use types, those suitable to support burrowing owl include agricultural land, non-native grassland, and ruderal disturbed lands. These habitat types are generally located in the northern and southern portions of the Project area, to the east and west of the Euclid Avenue roadway. These areas were inhabited by well-established colonies of ground squirrels with numerous burrow complexes. These habitats generally consisted of moderately suitable to heavily disturbed burrowing owl habitat.

Habitat Assessment

The Project area and surrounding study area buffer supports limited highly suitable habitat able to support both the nesting and foraging needs of burrowing owls. The suitability, for burrowing owl, is generally moderate to heavily disturbed. The highly suitable nesting/roosting habitat present onsite is fragmented in small areas throughout the study area. Overall, the study area is impacted by a multitude of anthropogenic disturbance from Euclid Avenue, Prado Regional Park, the golf course, the shooting park, and the dog park.

During the habitat assessment 25.95 acres of suitable burrowing owl habitat were documented to occur within the study area. Within the suitable habitat a total of 83 burrows, potentially suitable for burrowing owl, were documented to occur. Refer to Figure 4 – Potential Burrowing Owl Locations Map. No individuals of burrowing owl were observed to be occupying the study area at the time of the habitat assessment. All the burrows observed within the study area were actively being occupied by California ground squirrels or were in various stages of disuse and deterioration.

Focused Survey Results

Four focused burrowing owl surveys were conducted after the habitat assessment and within the species' nesting season to further determine absence/presence of the species from the study area. Potentially suitable burrows (i.e., at least four inches in diameter) were investigated and scrutinized for signs of species presence. However, no molted feathers, cast pellets, prey remains, eggshell fragments, and/or excrement indicative of burrowing owl presence were found at or near any burrow entrance. No individuals of burrowing owl were observed to be occupying the study area at the time of the habitat

assessment. All the burrows observed within the study area were actively being occupied by California ground squirrels or were in various stages of disuse and deterioration. Table 1 – *Survey Dates, Times, and Weather Conditions,* below outlines the conditions and results of the Burrowing owl surveys.

Table 1 – Survey Dates, Times, and Weather Conditions

Date	Time	Weather	Wind Speed (mph)	Surveyors	Results
04/09/2025 Habitat Assessment	7:15am-11:50am	Sunny/Clear, 58-79°F	0-1 mph	Z. Jenson, K. Cook, I. Garcia	Burrowing owl not observed.
04/25/2025 Focused Survey I	6:00am-10:00am	Cloudy, 55-59°F	2-3 mph	Z. Jenson, K. Cook	Burrowing owl not observed.
05/20/2025 Focused Survey II	6:45am-10:15am	Sunny/Clear, 55-78°F	1-2 mph	Z. Jenson, K. Cook	Burrowing owl not observed.
06/18/2025 Focused Survey III	6:20am-7:45am	Sunny/Clear, 67-79°F	1-3 mph	Z. Jenson, K. Cook	Burrowing owl not observed.
07/15/2025 Focused Survey IV	6:50am-8:35am	Sunny/Clear, 65-67°F	1-3 mph	Z. Jenson, K. Cook	Burrowing owl not observed.

7.0 Conclusions and Recommendations

Based on the results of the habitat assessment, suitable habitat for burrowing owl is present within the Project area and immediate vicinity. Although there is suitable habitat for the species within the study area the focused surveys provided evidence that the species is absent at the time of the study. Due to these results the Project development as proposed would not directly result in take or impacts to burrowing owl. However, due to the presence of suitable habitat within the Project area the species could potentially occupy said areas. For these reasons it is recommended that preconstruction burrowing owl surveys should be performed prior to Project related ground disturbance. The mitigation measure below, when instituted, would ensure that Project related impacts to burrowing owl would be would be reduced to a less than significant level.

Pre-Construction Burrowing Owl Surveys:
Prior to commencement of Project development (site-clearing and grading) activities, the City of Chino shall employ a qualified biologist who shall conduct a Pre-Construction "Take" Avoidance Burrowing Owl Survey within 14 days prior to Project site disturbance. If burrowing owl are confirmed absent during the Avoidance Survey, ground-disturbing Activities shall be allowed to commence, and no further Mitigation will be required.

If burrowing own are detected during the "Take" Avoidance Survey, the City of Chino must consult with the California Department of Fish and Wildlife and shall apply for and secure an Incidental Take Permit (ITP) prior to any Project development activities.

8.0 Certification

Date: August 5, 2025

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this City of Chino Hills required Burrowing Owl Habitat Assessment and Focused Survey Report to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Sincerely,

Miranda Villalobos Biologist/Regulatory Specialist



Attachments

1. Figures
2. Site Photographs
3. Flora and Fauna Compendium

9.0 References

"Burrowing Owl I Owl Research Institute." Owlresearchinstitute, www.owlresearchinstitute.org

California Burrowing Owl Consortium, 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines

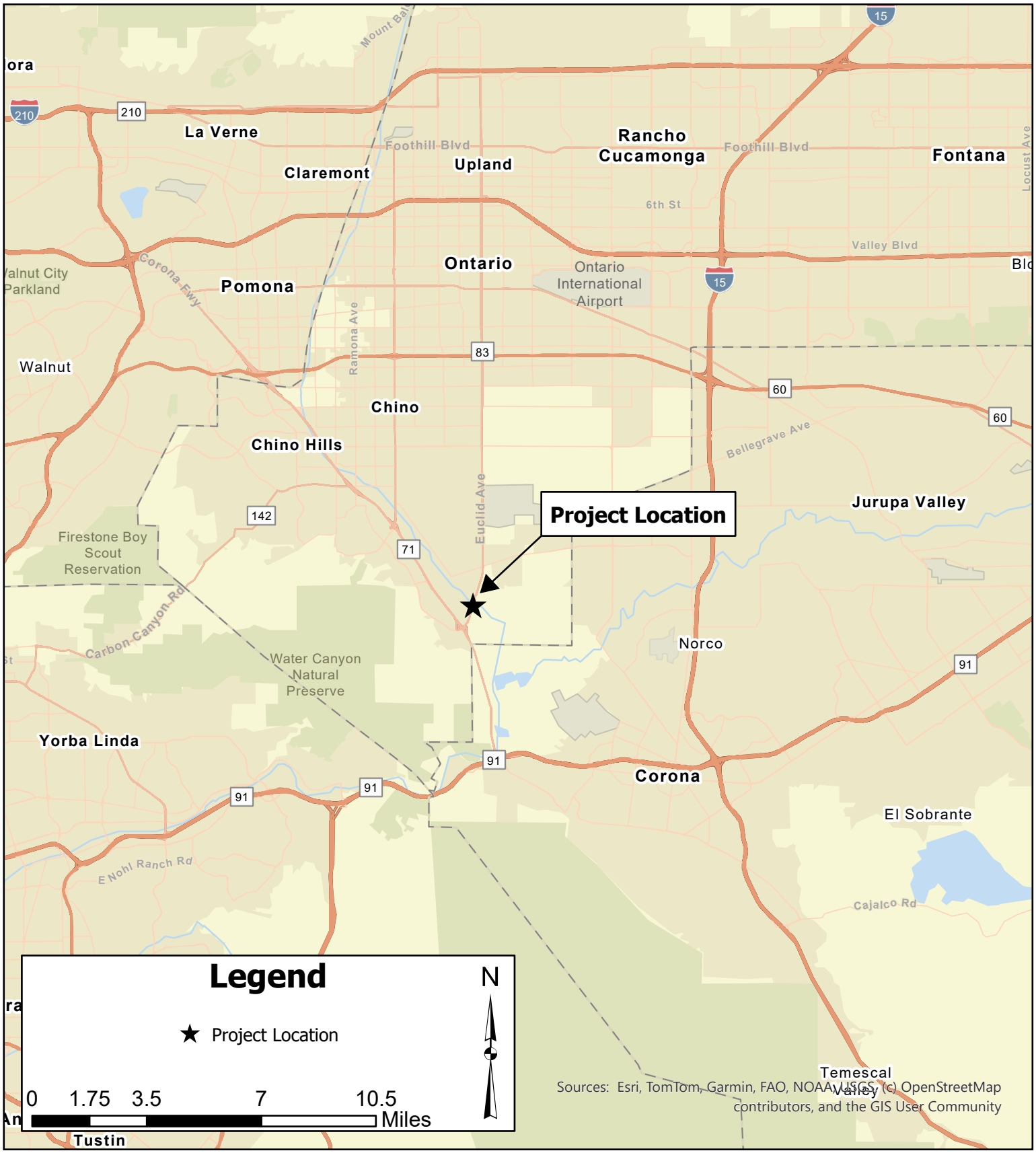
California Department of Fish and Wildlife (CDFW), 2012. Staff Report on Burrowing Owl Mitigation

California Department of Fish and Wildlife (CDFW), 2025. RareFind 5, California Natural Diversity Data Base, California. Database report on threatened, endangered, rare, or otherwise sensitive species and communities for the *Prado Dam* 7.5-minute USGS quadrangle.

Center for Biological Diversity, Defenders of Wildlife, Burrowing Owl Preservation Society, Santa Clara Valley Audubon Society, Urban Bird Foundation, Central Valley Bird Club, San Bernardino Valley Audubon Society. March 2024. Petition Before the California Fish and Game Commission to List California Populations of the Western Burrowing Owl (Athene cunicularia hypugaea) as Endangered or Threatened Under the California Endangered Species Act

Chukar. "Eyes and Ears on Burrowing Owls: A Project of Pomona Valley Audubon Society." SANTA MONICA BAY AUDUBON SOCIETY BLOG, 25 Mar. 2020, smbasblog.com/2020/03/25/eyes-and-ears-on-burrowing-owls-a-project-of-pomona-valley-audubon

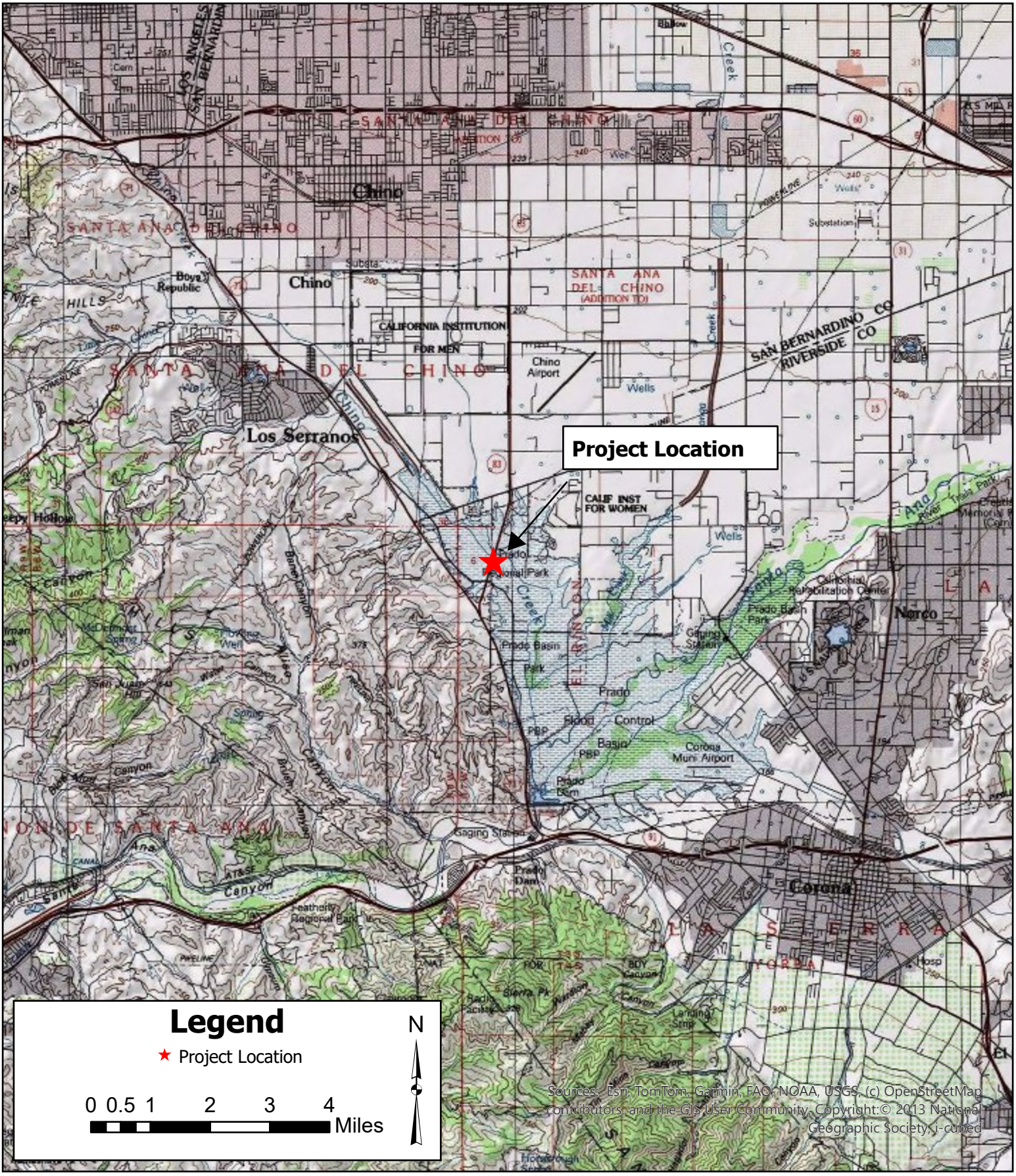
Attachment 1.
Figures



Euclid Avenue Bridge Project

Regional Vicinity Map

Figure 1

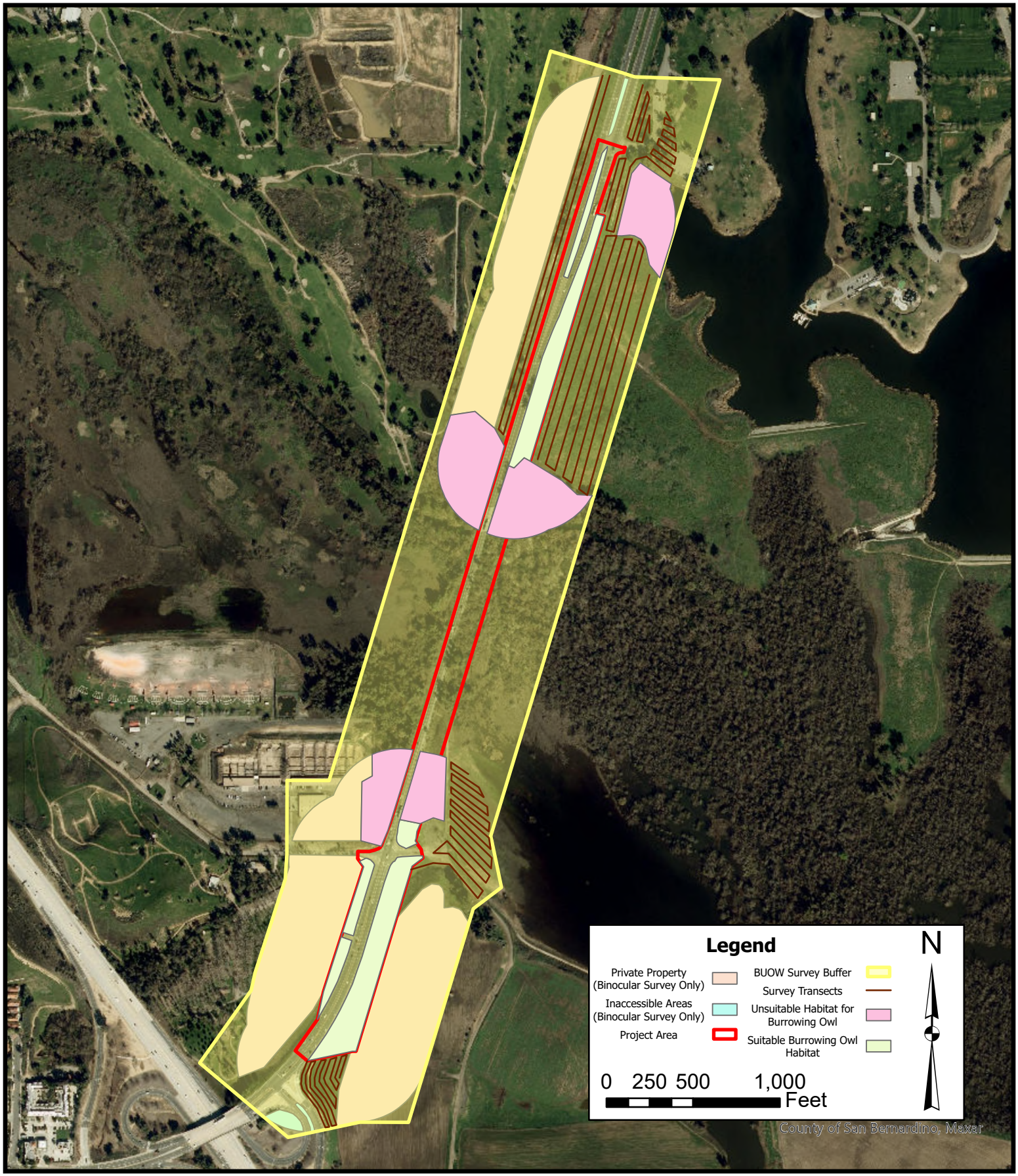


Euclid Avenue Bridge Project

Site Vicinity Map

RVA

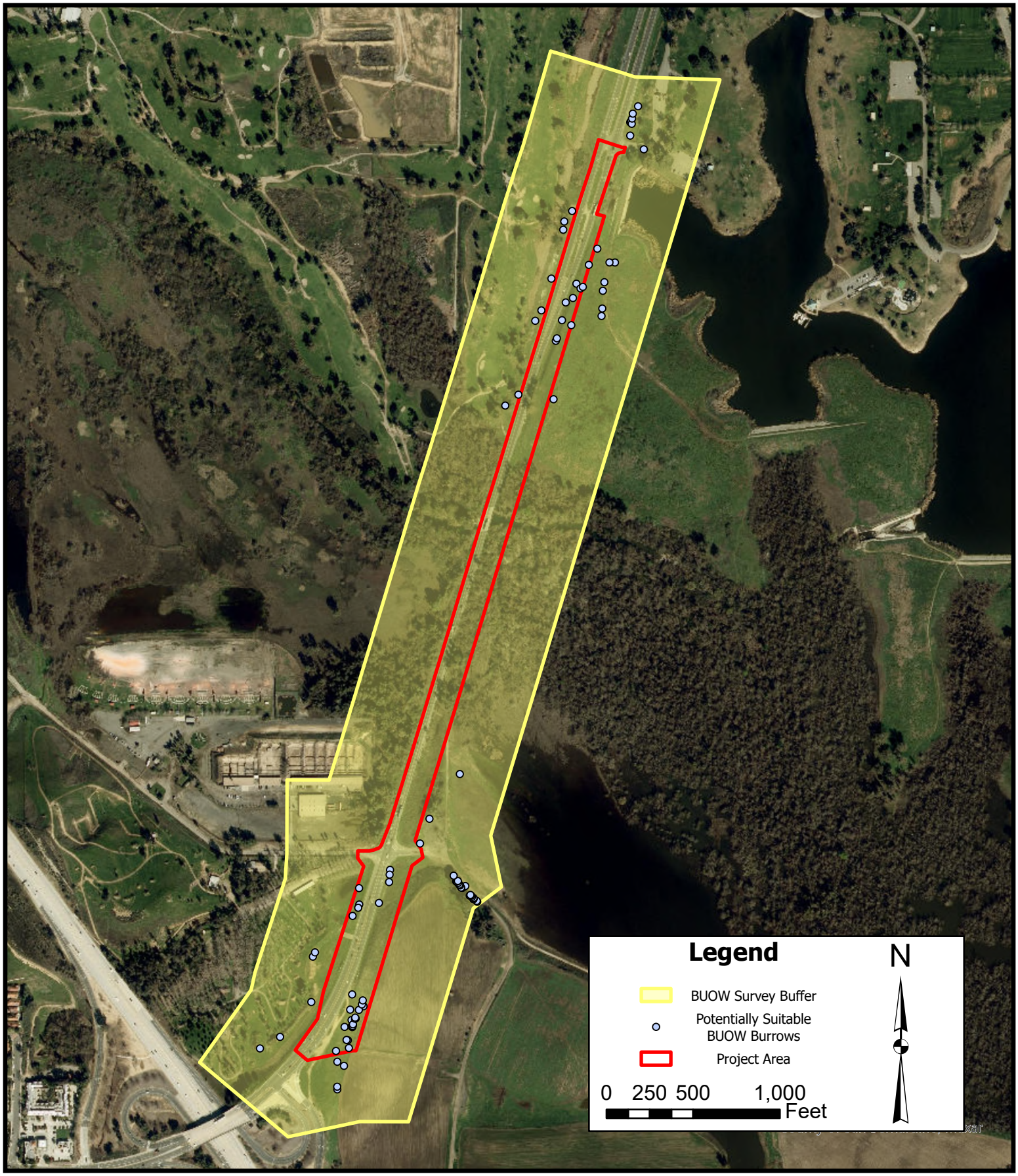
Figure 2



Euclid Avenue Bridge Project

BUOW Survey Area and Buffer

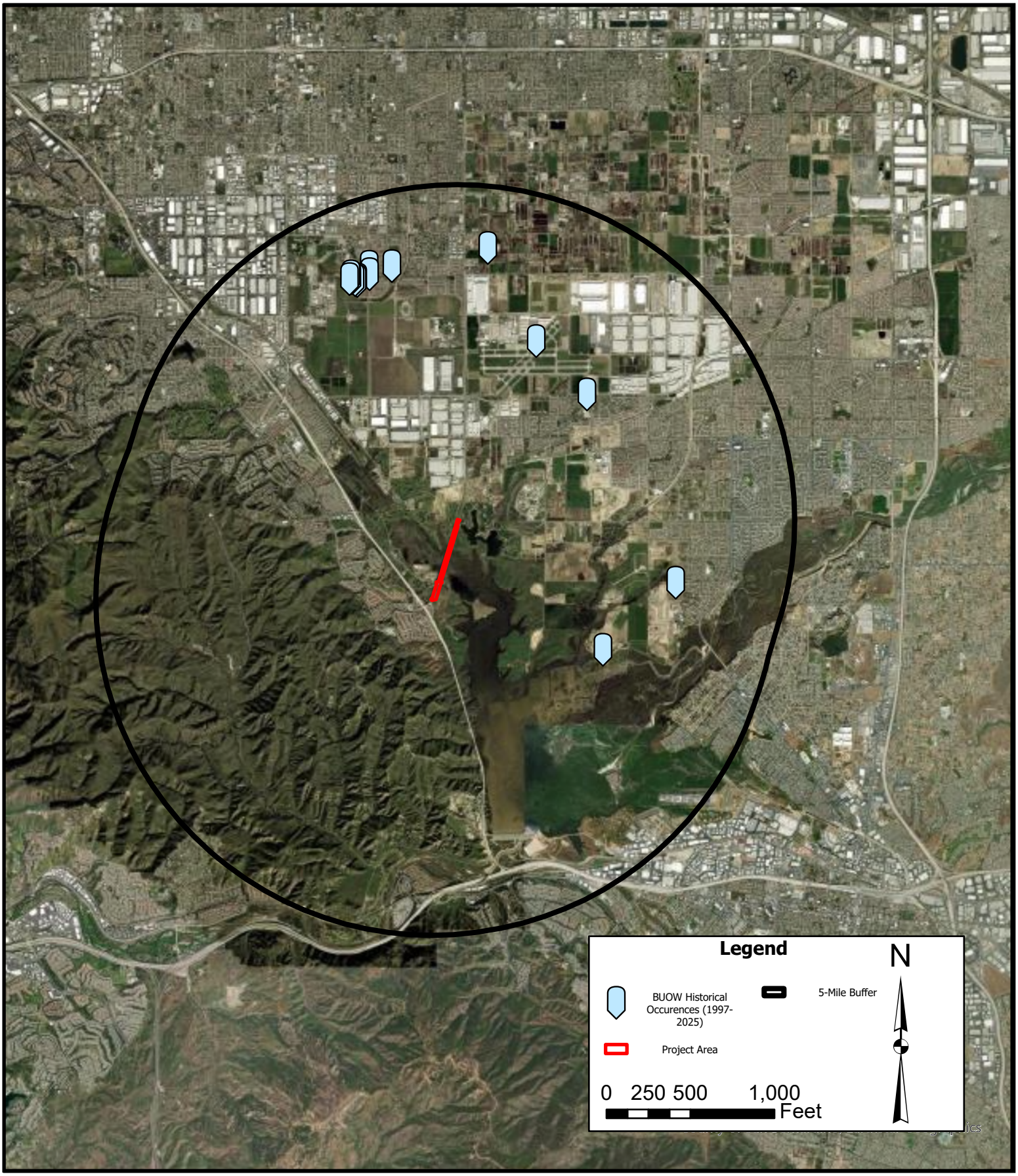
Figure 3



Euclid Avenue Bridge Project

Potential Burrowing Owl Locations Map

Figure 4



Euclid Avenue Bridge Project

Burrowing Owl Historical Occurrences Map

Figure 5

Attachment 2.
Site Photos



Photo 1: Showing site conditions for northwestern side of project during April 9 site assessment



Photo 2: Showing site conditions for southwestern side of project during June 18 survey.



Photo 3: Showing site conditions for southeastern side of project during April 9 survey.



Photo 4: Showing site conditions northeastern side of project during April 9 survey.

Euclid Avenue Bridge Project

Site Photos



Photo 5: Showing one of the squirrel burrows in the squirrel colony area.



Photo 6: Showing survey area on southeastern side of project.



Photo 7: Show photo of squirrel colony area on the southeastern edge of project.



Photo 8: Showing site conditions for riparian wetland area.

Attachment 3.
Flora/Fauna Compendium

Flora/Fauna Compendium

RVA staff biologists Zachary Jenson, Kelsie Cook, Isabella Garcia and Jaclyn Fritz completed a biological resource assessment of the Project area and the surrounding areas on the following days April 9 and April 24, May 20, June 18, 2025. This list documents plant and animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their activity patterns, growing seasons, or limited observation time.

Flora

Type	Family	Scientific Name	Common Name
Flora:	Native Species		
	Dicots		
	Adoxaceae		
	Anacardiaceae		
	Apiaceae	*Oenanthe sarmentosa*	Water Parsley
	Apocynaceae	*Asclepias fascicularis*	Narrowleaf Milkweed
	Asparagaceae		
	Asteraceae	*Artemisia californica* *Erigeron canadensis* *Helianthius annuus* *Heterotheca grandiflora* *Lasthenia gracilis* *Microseris douglasii* *Verbesina encelioides*	California Sagebrush Horseweed Common Sunflower Telegraph Weed Needle Goldfields Douglas' Silverpuffs Cowpen Daisy
	Boranginaceae	*Amsinckia menziesii var. intermedia* *Amsinckia menziesii*	Common Fiddleneck Menzies' Fiddleneck
	Cactaceae		
	Convolvulaceae		
	Euphorbiaceae		
	Fabaceae	*Lupinus bicolor* *Lupinus microcarpus* *Lupinus spp.* *Lupinus succulentus*	Annual lupine Chick Lupine Lupine Arroyo Lupine
	Fagaceae		
	Malvaceae	*Malvella leprosa*	Alkali Mallow

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Oleaceae	*Fraxinus velutina*	Velvet Ash
	Papaveraceae		
	Phrymaceae	*Diplacus brevipes*	Wide-Mouth Monkeyflower
	Platanaceae	*Platanus racemosa*	California Sycamore
	Polygonaceae	*Eriogonum fasciculatum* *Persicaria lapathifolia* *Rumex salicifolius*	California Buckwheat Common Knotweed Willow-leaved Dock
	Rosaceae	*Rubus ursinus*	California Blackberry
	Salicaceae	*Populus deltoides* *Salix gooddingii* *Salix niagra*	Eastern Cottonwood Goodding's black willow Black Willow
	Sapindaceae	*Acer negundo*	Box Elder
	Solanaceae	*Datura Wrightii*	Jimsonweed
	Urticaceae	*Urtica dioica ssp. gracilis* *Urtica dioica ssp. Holosericea*	Stinging Nettle Giant Creek Nettle
	Monocots		
	Cyperaceae	*Cyperus eragrostis*	Tall Flatsedge
	Poaceae	*Alopecurus saccatus* *Phalaris aquatica*	Pacific Foxtail Harding Grass
	Typhaceae	*Typha latifolia*	Broadlead Cattail
	Non-Native Species		
	Dicots		
	Amaranthaceae	*Atriplex semibaccata*	Australian Saltbush
	Apiaceae	*Conium maculatum* *Foeniculum vulgare*	Poison Hemlock Wild Fennel
	Asteraceae	*Carduus pycnocephalus* *Centaurea melitensis* *Centaurea solstitalis* *Cirsium vulgare* *Helminthoteca echioides* *Pulicaria paludosa* *Silybum marianum* *Sonchus asper* *Taraxacum officinale*	Italian Thistle Yellow Star-Thistle Maltese Star-Thistle Bull Thistle Bristly Ox-Tongue Spanish Fleabane Milk Thistle Spiny Sowthistle Dandelion

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Brassicaceae	*Brassica nigra* *Hirschfeldia incana* *Lepidium latifolium* *Raphanus raphanistrum* *Raphanus sativus*	Black Mustard Short-pod Mustard Broadleaved pepperweed Jointed Charlock Wild Radish
	Cannabaceae	*Ricinus communis*	Castor Bean
	Chenopodiaceae	*Salsola tragus*	Prickly Russian Thistle
	Convolvulaceae	*Convolvulus arvensis*	Field Bindweed
	Fabaceae	*Medicago polymorpha* *Medicago sativa* *Parkinsonia aculeata*	California Burclover Alfalfa Mexican Palos Verde
	Geraniaceae	*Erodium cicutarium* *Erodium spp.*	Common Stork's Bill Erodium
	Lamiaceae	*Marrubium vulgare* *Stachys byzantina*	White Horehound Lamb's Ear
	Malvaceae	*Malva parviflora*	Cheeseweed
	Myrtaceae	*Eucalyptus camaldulensis*	Red Gum
	Onagraceae	*Ludwigia peploides*	Floating Primrose-Willow
	Plantaginaceae	*Plantago major* *Veronica anagallis-aquatica*	Common Plantain Blue Water- Speedwell
	Poaceae	*Arundo donax*	Arundo
	Polygonaceae	*Rumex crispus*	Curly Dock
	Primulaceae	*Lysimachia arvensis*	Scarlet Pimpernel
	Salicaceae		
	Sapindaceae	*Koelreuteria paniculata*	Golden Raintree
	Solanaceae	*Nicotiana glauca* *Solanum crispum*	Tree Tobacco Chilean nightshade
	Tamaricaceae	*Tamarix ramosissima*	Tamarisk

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Urticaceae	*Urtica urens*	Annual Nettle
	Monocots		
	Poaceae	*Avena fatua* *Bromus arvensis* *Bromus diandrus* *Bromus madritensis ssp. Rubens* *Hordeum murinum* *Lolium perenne* *Phalaris aquatica* *Phalaris canariensis* *Sorghum bicolor* *Sorghum halepense*	Wild Oat Field Brome Ripgut Brome Red Brome Foxtail Barley Perennial Ryegrass Harding Grass Mediterranean Canary Grass Sorghum Johnson Grass
	Typhaceae		

Flora/Fauna Compendium

RVA staff biologists Isabella Garcia, Kelsie Cook, and Zachary Jenson completed a biological resource assessment of the Project area and the surrounding areas on the following days April 9, April 24, May 20 and June 18, 2025. This list documents plant and animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their activity patterns, growing seasons, or limited observation time.

Fauna

Type	Family	Scientific Name	Common Name
	Amphibian Species		
	Ranidae	*Lithobates catesbeianus*	American bullfrog
Fauna:	Avian Species		
	Accipitridae	*Accipter cooperii* *Buteo jamaicensis*	Cooper's Hawk Red-tailed Hawk
	Aegithalidae	*Psaltriparus minimus*	Bushtit
	Anatidae	*Anas platyrhynchos* *Fulica americana* *Oxyura jamaicensis*	Mallard American Coot Ruddy Duck
	Apodidae	*Aeronautes saxatalis*	White-Throated Swift
	Ardeidae	*Ardea herodias* *Nycticorax nycticorax*	Great Blue Heron Black-Crowned Night Heron
	Cardinalidae	*Passerina amoena*	Lazuli Bunting
	Cathartidae	*Cathartes aura*	Turkey Vulture
	Charadriidae	*Charadrius vociferus*	Killdeer
	Columbidae	*Zenaida macroura*	Mourning dove
	Corvidae	*Corvus brachyrhynchos* *Corvus corax*	American Crow Common Raven
	Emberizidae		
	Estrildidae		
	Falconidae		
	Fringillidae	*Haemorhous mexicanus* *Spinus lawrencei* *Spinus psaltria* *Spinus tristis*	House Finch Lawrence Goldfinch Lesser Goldfinch American Goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	Cliff Swallow
	Icteridae	*Agelaius phoeniceus* *Icterus bullockii* *Icterus cucullatus* *Molothrus ater* *Quiscalus mexicanus*	Red-Winged Blackbird Bullock's Oriole Hooded Oriole Brown-Headed Cowbird Great-Tailed Grackle
	Mimidae		
	Paridae		
	Parulidae	*Geothlypis trichas* *Icteria virens* *Setophaga coronata* *Setophaga petechia* *Setophaga townsendi*	Common Yellowthroat Yellow-Breasted Chat Yellow-Rumped warbler Yellow Warbler

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
			Townsend's Warbler
	Passerellidae	*Melospiza melodia* *Melozone crissalis* *Pipilo maculatus* *Zonotrichia leucophrys*	Song Sparrow California Towhee Spotted Towhee White-crowned Sparrow
	Passeridae	*Passer domersticus*	House Sparrow
	Phalacrocoracidae	*Nannopterum auritum*	Double-Crested Cormorant
	Picidae	*Colaptes auratus* *Melanerpes formicivorus* *Picoides nuttallii*	Northern Flicker Acorn Woodpecker Nuttall's Woodpecker
	Podicipedidae	*Aechmophorus occidentalis*	Western Grebe
	Rallidae	*Fulica americana*	American Coot
	Sturnidae	*Sturnus vulgaris*	European Starling
	Trochilidae	*Calypte anna* *Selasphorus sasin*	Anna's Hummingbird Allen's Hummingbird
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Turdidae	*Sialia mexicana* *Turdus migratorius*	Western Bluebird American Robin
	Tyrannidae	*Pyrocephalus obscurus* *Sayornis nigricans* *Tyrannus verticalis*	Vermilion Flycatcher Black Phoebe Western Kingbird
	Tytonidae		
	Vireonidae	*Vireo bellii pusillus* *Vireo huttoni*	Least Bell's Vireo Hutton's Vireo
	Bivalvia Species		
	Crustacean Species		
	Fish Species		
	Insect Species		
	Apidae	*Apis* *Bombus Crotchii* *Bombus pensylvanicus* *Bombus vosnesenskii* *Xylocopa*	Western Honey Bee Crotch's Bumblebee American Bumblebee Yellow-Faced Bumblebee Carpenter Bee
	Chrysomelidae	*Chrysochus cobaltinus* *Paropsis atomaria*	Blue Milkweed Beetle Dotted Paropsine Leaf Beetle
	Cicadae	*Okanagana sp.*	Cicada Spp
	Ixodidae	*Dermacentor variabilis*	American Dog Tick
	Mammalian Species		
	Leporidae	*Sylvilagus audubonii*	Desert cottontail
	Sciuridae	*Otospermophilus beecheyi*	California Ground Squirrel
	Reptilian Species		
	Phrynosomatidae	*Sceloporus occidentalis*	Western Fence Lizard

August 20, 2025

Biggs Cardosa Associates Inc.
500 S. Main Street, Suite 1200
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SUBJECT:
Crotch's Bumble Bee Focused Surveys for the Euclid Avenue Bridge Project Located in the City of Chino, San Bernardino County, California.

PURPOSE

The following provides the results of focused visual presence/absence surveys for Crotch's bumble bee (*Bombus crotchii*) for the proposed Euclid Avenue Bridge Project (Project) in the City of Chino, California. Ruth Villalobos & Associates, Inc. (RVA) biologists performed surveys on May 20, July 15, and August 20, 2025. This report summarizes all the findings below.

SPECIES BACKGROUND

Crotch's bumble bee (CBB) are found in a variety of habitats, including open grasslands, shrublands, chaparral, desert margins, Joshua tree scrub, creosote scrub, and semi-urban settings. As a short-tongued species of bumble bee, the species prefers certain plant species as a food source, such as milkweeds (*Asclepias spp.*), dusty maidens (*Chaenactis spp.*), lupines (*Lupinus spp.*), phacelias (*Phacelia spp.*), sages (*Salvia spp.*), poppies (*Papaver spp.*), and wild buckwheat (*Eriogonum spp.*). Little is known about the overwintering habitats of western bumble bees, including CBB. The entomology professor Neal Williams and his team of graduate students at the University of California, Davis found overwintering habitats for western bumble bees differ from their foraging and nesting habitats. Their research found overwintering habitat consisted of grassy meadows without floristic resources. All overwintering queen bumble bees found during the field surveys were approximately 1-1.5 meters from tree trunks (Williams et al, 2019). The trees were theorized to offer protection from burrowing predators and inclement weather via leaf litter. This research concluded overwintering habitat of western bumble bee species could be characterized as a grasslands with old growth trees, providing protection from predators and weather. It is theorized all western bumble bees have similar overwintering habits due to similarity of forging and nesting habits between the species, which is more observable.

On October 17, 2018, the California Fish and Game Commission (Commission) received a petition from the Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety to list the Crotch's bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley's cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidenalis*) as endangered under the California Endangered Species Act (CESA). The petition to the Commission stated that these bumble bee species are endangered with extinction throughout their ranges, including in California. CBB was historically common in the southern two-thirds of California; however, the species now appears to be absent from most of the State, especially within its historic range. The Commission determined listing of these species as endangered under CESA "may be warranted" and these species became candidates for listing on June 12, 2019. While the listing was legally challenged, the Commission's decision was ultimately upheld, and candidacy was reinstated on September 30, 2022. Therefore, CBB now has the same legal protection afforded to an endangered or threatened species per California Fish and Game Code sections 2074.2 and 2085. These protections will last throughout the species' candidacy period. Once the Commission decides to list the species, protection will either continue if listed or be removed if not listed.

PROJECT LOCATION

The proposed Project is located in the City of Chino, in San Bernardino County, California (see Figure 1 – Regional Vicinity Map). The proposed Project site is located along Euclid Avenue within the Prado Basin and crosses Chino Creek. The site is located within United States Geological Survey 7.5-minute quadrangle *Prado Dam* in Section 6,

of Township 3 South, Range 7 West. The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/State Route 71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82'). The entirety of the Project location is within the Euclid Avenue public right-of-way (See Figure 2 – Site Vicinity Map).

PROJECT DESCRIPTION

The Project site is approximately 20.50 acres in area. Project development would include elevating Euclid Avenue above the Prado Basin 50-year inundation pool elevation (543 feet above mean sea level). The Feasibility Study Report identified potential wetland and non-wetland waters of the United States along Euclid Avenue. A long bridge structure is desirable because a pile-supported bridge will reduce permanent biological impacts and in turn is anticipated to expedite USACE and regulatory agency permitting processes. The Project would include construction of a new viaduct structure (i.e. "Euclid Avenue Viaduct") crossing above Pomona Rincon Road and over Chino Creek within the Prado Basin. Thereby, Project development would protect Euclid Avenue from flood waters associated with extreme rain events and allow the new roadway to remain open to traffic during storm events. Traffic circulation would be facilitated further by widening the new roadway to four lanes to match existing roadway capacity and by adding bicycle and pedestrian lanes. In addition, embankments supported by retaining walls will be constructed outside the limits of the Euclid Avenue Viaduct.

Project development would require an estimated 20,000 cubic yards of cut and 96,000 cubic yards of fill material. Cut material will not be suitable to use as fill. Therefore, fill material will be transported along existing roadways from areas outside the Project site. It is assumed the USACE will require the 76,000 cubic yards of imported fill material to be offset with excavation/borrow elsewhere within the Prado Basin although the borrow location has not been determined.

The sensitive water and biological resources in the project area were taken into consideration during the Project's development and design with impacts to them minimized to the greatest extent feasible. Retaining walls and imported fill soils will be constructed outside the jurisdictional limits. Fill material is anticipated to be secured elsewhere in the Prado Basin, potentially within USACE Federal lands and/or easements.

Prior to project development, potholing and geotechnical boring activities will be necessary to aid the final design plan. Potholing is required to verify the presence and location of underground utilities. A total of 26 pothole locations are proposed within the Euclid Avenue Bridge Project construction footprint. Each pothole would have an average diameter of 12 inches, depth of 5 feet (not to exceed depth of 10 feet), and 4 cubic yards of material removed and would be backfilled with sand. Equipment used would include an air-vac truck, a heavy-duty pick-up truck, and two traffic control trucks. All potholes are in the roadway or immediately adjacent to the roadway.

A total of 27 geotechnical borings are proposed, each with an average diameter of 10 inches with varying depths from 10 feet up to maximum of 100 feet. All proposed geotech boring locations are proposed within the Euclid Avenue Bridge Project construction footprint. Boring methods would include either hollow-stem auger borings or rotary-wash borings. Equipment used would include a drill rig, support truck, pick-up truck, and traffic control trucks.

Project development will occur in six phases that will include the following activities: clearing and grubbing; grading; foundation construction; substructure construction; superstructure construction; retaining wall construction; and roadway construction. These development activities will occur over approximately 18-24 months (commencing in March 2027) and be conducted Monday-Friday between 7:00 a.m. and 5:30 p.m. although the City of Chino Municipal Code allows such activity to extend to 8:00 p.m. Night and weekend work may be required throughout construction (to tie back into the existing portions of Euclid Avenue at the ends of the Project improvements, for example), but would have short durations.

The following describes anticipated project phases, including estimated construction equipment and daily number of workers on site:

- Phase 1 (Clearing and Grubbing): This development phase will consist of removing existing vegetation within the limits of the Project, using four Cat 924K front end loaders (or similar equipment), a 15-ton crane, and six 25 cubic yard dump trucks. It is anticipated 20 workers (daily) would be required to accomplish these activities. A significant amount of vegetation will need to be removed to accommodate Project improvements.
- Phase 2 (Grading): Grading will prepare the Project site for construction activities. Two Cat D9 dozers (or similar), one grader, and a water truck operated by 10 workers will accomplish this phase.
- Phase 3 (Foundation Construction): It is anticipated 12 workers will operate at least one Bauer BG40 drill rig (or similar device), two 70-ton cranes, one hydraulic casing oscillator, one concrete pump, one skid steer, one forklift, one manlift, as many as five slurry tanks, one generator, and one water truck to accomplish this phase.
- Phase 4 (Substructure Construction): Approximately 25 workers will complete this phase using two 160-ton cranes, four manlifts, two forklifts, and one water truck.
- Phase 5 (Superstructure Construction): Approximately 35 workers will use one 330-ton crane, four manlifts, two forklifts, and one water truck to complete this phase.
- Phase 6 (Approach Embankment Construction): Approximately 25 workers will use one roller compactor, one Cat 924K front end loader (or similar), one grader, six 25 cubic yard dump trucks, two forklifts, and one water truck to complete this phase.

Multiple staging areas will be required during construction, including one such area at the north end of the Project site (to be available throughout the duration of the Project) immediately south of the entrance to Prado Regional Park. A second staging area is anticipated at the south end of the Project site that will be available until the Pomona Rincon Road ramps are constructed. All ingress and egress for Project construction vehicles will be via Euclid Avenue and Pomona Rincon Road and additional ingress/egress from Pomona Rincon Road and Euclid Avenue will be available for the routine maintenance of the viaduct superstructure.

Utilities are present within the Project site and will require protection-in-place or relocation as part of Project development. Southern California Edison has overhead and underground distribution lines, some of which will require relocation. Verizon has several buried and overhead aerial communication lines near the Pomona Rincon Road intersection. There also is a Santa Ana Watershed Project Authority Brine Line, 36-42 inches in diameter, located approximately 33 feet east and parallel to the Euclid Avenue centerline. This brine line is anticipated to be protected in place.

METHODOLOGY

Desktop Review

Prior to conducting the three focused visual presence/absence surveys for *Bombus crotchii,* RVA biologists reviewed occurrence data within and adjacent to the Project site. This review included current and historical records from sources such as the California Natural Diversity Database, Bumble Bee Watch, the Xerces Society for Invertebrate Conservation, and iNaturalist (only observations considered Research Grade by the site's Data Quality Assessment were considered). The desktop review found two documented occurrences of CBB within a five-mile radius of the Project area. indicated a March 6th, 2024 CBB occurrence approximately 1.08 linear miles south of the proposed Project site area and a May 14th, 2024 CBB occurrence approximately 2.01 linear miles southwest of the Project site area. Refer to Figure 3 – Crotch's Bumble Bee Documented Occurrences Map.

The March 6th, 2024, occurrence was reported to the California Natural Diversity Database and iNaturalist. A photo on iNaturalist was used to corroborate the positive identification of the CBB observation. The CBB individual was found along the walking route around the wetland ponds at Prado Basin. The preferred floristic resources utilized by CBB observed in the area were snapdragons (*Antirrhinum sp.*), scorpion weed (*Phacelia sp.*), clarkia (*Clarkia sp.*), tree poppy (*Dendromecon sp.*), California poppy (*Eschscholzia sp.*), and wild buckwheat (*Eriogonum sp.*).

The May 14th, 2024, occurrence was reported to the Xerces Society Bumble Bee Watch database. The pictorial evidence was corroborated and verified by the project's leading biologist, Leif Richardson of the Xerces Society. The individual CBB was determined to be a queen and was observed to be foraging on a branching phacelia plant along trail, within the Chino Hills State Park.

Focused Crotch's bumble bee Surveys (Visual Absence/Presence)

Following the desktop review, RVA biologists performed on-site focused visual presence/absence surveys for CBB within and adjacent to the proposed Project site. RVA biologists conducted all of the CBB surveys consistent with survey protocol developed by the California Department of Fish and Wildlife's *Survey Considerations for CESA Candidate Bumble Bee Species* (June 2023). Photos of bumble bees were taken on vegetation as the bumble bees foraged. A qualified biologist used photos to identify each individual bumble bee to the species level.

Survey efforts focused on areas with potentially suitable habitat and resources for foraging, nesting and overwintering, which in particular included flowering plants, small rodent burrows, insect burrows and leaf litter. The table below summarizes each survey conducted. Per survey protocol, biologists performed the recommended at least three (3) on-site surveys spaced 2-4 weeks apart during the Colony Active Period for CBB, which is between April through August. Per survey protocol, the surveys occurred during the day (at least an hour after sunrise and at least two hours before sunset, though ideally between 9am to 1pm), on warm, but not hot, sunny days (temperature range of 65-90 degrees Fahrenheit), and with low wind (less than 8 miles per hour). Biologists walked meandering transects throughout the study area with floral resources for foraging and bare ground with signs of potential burrows for nesting. Refer to Figure 4 – Crotch's Bumble Bee Survey Area Map. In accordance with survey protocol, a minimum of one (1) person-hour of searching/surveying was performed per three (3) acres of suitable habitat. CDFW's preferred survey method was used to identify bumble bees.

Table 1 – Summary of Surveys Conducted

Survey Date	Start Time/End Time	Temperature	Surveyors	Wind Speed	Observations
05/20/25	9:00 am – 10:30 am	72°F - 77°F	ZJ, KC, JF	2 mph	- No *B. crotchii* observed. - Honey bees and carpenter bees observed foraging.
7/15/2025	6:30 – 8:00 am	62°F - 67°F	ZJ, KC	2 mph	- *B. Crotchii* worker bee/drone observed foraging on Mexican palo verde trees. - *B. vosnensenskii* worker bees observed Mexican palo verde trees. - Moderate bee activity observed from honey bees and carpenter bees.
8/20/25	7:45 – 9:00 am	68°F - 74°F	MV, ZJ, KC	0 mph	- No *B.crotchii* was observed. - Mexican palo verde (*Parkinsonia aculeata*) trees out of bloom. - honey bees and carpenter bees were observed to be foraging. - Bee activity decreased significantly compared to previous surveys.

MV: Miranda Villalobos ZJ: Zachary Jenson KC: Kelsie Cook JF: Jaclyn Fritz
IG: Isabella Garcia

RESULTS

Existing Site Conditions

The proposed Project site predominantly consists of the paved Euclid Avenue roadway surrounded by private agricultural lands, public lands, and commercial/retail uses. The majority of the survey area is located along the east side in addition to the northern and southern ends of the Project Site. Vegetation that was flowering during the first incidental sighting did not occur in the following surveys. This may be attributed to the heatwave that struck the area prior to the first survey. The majority of the flowering plants in the transect areas were lupine (*Lupinus spp.*), jimsonweed (*Datura wrightii),* common sunflower (*Helianthus annuus*) and Mexican palos verde (*Parkinsonia aculeata*). Amongst the vegetation many insect and mammalian burrows were observed and could be potential nesting habitat. The openings of these burrows ranged from a quarter of an inch to approximately four (4) inches in diameter. Additionally, along and within Chino Creek, the woody riparian forest edge offers overwintering habitat through leaf litter and moss.

Plant species observed in bloom during the time of the survey included poison hemlock (*Conium maculatum*), short pod mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), wide-mouth monkeyflower (*Diplacus brevipes*), Maltese star thistle (*Centaurea solstitalis*), common plantain (*Plantago major*), slender thistle (*Carduus tenuiflorus*), bull thistle (*Cirsium vulgare*), field bindweed (*Convolvulus arvensis*), white horehound (*Marrubium vulgare*), common stork's bill (*Erodium cicutarium*), narrowleaf milkweed (*Asclepias fascicularis*), golden crownbeard (*Verbesina encelioides)*, milk thistle (*Silybum marianum*), italian thistle (*Carduus pycnocephalus*), yellow star-thistle (*Centaurea melitensi*)*,* maltese star-thistle (*Centaurea solstitalis),* spiny sowthistle *(Sonchus asper),* jimsonweed *(Datura Wrightii*)*,* common sunflower (*Helianthus annuus*), Mexican palos verde (*Parkinsonia aculeata*)*,* scarlet pimpernel (*Lysimachia arvensi*s), broadleaved pepperweed (*Lepidium latifolium*)*,* Australian saltbush (*Atriplex semibaccata*)*,* Spanish fleabane (*Pulicaria paludosa*)*,* bristly ox-tongue (*helminthoteca echioides),* blue water-speedwell (*Veronica anagallis-aquatica*)*,* common knotweed (*Persicaria lapathifolia*), telegraph weed (*Heterotheca grandiflora*), alfalfa (*Medicago sativa*), arroyo lupine (*Lupinus succulentus*), tree tobacco (*Nicotiana glauca*), and floating primrose-willow (*Ludwigia peploides*). A complete list of plant and wildlife species observed during the surveys is provided in Attachment 2 – Flora and Fauna Compendium.

May 20th, 2025 Focused Survey

During the May 20th survey, arroyo lupine (*Lupinus succulentus*), cowpen daisy (*Verbesina encelioides*), jimsonweed (*Datura wrightii*), shortpod mustard (*Hirschfeldia incana*), thistle (*Cirsium sp.*), and bristly ox-tongue (*Helminthotheca echioides*) were blooming in abundance. CBB or other species within the genus *Bombus* were not observed during the survey. Honey bees and carpenter bees were observed foraging in abundance.

July 15th, 2025 Focused Survey

During the July 15th survey, douglas silver puffs (*Microseris douglasii),* cowpen daisy, jimsonweed, shortpod mustard, bristly ox-tongue, and Mexican palo verde (*Parkinsonia aculeata*) were blooming in abundance. Multiple occurrences of CBB were observed forging on large flowering Mexican palos verde trees, in the northwestern portion of the Project area along the golf course. No nests associated with the foraging CBBs were able to be located or observed. Honey bees and carpenter bees were observed foraging in abundance.

August 8th, 2025 Focused Survey

During the August 20th survey, the native species in bloom were common sunflower (*Helianthus annuus*), jimsonweed, telegraph weed (*Heterotheca grandiflora*), thistle, and bristly ox tongue. Honey bees (*Apis mellifera*) and carpenter bees (*Xylocopa sp.*) were observed foraging at plants such as common sunflower, jimsonweed, thistle, telegraph weed, and bristly ox-tongue. CBB or other species within the genus *Bombus* were not observed during the survey. Honey bees and an a moderate amount of carpenter bees were observed foraging.

Throughout the survey period, there was gradual transition in the type and abundance of floristic resources available for pollinators including CBB. The early bloom season saw the most abundance and diversity of floristic resources, which peaked and gradually declined throughout the summer months. The variation in abundances and diversity of available floristic resources coincided with CBB presence within the study area. Due to limited availability of CBB's preferred floristic resources, the species activity was only concentrated on a small area on site.

CONCLUSIONS AND RECOMMENDATIONS

CBB is present on and within the immediate vicinity of the Project area. Refer to Figure 5 – Crotch's Bumble Bee Observations Map. The species was observed during the focused visual survey on July 15th, 2025. In addition to this observation, two incidental sightings of CBB were observed within the Project area, while additional surveys were performed. The incidental sightings occurred on April 9th, 2025, and June 18th, 2025. The April 9th, incidental observation consisted of an individual CBB identified to be a queen. The individual was observed in the southwestern portion of the Project area, near Oranco Bowmen Archery Range. The individual was potentially searching for a nesting location, flying in and out of multiple rodent burrows along the roadside. The individual was not foraging on floristic resources present within the area. The June 18th, incidental observation consisted of multiple individuals of CBB including worker bees and drones. This incidental observation occurred amongst the Mexican palos verde trees, in the northwestern portion of the Project site. This was the same area where the species was observed and documented during the July 15th CBB focused survey. Additionally, the Project area is in close proximity to known CBB overwintering habitat, along Chino Creek.

The finding of the focused CBB surveys confirmed presence of CBB within the Project area. CBB is seemingly utilizing habitat onsite and immediate vicinity for all stages of the species' colony cycle, including the nest establishment, colony active period, as well as overwintering. Due to the species annual establishment of new colonies and the variance of nest locations it is recommended that a pre-construction CBB survey be conducted prior to any Project related ground disturbance. The mitigation measure below, when instituted, would ensure that Project related impacts to Crotch's bumble bee would be reduced to a less than significant level.

Crotch's Bumble bee Pre-Construction Survey:

Prior to commencement of Project development activities, the City of Chino shall employ a qualified biologist familiar with Crotch's bumblebee behavior and life history to conduct a pre-construction presence/absence survey for Crotch's bumblebee prior to site disturbance. If the bumble bee were to be detected (or assumed present) within the development or disturbance footprint, then the City of Chino shall coordinate with California Department of Fish and Wildlife to address the extent of impacts and determine whether an Incidental Take Permit would be required.

CERTIFICATION

Date: August 5, 2025

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this City of Chino Hills required Crotch's Bumble Bee Focused Surveys, to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

If there are any questions regarding this report, please don't hesitate to contact me via email at mvillalobos@rvacorp.com or at (909) 241-7433.

Sincerely,

Miranda Villalobos Biologist/Regulatory Specialist



Attachments:

1. Figures
2. Flora and Fauna Compendium
3. Site Photos

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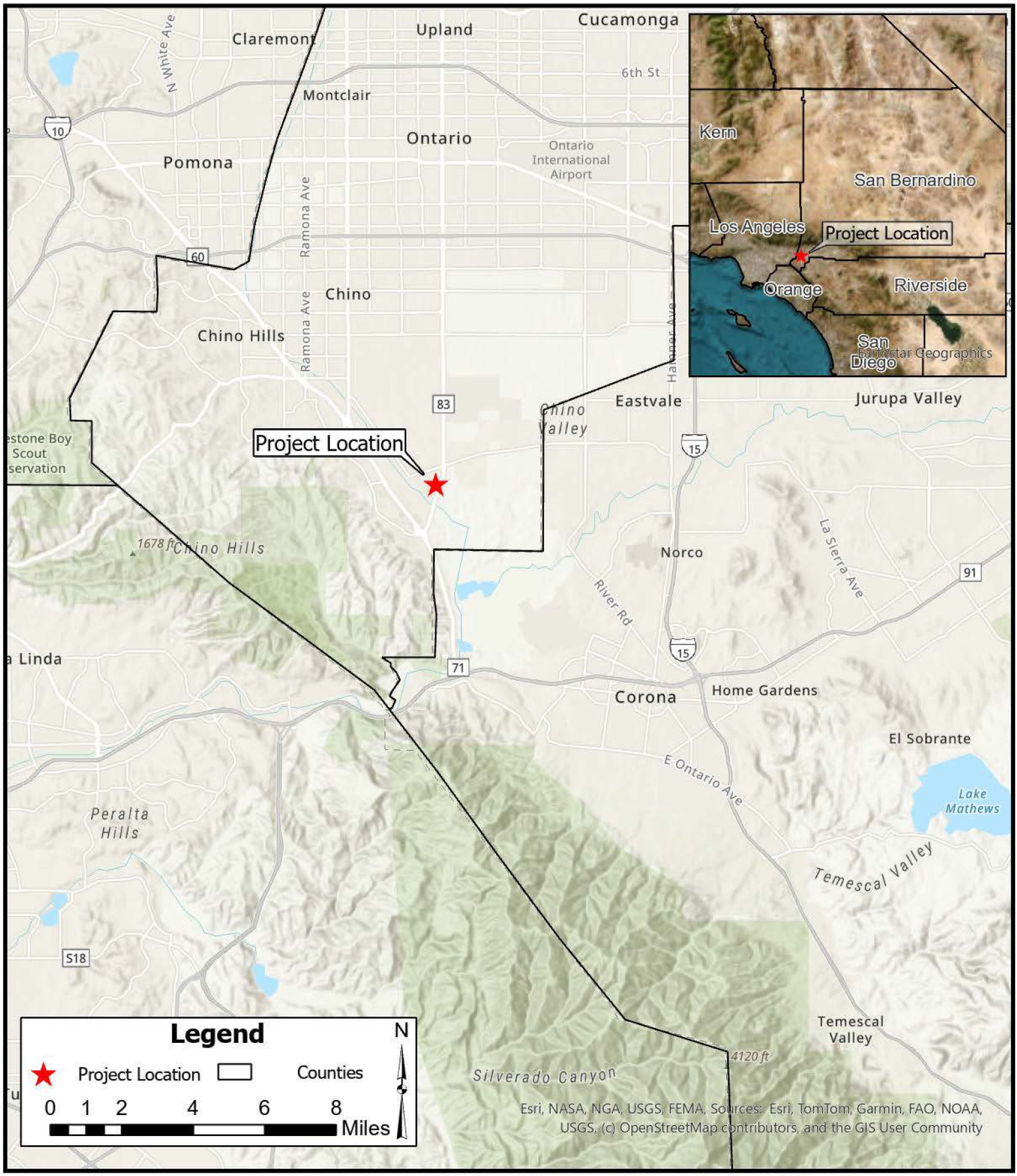
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Attachment 1.

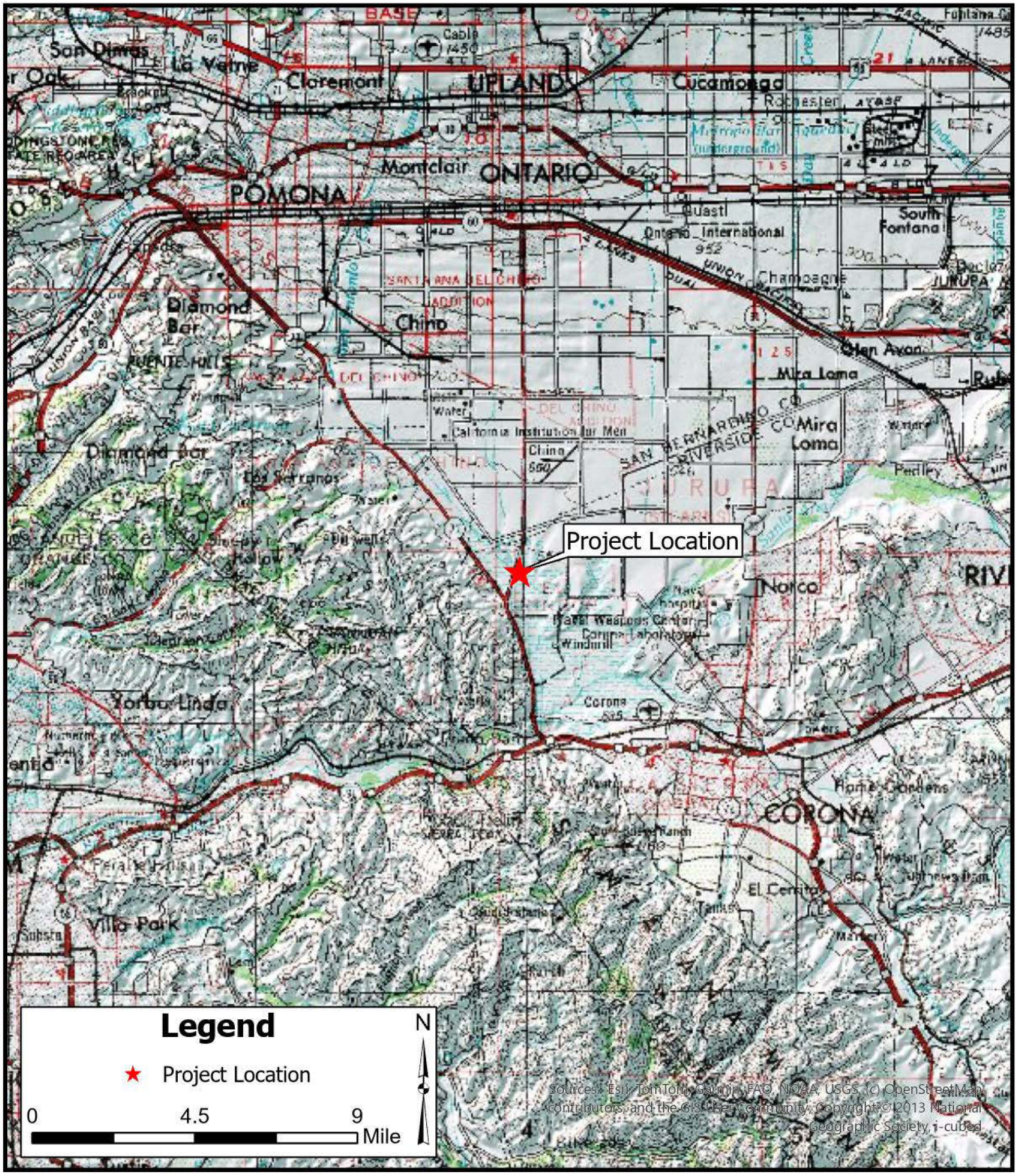
Figures



Euclid Avenue Bridge Project

Regional Map

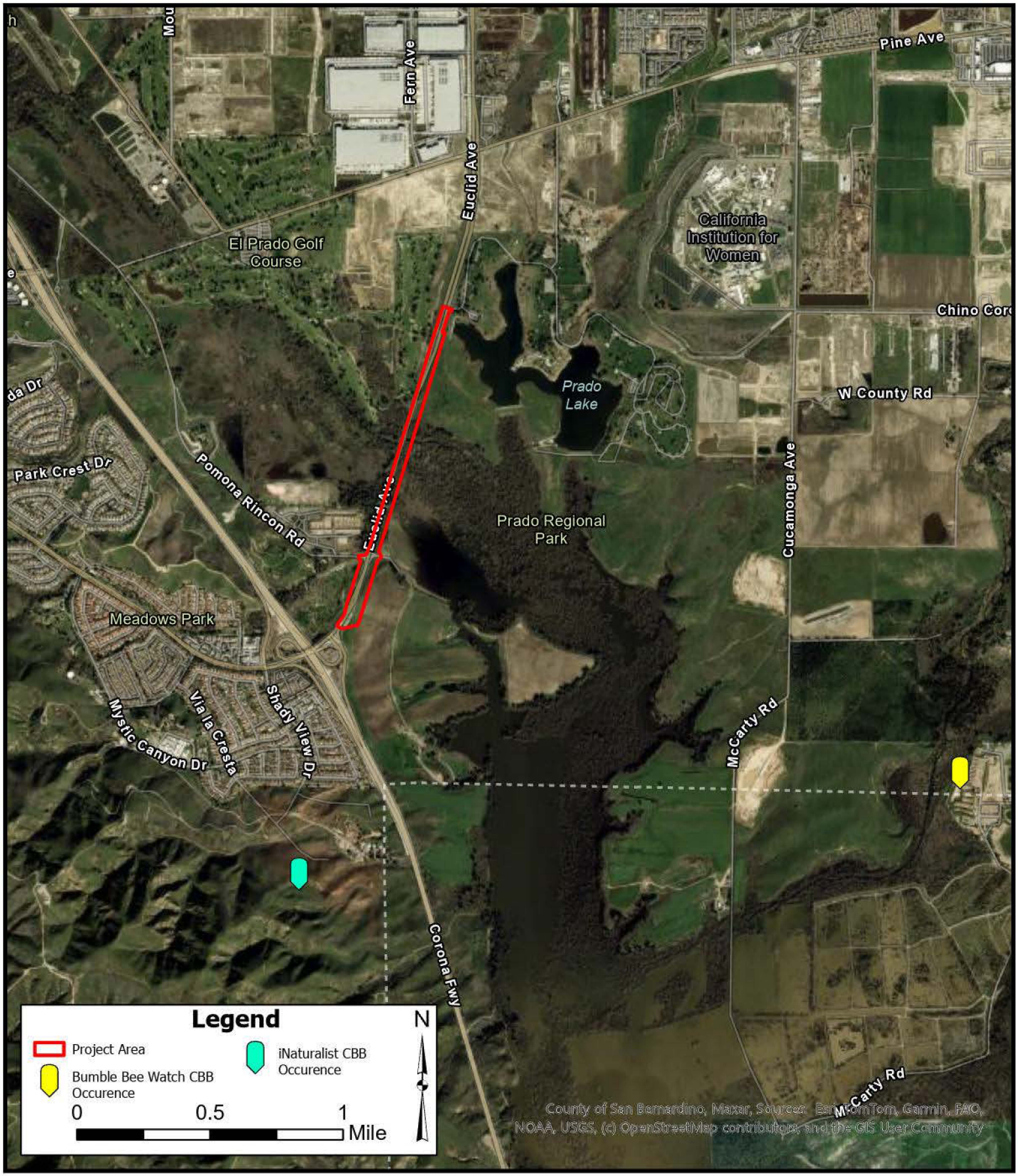
Figure 1



Euclid Avenue Bridge Project

Site Vicinity Map

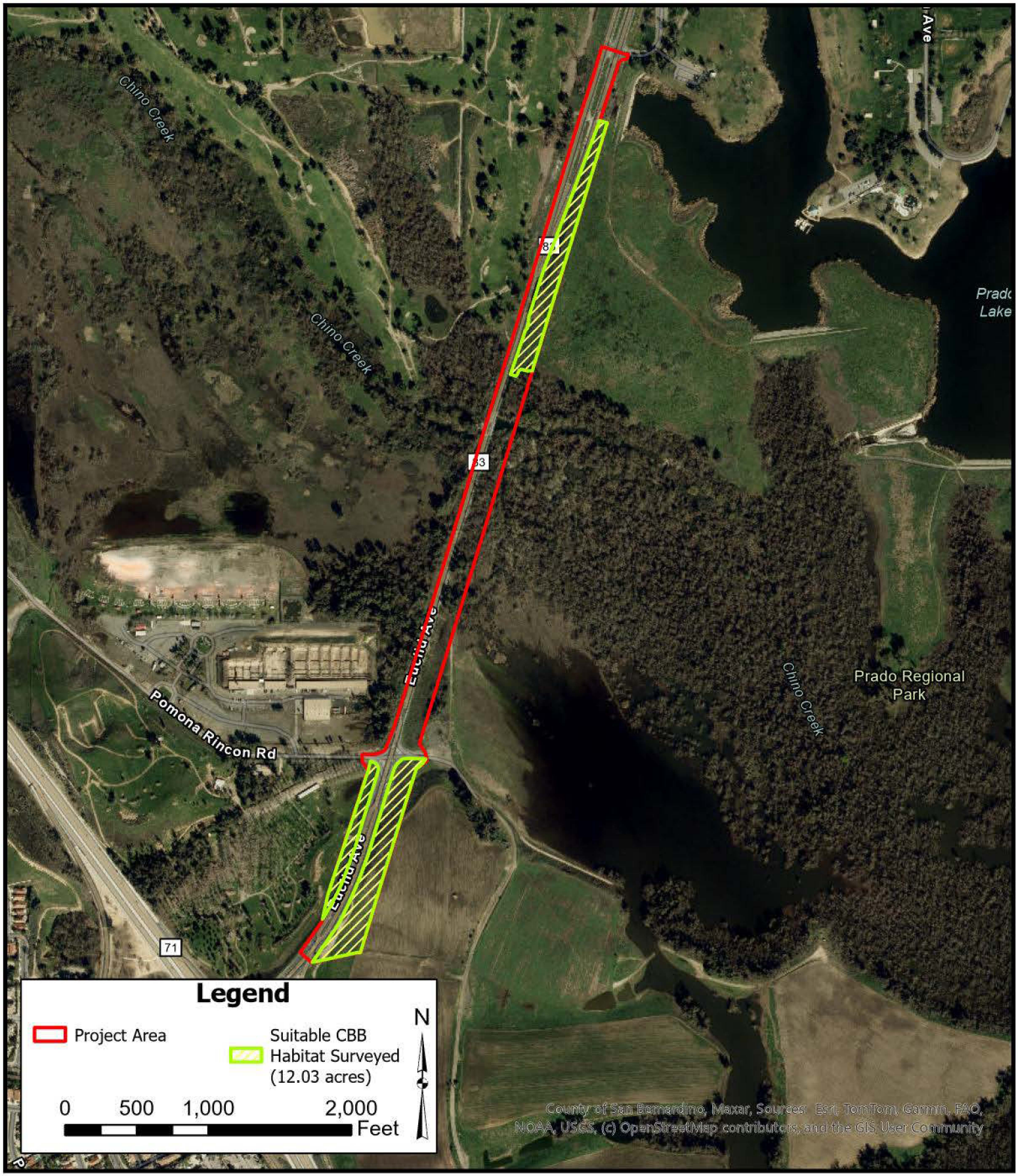
Figure 2



Euclid Avenue Bridge Project

Crotch's Bumble Bee Documented Occurrences Map

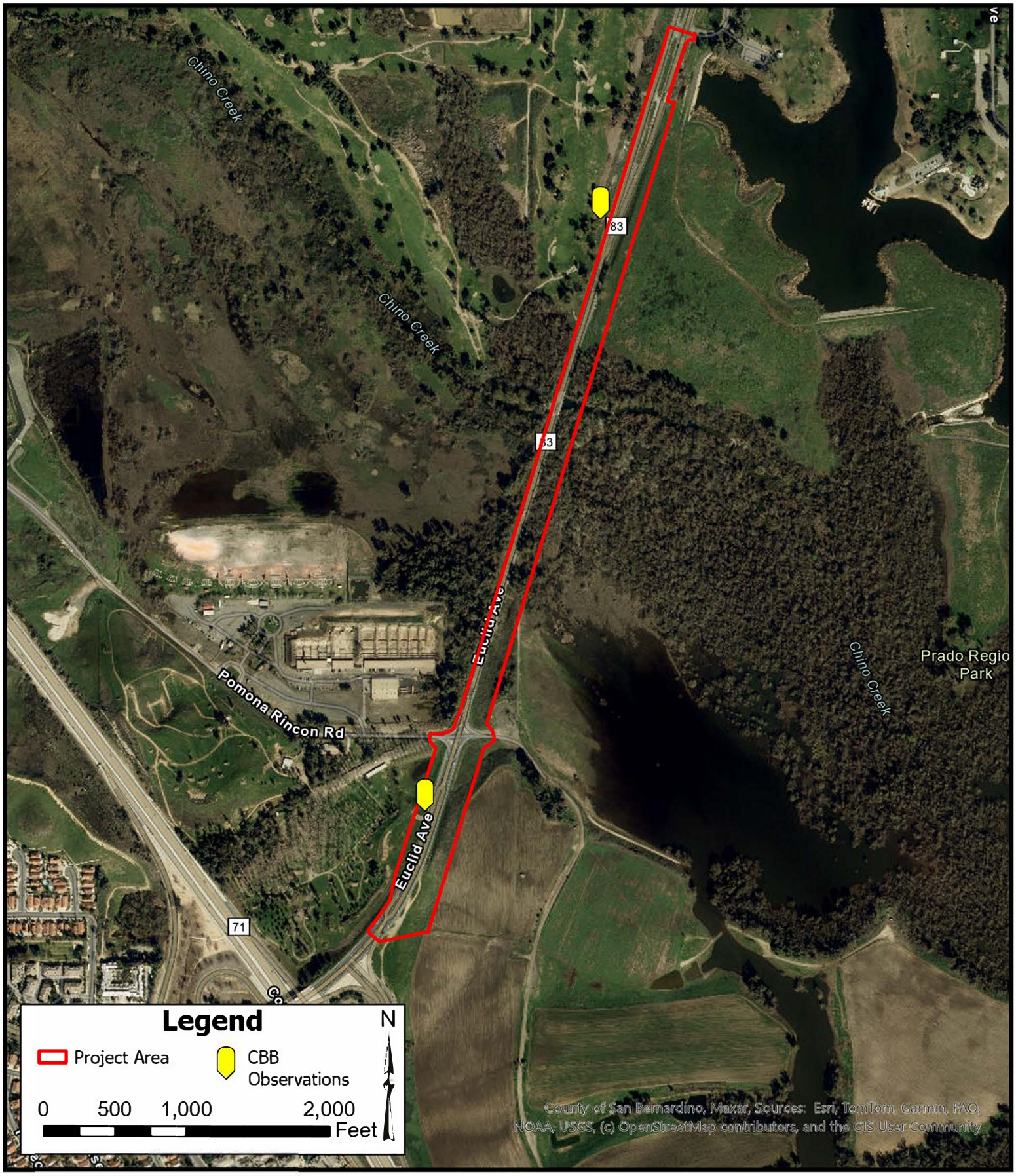
Figure 3



Euclid Avenue Bridge Project

Crotch's Bumble Bee Survey Area Map

Figure 4



Euclid Avenue Bridge Project

Crotch's Bumble Bee Observations Map

Figure 5

Attachment 2.

Flora and Fauna Compendium

Flora/Fauna Compendium

The following list documents observed plant species identified during the CBB focused surveys. Floristic resources observed to be in bloom during the focused surveys are denoted with an asterisk. Other species may have been overlooked or were not detected due to the species' growing season.

Flora

Type	Family	Scientific Name	Common Name
Flora:	Native Species		
	Dicots		
	Adoxaceae		
	Anacardiaceae		
	Apiaceae	*Oenanthe sarmentosa*	Water Parsley
	Apocynaceae	*Asclepias fascicularis*	Narrowleaf Milkweed*
	Asparagaceae		
	Asteraceae	*Artemisia californica* *Ambrosia psilostachya* *Erigeron canadensis* *Helianthbrisus annuus* *Heterotheca grandiflora* *Lasthenia gracilis* *Microseris douglasii*	California Sagebrush Western Ragweed Horseweed Common Sunflower Telegraph Weed* Needle Goldfields Douglas' Silverpuffs
	Boranginaceae	*Amsinckia menziesii var. intermedia* *Amsinckia menziesii*	Common Fiddleneck Menzies' Fiddleneck
	Cactaceae		
	Convolvulaceae		
	Euphorbiaceae		
	Fabaceae	*Lupinus bicolor* *Lupinus microcarpus* *Lupinus spp.* *Lupinus succulentus*	Annual lupine Chick Lupine Lupine Arroyo Lupine*
	Fagaceae		
	Heliotropiaceae	*Heliotropium curassavicum*	Salt Heliotrope
	Malvaceae	*Malvella leprosa*	Alkali Mallow
	Microseris	*Microseris douglasii*	Douglas' silverpuffs

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Oleaceae	*Fraxinus velutina*	Velvet Ash
	Papaveraceae		
	Phrymaceae	*Diplacus brevipes*	Wide-Mouth Monkeyflower*
	Platanaceae	*Platanus racemosa*	California Sycamore
	Polygonaceae	*Eriogonum fasciculatum* *Persicaria lapathifolia* *Rumex salicifolius* *Rumex violascens*	California Buckwheat Common Knotweed* Willow-leaved Dock Mexican Dock
	Rosaceae	*Rubus ursinus*	California Blackberry
	Salicaceae	*Populus deltoides* *Salix gooddingii* *Salix niagra*	Eastern Cottonwood Goodding's black willow Black Willow
	Sapindaceae	*Acer negundo*	Box Elder
	Solanaceae	*Datura Wrightii*	Jimsonweed*
	Urticaceae	*Urtica dioica ssp. gracilis* *Urtica dioica ssp. Holosericea*	Stinging Nettle Giant Creek Nettle
	Monocots		
	Cyperaceae	*Cyperus eragrostis*	Tall Flatsedge
	Poaceae	*Alopecurus saccatus* *Phalaris aquatica*	Pacific Foxtail Harding Grass
	Typhaceae	*Typha latifolia*	Broadlead Cattail
	Non-Native Species		
	Dicots		
	Amaranthaceae	*Atriplex semibaccata*	Australian Saltbush*
	Apiaceae	*Conium maculatum* *Foeniculum vulgare* *Petroselinum crispum*	Poison Hemlock* Wild Fennel Flat leafed Parsley
	Arecaceae	*Phoenix canariensis*	Canary Island Date Palm
	Asteraceae	*Carduus pycnocephalus* *Carduus tenuiflorus* *Centaurea melitensis* *Centaurea solstitalis* *Cirsium vulgare* *Helminthoteca echioides* *Lactuca serriola*	Italian Thistle* Slender Thistle* Yellow Star-Thistle* Maltese Star-Thistle* Bull Thistle* Bristly Ox-Tongue* Prickly Lettuce

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
		Pulicaria paludosa	Spanish Fleabane*
		Silybum marianum	Milk Thistle*
		Sonchus asper	Spiny Sowthistle*
		Taraxacum officinale	Dandelion
		Verbesina encelioides	Golden Crownbeard*
	Brassicaceae	*Brassica nigra*	Black Mustard
		Hirschfeldia incana	Short-pod Mustard*
		Lepidium latifolium	Broadleaved Pepperweed*
		Raphanus raphanistrum	Jointed Charlock
		Raphanus sativus	Wild Radish*
	Cannabaceae	*Ricinus communis*	Castor Bean
	Chenopodiaceae	*Salsola tragus*	Prickly Russian Thistle
	Convolvulaceae	*Convolvulus arvensis*	Field Bindweed*
	Fabaceae	*Medicago polymorpha*	California Burclover
		Medicago sativa	Alfalfa*
		Parkinsonia aculeata	Mexican Palos Verde
	Geraniaceae	*Erodium cicutarium*	Common Stork's Bill*
		Erodium spp.	Erodium
	Lamiaceae	*Marrubium vulgare*	White Horehound*
		Stachys byzantina	Lamb's Ear
	Malvaceae	*Malva parviflora*	Cheeseweed
	Myrsinaceae		
	Myrtaceae	*Eucalyptus camaldulensis*	Red Gum
	Onagraceae	*Ludwigia peploides*	Floating Primrose-Willow*
	Plantaginaceae	*Plantago major*	Common Plantain*
		Veronica anagallis-aquatica	Blue Water-Speedwell*
	Poaceae	*Arundo donax*	Arundo
		Polypogon monspeliensis	Rabbitsfoot Grass
	Polygonaceae	*Rumex crispus*	Curly Dock
	Primulaceae	*Lysimachia arvensis*	Scarlet Pimpernel*
	Salicaceae		

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Sapindaceae	*Koelreuteria paniculata*	Golden Raintree
	Solanaceae	*Nicotiana glauca* *Solanum crispum*	Tree Tobacco* Chilean Nightshade
	Tamaricaceae	*Tamarix ramosissima*	Tamarisk
	Urticaceae	*Urtica urens*	Annual Nettle
	Monocots		
	Poaceae	*Avena fatua* *Bromus arvensis* *Bromus diandrus* *Bromus madritensis ssp. Rubens* *Hordeum murinum* *Lolium perenne* *Phalaris aquatica* *Phalaris canariensis* *Phalaris minor* *Sorghum bicolor* *Sorghum halepense*	Wild Oat Field Brome Ripgut Brome Red Brome Foxtail Barley Perennial Ryegrass Harding Grass Annual Canary Grass Little Seed Canarygrass Sorghum Johnson Grass
	Typhaceae		

Flora/Fauna Compendium

The following list documents observed plant species identified during the CBB focused surveys. Floristic resources observed to be in bloom during the focused surveys are denoted with an asterisk. Other species may have been overlooked or were not detected due to the species' growing season.

Fauna

Type	Family	Scientific Name	Common Name
	Amphibian Species		
	Ranidae	*Lithobates catesbeianus*	American bullfrog
Fauna:	Avian Species		
	Accipitridae	*Accipter cooperii* *Buteo jamaicensis* *Elanus leucurus*	Cooper's Hawk Red-tailed Hawk White-Tailed Kite
	Aegithalidae	*Psaltriparus minimus*	Bushtit
	Anatidae	*Anas platyrhynchos* *Fulica americana* *Oxyura jamaicensis*	Mallard American Coot Ruddy Duck
	Apodidae	*Aeronautes saxatalis*	White-Throated Swift
	Ardeidae	*Ardea herodias* *Nycticorax nycticorax*	Great Blue Heron Black-Crowned Night Heron
	Cardinalidae	*Passerina amoena* *Passerina caerulea*	Lazuli Bunting Blue Grosbeak
	Cathartidae	*Cathartes aura*	Turkey Vulture
	Charadriidae	*Charadrius vociferus*	Killdeer
	Columbidae	*Zenaida macroura* *Streptopelia decaocto*	Mourning Dove Eurasian Collared Dove
	Corvidae	*Corvus brachyrhynchos* *Corvus corax*	American Crow Common Raven
	Emberizidae		
	Estrildidae		
	Falconidae		
	Fringillidae	*Haemorhous mexicanus* *Spinus lawrencei* *Spinus psaltria* *Spinus tristis*	House Finch Lawrence Goldfinch Lesser Goldfinch American Goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	Cliff Swallow
	Icteridae	*Agelaius phoeniceus* *Icterus bullockii* *Icterus cucullatus* *Molothrus ater* *Quiscalus mexicanus*	Red-Winged Blackbird Bullock's Oriole Hooded Oriole Brown-Headed Cowbird Great-Tailed Grackle
	Mimidae		
	Paridae		
	Parulidae	*Geothlypis trichas* *Icteria virens* *Setophaga coronata* *Setophaga petechia*	Common Yellowthroat Yellow-Breasted Chat Yellow-Rumped warbler

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
		Setophaga townsendi	Yellow Warbler Townsend's Warbler
	Passerellidae	*Melospiza melodia* *Melozone crissalis* *Pipilo maculatus* *Zonotrichia leucophrys*	Song Sparrow California Towhee Spotted Towhee White-crowned Sparrow
	Passeridae	*Passer domersticus*	House Sparrow
	Phalacrocoracidae	*Nannopterum auritum*	Double-Crested Cormorant
	Picidae	*Colaptes auratus* *Melanerpes formicivorus* *Picoides nuttallii*	Northern Flicker Acorn Woodpecker Nuttall's Woodpecker
	Podicipedidae	*Aechmophorus occidentalis*	Western Grebe
	Rallidae	*Fulica americana*	American Coot
	Sturnidae	*Sturnus vulgaris*	European Starling
	Trochilidae	*Calypte anna* *Selasphorus sasin*	Anna's grosbird Allen's Hummingbird
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Turdidae	*Sialia mexicana* *Turdus migratorius*	Western Bluebird American Robin
	Tyrannidae	*Pyrocephalus obscurus* *Sayornis nigricans* *Tyrannus verticalis*	Vermilion Flycatcher Black Phoebe Western Kingbird
	Tytonidae		
	Vireonidae	*Vireo bellii pusillus* *Vireo huttoni*	Least Bell's Vireo Hutton's Vireo
	Bivalvia Species		
	Crustacean Species		
	Fish Species		
	Insect Species		
	Apidae	*Apis* *Bombus Crotchii* *Bombus pensylvanicus* *Bombus vosnesenskii* *Xylocopa*	Western Honey Bee Crotch's Bumblebee American Bumblebee Yellow-Faced Bumblebee Carpenter Bee
	Chrysomelidae	*Chrysochus cobaltinus* *Paropsis atomaria*	Blue Milkweed Beetle Dotted Paropsine Leaf Beetle
	Cicadae	*Okanagana sp.*	Cicada Spp
	Ixodidae	*Dermacentor variabilis*	American Dog Tick
	Nymphalidae	*Nymphalis antiopa*	Mourning Cloak Butterfly
	Mammalian Species		
	Leporidae	*Sylvilagus audubonii*	Desert cottontail
	Sciuridae	*Otospermophilus beecheyi*	California Ground Squirrel

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Reptilian Species		
	Phrynosomatidae	*Sceloporus occidentalis*	Western Fence Lizard

Attachment 3.

Site Photos



Photo 1: Showing northwest corner of site with potential pollination areas and flowering.



Photo 2: Showing overview of Mexican palos verdes area with high bee activity and CBB observations.



Photo 3: Showing bee foraging area on the southeast corner of Pomona Rincon Road and Euclid Avenue.



Photo 4: Showing potential foraging area across the lake near Euclid Ave in Prado Regional Park.

Euclid Avenue Bridge Project

Site Photos

Euclid Avenue Bridge Project

City of Chino, San Bernardino County, California

Focused Sensitive Plant Survey Report

Prepared for:

Biggs Cardosa Associates, Inc.
500 S. Main Street, Suite 1200
Orange, CA 92868

On behalf of:

City of Chino Public Works Department
13220 Central Avenue
Chino, CA 91710

Prepared by:

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August 2025

Introduction

This report contains the findings of Ruth Villalobos and Associates, Inc. (RVA) focused sensitive plant surveys conducted during the 2025 blooming season for the Euclid Avenue Bridge Project (Project) located in the City of Chino, San Bernardino County, California. RVA conducted five (5) separate focused plant surveys to coincide within the flowering periods of those special-status plant species known to occur within the general vicinity of the project site. The sensitive plant surveys were conducted from April through the end August on April 24, May 20, June 18, July 15, and August 20, 2025 to coincide with known flowering periods of special-status plant species known to occur in the vicinity of the project site in accordance with the CDFW Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities (CDFW 2018) as well as the United States Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 1996). Specifically, the surveys specifically focused on the presence/absence of federally and state listed plant species that are documented to occur in the vicinity of the project site. The findings of the surveys will be used to establish constraints, if any, to development including measures to avoid impacts to any federally and state listed plant species and California Native Plant Society (CNPS) *California Rare Plant Rank* listed plant species.

Project Location

The project site is generally located along the portion of Euclid Avenue within the Prado Basin and crosses Chino Creek. It is located within the northern portion of the Prado Flood Control basin in San Bernardino County. (See Figure 1- Regional Vicinity Map). The site is located within Section 6, Township 3 South, Range 7 West. The Project's northern limit occurs approximately 0.5-mile southwest of the Euclid Avenue/Pine Avenue intersection (Latitude N 33° 56' 51.75"; Longitude W 117° 39' 05.11"), and the southern limit of the Project occurs approximately 0.2-mile northeast of the Euclid Avenue/State Route 71 interchange (Latitude N 33° 55' 56.45", Longitude W 117° 39' 26.82'), all entirely within the public right-of-way (See Figure 2 – Site Vicinity Map).

Methodology

RVA conducted a thorough literature review and records search to determine which special-status plant species have the potential to occur on or within the general vicinity of the Project site. Resources used in the literature review included: The California Department of Fish and Wildlife (CDFW) database California Natural Diversity Database (CNDDB), and the CDFW Bio-geographic Information occurrence System (BIOS). Further, information on the specific plant species identified during the database and records was gathered from Calflora, CNPS, and Jepsons eflora. All findings of the literature review of the project site served as a basis of information for field surveys conducted to collect empirical data on site conditions and species present.

In addition to the literature review, five (5) focused surveys were conducted to coincide with the flowering periods of special-status plant species known to occur within the general vicinity, focusing on the presence/absence of Braunton's milk-vetch (Astragalus brauntonii), Santa Ana River woollystar (Eriastrum densifolium ssp. Sanctorum), Chaparral sand-verbena (*Abronia villosa var. aurita*), Coulter's saltbush (*Atriplex coulteri*), Intermediate mariposa-lily (*Calochortus weedii var. intermedius*), Lucky morning-glory (*Calystegia felix*), Smooth tarplant (*Centromadia pungens ssp. laevis*), Many-stemmed dudleya (*Dudleya multicaulis*), Robinson's pepper-grass (*Lepidium virginicum var. robinsonii*),

Jokerst's Monardella (*Monardella australis ssp. jokerstii*), White rabbit-tobacco (*Pseudognaphalium leucocephalum*), Salt spring checkerbloom (*Sidalcea neomexicana*), and San Bernardino aster (*Symphyotrichum defoliatum*). The bloom period for each of the species surveyed is listed in the Table 1 – Sensitive *Plant Species and Bloom Periods*, below.

Table 1 – Sensitive Plant Species and Bloom Periods

Species	Bloom/Survey Period
Braunton's milk-vetch (*Astragalus brauntonii*)	March- August
Santa Ana River woollystar (*Eriastrum densifolium ssp. Sanctorum*)	May- September
Chaparral sand-verbena (*Abronia villosa var. aurita*)	March- August
Coulter's saltbush (*Atriplex coulteri*)	March- October
Many-stemmed dudleya (*Dudleya multicaulis*)	May-June
Intermediate mariposa-lily (*Calochortus weedii var. intermedius*)	May- July
Lucky morning-glory (*Calystegia felix*)	April- June
White rabbit-tobacco (*Pseudognaphalium leucocephalum*)	August- November
Robinson's pepper-grass (*Lepidium virginicum var. robinsonii*)	January- July
Jokerst's Monardella (*Monardella australis ssp. jokerstii)*	July- September
Salt spring checkerbloom (*Sidalcea neomexicana*)	March- June
Smooth tarplant (*Centromadia pungens ssp. laevis*)	April-November
San Bernardino aster (*Symphyotrichum defoliatum*)	July to November

All information and data collected during the literature review and focused surveys was recorded and documented by multiple means to accurately describe site conditions to the best possible extent. A detailed methodology of each phase of the focused survey, literature review and the focused plant field surveys, is described below.

Literature Review

Prior to conducting the focused surveys, a literature review and records search was conducted. Previously recorded occurrences of special-status plant species and their proximity to the project site were determined through a query of the CNDDB Rarefind 5, the Quickview Tool in BIOS, and the CNPS Electronic

Inventory of Rare and Endangered Vascular Plants of California. USFWS online mapping application was also used to determine the closest critical habitat.

Previously prepared reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions. The previously prepared reports and survey results offer a valuable insight into how the project site conditions have progressed over time. Adding context to the project sites baseline condition over periods of time that include disturbance and growth that have occurred on the site. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-sensitive biological resources, as well as the following resources:

- Botanical Survey Guidelines (CNPS 2001);
- Calflora;
- CDFW CNDDB and the BIOS GIS inventory map;
- CNPS Rare Plant Inventory;
- Google Earth Pro historic aerial imagery (2002 - 2024);
- Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996);
- Jepsons eFlora database;
- Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Communities and Natural Communities (CDFW 2009);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS);
- USFWS Critical Habitat designations for Threatened and Endangered Plant Species;
- Web Soil Survey;

Focused Plant Survey

Focused plant surveys methods were tailored to the findings of the literature review to best capture the species targeted in the focused survey as well as site conditions. Surveys were conducted at the time of year when the targeted individual plant species are both evident and identifiable. Five (5) site visits were spaced throughout the bloom seasons of the individual species to accurately determine what plant species exist on-site and capture the floristic diversity at a level necessary to determine if special-status plants are present. The timing and number of surveys was determined based on geographic location, the natural communities present, and the weather patterns of the region. Based on the special-status plant species known to occur within the general vicinity and the suitability of the on-site habitat to support those species, RVA biologists conducted the special-status plant surveys on April 24, May 20, June 18, July 15, August 20, 2025.

All areas that may be directly and indirectly impacted by the proposed project were surveyed on foot. Linear transects were walked throughout the project site and spaced at 10-meter intervals to ensure maximum visual coverage and increase the likelihood of detecting special-status plant species known to occur within the general vicinity of the project site. All plant species observed during the surveys were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed on-site and identified in the office using taxonomical guides. A handheld geographic positioning systems (GPS) device, recorded in NAD 1983 State Plane California,

and standard field data sheets were used to record all populations of special-status plant species, if observed.

Plant communities were mapped using USGS 7.5-minute topographic maps, aerial photography, and GPS enabled GIS software. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2010) and Holland (1986), delineated on an aerial photograph, and confirmed during the site survey. Once boundaries were confirmed, they were then digitized into GIS ArcGIS. The ArcGIS application was used to approximate the area of each plant community in square meters (m^2). Taxonomic nomenclature used in this study follows the 2012 Jepson Manual. Refer to Attachment 2, for a complete list of plant species observed during the focused survey.

Sensitive Plant Species Backgrounds

The CNDDB Rarefind 5, the Quickview Tool in BIOS, and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant species in the Newhall USGS 7.5-minute quadrangle. The literature search identified thirteen (13) special-status plant species as having the potential to occur within the Newhall quadrangle. Special-status plant species identified during the literature review are presented in Attachment 3. The following sections provide a detailed assessment of the plant species that were surveyed for as well as the plants environmental needs to see if site conditions would support the species.

Braunton's Milk-Vetch (*Astragalus brauntonii)*

Braunton's milk-vetch has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Fabaceae family and blooms from March to August. This species has small, dull lilac flowers and typically appears following a chaparral fire or other disturbances. It occurs exclusively in chaparral habitats at elevations between 295 to 4790 feet (ft.) above mean sea level (AMSL). Braunton's milk-vetch is known to occur in the counties of Orange, Los Angeles, and Ventura. The nearest recorded occurrence of Braunton's milk-vetch on CNDDB using the BIOS GIS Viewer is approximately 4 miles to the southwest of the project site near Yorba Linda.

Santa Ana River Woollystar (*Eriastrum densifolium ssp. Sanctorum*)

Santa Ana River Woollystar has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Polemoniaceae family and blooms from May to September. This species has bright blue flowers and usually occurs in the sandy river floodplain of the Santa Ana River. Habitats commonly associated with this species are chaparral and coastal scrub at elevations between 755 and 7515ft. AMLS. Santa Ana River woollystar is known to occur in the counties of Riverside and San Bernardino. The nearest recorded occurrence of Santa Ana Woollystar on CNDDB using the BIOS GIS viewer is approximately 7 miles to the east of the project site near the City of Norco.

Chaparral Sand-Verbena (*Abronia villosa var. aurita*)

Chaparral sand-verbena has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Nyctaginaceae family and blooms from March to August. This species has very small pink flowers and occurs at elevations between 250 to 5249 ft. AMSL. Habitat commonly associated with this species area shrubland, chaparral, coastal-sage scrub and sandy soils in creosote bush scrub. The species is known to occur in the counties of Orange, Riverside, and San Bernardino. The nearest occurrence of Chaparral sand-verbena in Calflora occurs 7 miles to the southeast of the project site near Corona.

Coulter's Saltbush (*Atriplex coulteri*)

Coulter's saltbush has a CNPS Rare Plant Ranking of 1B.2, the plant species is in the Amaranthaceae family and blooms from March to October. This species has reddish, green stems and gray scaly leaves. It is typically found in saline and alkaline soils. Habitats commonly associated with this species are dunes, coastal bluff, coastal sage-scrub, valley grassland and occasionally occurs in wetlands at elevations between 10 to 1510 ft. AMSL. Coulter's saltbush is known to occur in the counties of Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, and San Diego. Both the Calflora and the CNDDB databases returned no documented findings of little Coulter's saltbush in the Perris quad.

Many-Stemmed Dudleya (*Dudleya multicaulis*)

Many-stemmed dudleya has a CNPS Rare Plant Ranking of 1B.2, the plant species is in the Crassulaceae family and blooms from April to July. This species has a small yellow flower and usually occurs in clay soil types at elevations between 50 to 2590 ft. AMSL. Habitats that are commonly associated with the species include coastal sage scrub, chaparral, and grassland. Many-stemmed dudleya is known to occur in the counties of Los Angeles, Orange, Riverside, San Bernardino, and San Diego. The nearest occurrence of Many-stemmed dudleya in Calflora occurs 5 miles southwest of the project site. near Yorba Linda.

Intermediate Mariposa-Lily (*Calochortus weedii var. intermedius*)

Intermediate mariposa-lily has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Calochortus family and blooms from May to July. This species has contrasting yellow flowers with contrasting purple and white shades. Habitats commonly associated with the species include open slopes, coastal scrub, valley and foothill grasslands in heavy/rocky soil and dry chaparral/grassland habitat in rock sediment at elevations between 345 to 2805 ft. AMSL. The species is known to occur in the counties of Los Angeles, Orange, Riverside and San Bernardino. The nearest occurrence of Intermediate mariposa-lily in Calflora and CNDDB using the BIOS GIS viewer occurs 2 miles west of the project site in the Chino Hill's State Park.

Lucky Morning-Glory (*Calystegia felix*)

Lucky morning-glory has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Convolvulaceae family and blooms from April to June. This species has white flowers and usually occurs within alkaline or silt loam soil types at elevations between 100 to 705 ft. AMSL. Habitats commonly associated with the species include meadows, seeps, riparian scrub, and alluvial slopes in wetland and marshy places. The species is known to occur in the counties of Los Angeles, Riverside, and San Bernardino, however the species is almost completely limited to western Riverside County. Both the Calflora and the CNDDB databases returned with multiple documented findings of Lucky morning-glory within 2 miles of the project site.

Robinson's Pepper-Grass (*Lepidium virginicum var. robinsonii*)

Robinson's pepper-grass has a CNPS Rare Plant Ranking of 4.3, the plant species is in the Brassicaceae family and blooms from January to July. This species has very tiny white flowers and usually occurs at elevations between 5 to 2905 ft. AMSL. Habitats commonly associated with the species include chaparral, coastal scrub, dry disturbed areas, riverbanks, meadows, fields, pastures, and cliffs . The species is known to occur in the counties of Los Angeles, Riverside, and San Bernadino. The nearest occurrence of Robinson's pepper-grass in Calflora occurs 4 miles northeast of the project site in Eastvale

Jokerst's Monardella (*Monardella australis ssp. jokerstii*)

Jokerst's Monardella has a CNPS Rare Plant Ranking of 1B.1, the plant species is in the Lamiaceae family and blooms from July to September. This species has yellow flowers and is currently limited to the Los Angeles National Forest at elevations of 0-6890 ft. Habitats commonly associated with the species include chaparral, lower montane coniferous forest, alluvial terraces, scree, slopes, talus, and washes. The nearest

occurrence of Jokerst's Monardella documented on CNDDB using the BIOS GIS viewer occurs 0.3 miles to the south of the project site.

White Rabbit-Tobacco (*Pseudognaphalium leucocephalum*)

White rabbit- tobacco has a CNPS Rare Plant Ranking of 2B.2, the species is in the Asteraceae family and blooms from August to November. This species has very small white flowers and often occurs at elevations between 0 to 6890 ft. AMSL. Habitats commonly associated with the species include chaparral, coastal scrub, cismontane woodland, riparian woodland, gravelly or sandy soils, dry stream bottoms, and canyon bottoms. White rabbit-tobacco is known to occur in the counties of Los Angeles, Orange, Riverside, San Diego and Ventura. The nearest recorded occurrence of White rabbit- tobacco documented on Calflora occurs 5 miles to the southwest of the project site near Yorba Linda.

Salt Spring Checkerbloom (*Sidalcea neomexicana*)

Salt spring checkerbloom has a CNPS Rare Plant Ranking of 2B.2, the plant species is in the Malvaceae family and blooms between March to June. This species has a very small pinkish purple flower and occurs in alkali soils at elevations between 50 to 5020 ft. AMSL. Habitats commonly associated with the species include chaparral, coastal scrub, creosote bush scrub, alkali sinks, yellow pine forest and wetland-riparian areas. Salt spring checkerbloom is known to occur in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Calflora's database has two recorded occurrence of San Jacinto Valley crownscale approximately 2-3 miles from the project site near Chino Hills.

Smooth Tarplant (*Centromadia pungens ssp. laevis*)

Smooth tarplant has a CNPS Rare Plant Ranking of 1B.1, the plant species in the Asteraceae family and blooms from April to September. This species has a yellow flower and occurs in sandy loam soil types at elevations between 0 to 2000 ft. AMSL. This species is equally likely to occur in wetlands and non-wetland environments, habitats commonly associated with this species are riparian, meadows, and playas. Smooth tarplant is known to occur in the counties of Los Angeles, San Bernardino, Orange, Riverside, and San Diego. Both the Calflora and the CNDDB databases returned with a few occurrences about 8 miles away near Jurupa Valley.

San Bernardino Aster (*Symphyotrichum defoliatum*)

San Bernardino aster has a CNPS Rare Plant Ranking 1B.2, the plant species in the Asteraceae family and blooms between July and November. This species has a white flower with purple tips and occurs at elevations between 5 to 6695 ft. AMSL. This species is exclusive to wetlands environments, habitats commonly associated with this species are freshwater-marshes, freshwater wetlands, coastal sage scrub and southern oak woodland. San Bernardino aster is known to occur in the counties of Los Angeles, Kern, Orange, Riverside, San Bernadino, San Diego, and Santa Barbara. The nearest recorded occurrence of San Bernardino aster on Calflora is approximately 3 miles northeast of the project site. The nearest recorded occurrence of San Bernardino aster on CNDDB using the BIOS GIS viewer occurs 3 miles to the north of the project site.

Results

Existing Site Conditions

The 20.50-acre proposed Project site currently sits along Euclid Avenue in Chino, California within the Prado Basin which encompasses Chino Creek. The site consists of annual grassland on the northern and southern ends and consists of a dense riparian canopy in the center of the site. Chino Creek runs through the site and flows into the Prado Basin. This section of Euclid Avenue is subject to flooding and road

closures during storm events. The project is bounded by El Pardo Golf Course , Oranco Gun Range, Prado Regional Park, and farmland. The majority of the site predominantly consisted of lupine (*lupinus*), Willow (*salix*) , shortpod mustard (*Hirschfeldia*), nettle (*Urtica*), common fiddleneck (*Amsinckia intermedi*). Surface elevations within the project site range from approximately 508 to 560 feet above mean sea level.

Four soil types were identified using the Department of Agriculture and the Natural Resource Conservation Service Web Soil Survey website. The soils on this site consist of Chino silt loam, Chualar clay loam (2 to 9 percent), Chualar clay loam (9 to 15 percent), and Grangeville fine sandy loam. The soil type of Chino silt loam makes up approximately 29 percent of the soils with the majority of the soil in the southern part of the site. The soil type of Chualar clay loam, 2 to 9 percent slope, makes up approximately 25 percent of the soils with the majority of the soil in the northern and very southern edge of the site. The soil type of Chualar clay loam, 9 to 15 percent slopes, makes up approximately 22 percent of soils with the majority in small parts in the northern and southern ends of the site and a larger part in the center of the site. The soil type of Grangeville fine sandy loam makes up approximately 23 percent of the soils with majority in the very center of the site.

Average precipitation levels withing the City of Chino are approximately 13 inches of rain per year. This year's precipitation levels (January 2025 to August 2025) is about 5 inches and on track with the average precipitation levels for the year.

A review of historical aerial photographs of the project site (1938 to 2025) shows the site conditions have been impacted by anthropogenic and biotic disturbances. In the 1930s, there was a dam that impacted flow pattern through Prado Basin. By the 1940s, that dam was removed and flows returned to normal conditions. During this time period, the first road in this section of the creek was constructed; it later became Euclid Avenue. From 1950 to the present, anthropogenic disturbances increased such as development and farmland in formally wet areas of the basin. Despite these changes, the main flow of the creek remains intact and continues to function as a part of the Santa Ana Watershed. Additionally, the aerial photographs provide evidence that as the project site was subject to these anthropogenic disturbances, additional biological disturbances such as the introduction of non-native species, created further pressures for the native species onsite.

Focused Survey Results

No rare plants were observed within the Project area, during the five focused sensitive plant surveys. All plant species observed within the Project area were common species without sensitivity status. However, one sensitive vegetation community does occur within the Project area, comprised of the southern cottonwood-willow riparian forest. A complete list of plant and wildlife species observed during the surveys is provided in Attachment 2 – Flora and Fauna Compendium.

Conclusion and Recommendation

No Federal/State listed or CNPS rare plant rank floristic species were observed and documented within the proposed Project footprint. Due to the historic anthropogenic and biological disturbances such as development, regular mowing and farmland that have occurred within the Project site, it is unlikely that any rare plants occur in the area. For these reasons the Project as proposed would have less than significant impacts to sensitive plant species.

Certification

Date: August 5, 2025

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this City of Chino Hills required Focused Sensitive Plant Survey Report to the best of my ability, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

If you have any questions or need any clarifications regarding this report, please feel free to contact me via email or at (909) 241-7433.

Sincerely,



Senior Biologist/Regulatory Specialist

Attachments:

1. Figures
2. Site Photos
3. Fauna/Flora Compendium

References

ArcGIS Pro Desktop application.

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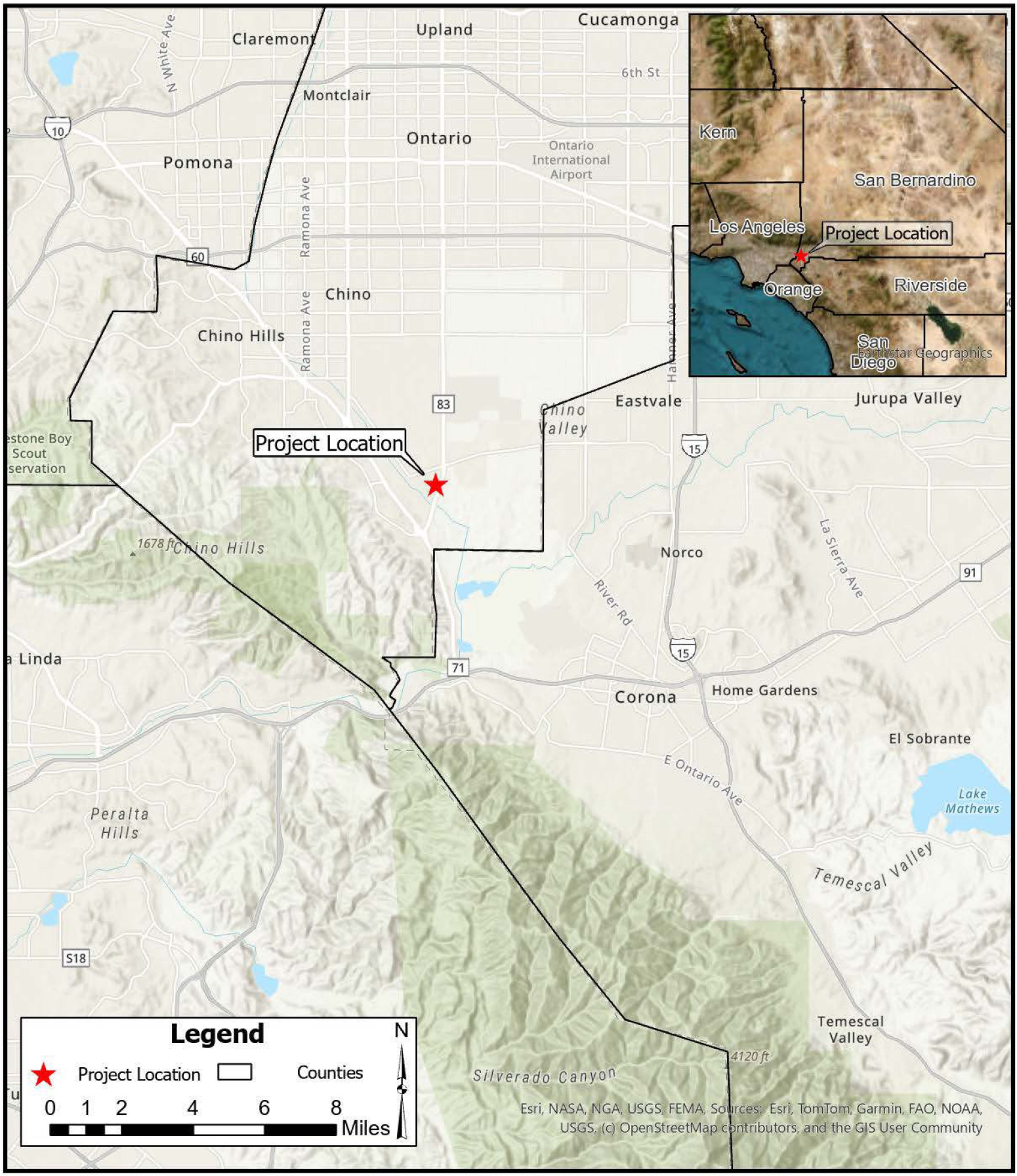
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Web Soil Survey, websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Attachment 1.

Figures



Euclid Avenue Bridge Project

Regional Map

Figure 1



Euclid Avenue Bridge Project

Site Vicinity Map

Figure 2

Attachment 2.

Site Photos

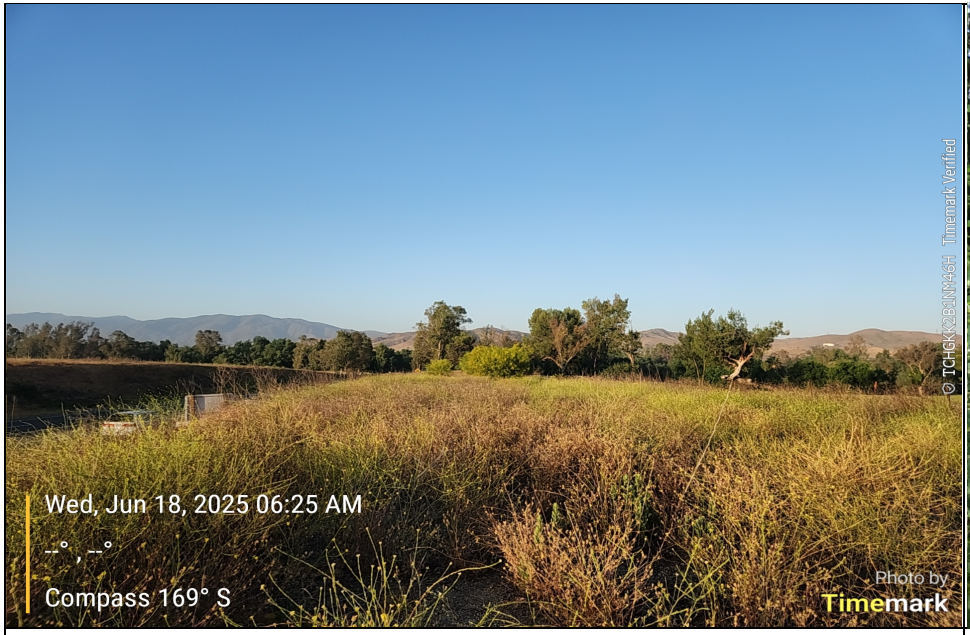


Photo 1:Showing area on the west side of the project bordering the golf course.

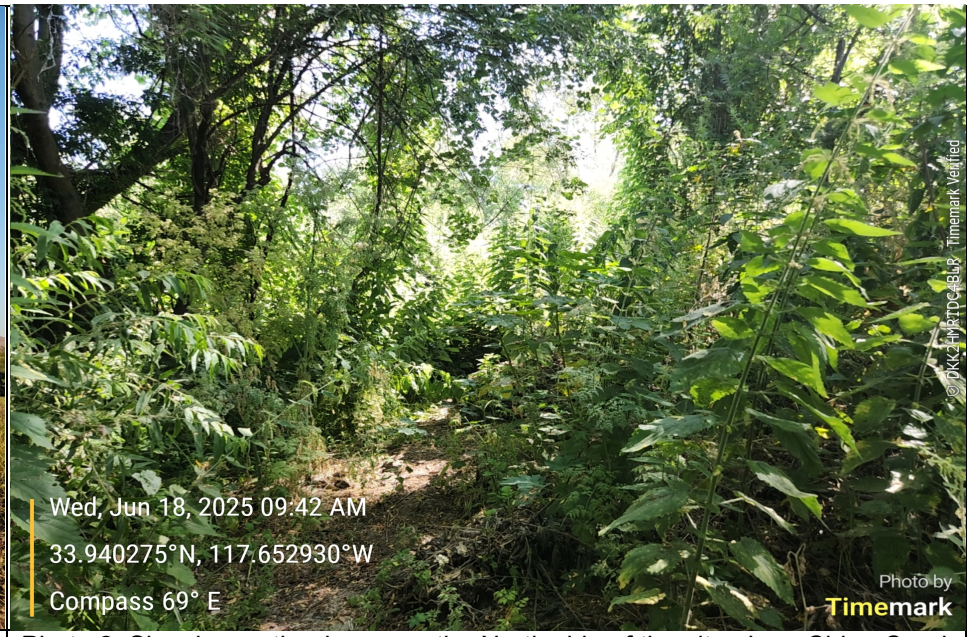


Photo 2: Showing wetland area on the North side of the site along Chino Creek.



Photo 3: Showing area on east side of project near Prado Regional Park.



Photo 4: Showing wetland area on west side of project.



Photo 5: Showing the wetland area on the east side from the road.



Photo 6: Showing the wetland area on the south side.



Photo 7: Showing the east side of of the project on the corner of Pomona Rincon Road and Euclid Avenue.



Photo 8: Showing grassland area on the southeastern end of the project.

Attachment 3.

Fauna/Flora Compendium

Flora/Fauna Compendium

RVA staff biologists Zachary Jenson, Kelsie Cook, Isabella Garcia and Jaclyn Fritz completed a biological resource assessment of the Project area and the surrounding areas on the following days April 9, April 24, May 20, June 18, and July 15, 2025. This list documents plant and animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their activity patterns, growing seasons, or limited observation time.

Flora

Type	Family	Scientific Name	Common Name
Flora:	Native Species		
	Dicots		
	Adoxaceae		
	Anacardiaceae		
	Apiaceae	*Oenanthe sarmentosa*	Water Parsley
	Apocynaceae	*Asclepias fascicularis*	Narrowleaf Milkweed
	Asparagaceae		
	Asteraceae	*Artemisia californica* *Ambrosia psilostachya* *Erigeron canadensis* *Helianthbrisus annuus* *Heterotheca grandiflora* *Lasthenia gracilis* *Microseris douglasii* *Verbesina encelioides*	California Sagebrush Western Ragweed Horseweed Common Sunflower Telegraph Weed Needle Goldfields Douglas' Silverpuffs Cowpen Daisy
	Boranginaceae	*Amsinckia menziesii var. intermedia* *Amsinckia menziesii*	Common Fiddleneck Menzies' Fiddleneck
	Cactaceae		
	Convolvulaceae		
	Euphorbiaceae		
	Fabaceae	*Lupinus bicolor* *Lupinus microcarpus* *Lupinus spp.* *Lupinus succulentus*	Annual lupine Chick Lupine Lupine Arroyo Lupine
	Fagaceae		
	Heliotropiaceae	*Heliotropium curassavicum*	Salt Heliotrope
	Malvaceae	*Malvella leprosa*	Alkali Mallow
	Microseris	*Microseris douglasii*	Douglas' silverpuffs

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Oleaceae	*Fraxinus velutina*	Velvet Ash
	Papaveraceae		
	Phrymaceae	*Diplacus brevipes*	Wide-Mouth Monkeyflower
	Platanaceae	*Platanus racemosa*	California Sycamore
	Polygonaceae	*Eriogonum fasciculatum* *Persicaria lapathifolia* *Rumex salicifolius* *Rumex violascens*	California Buckwheat Common Knotweed Willow-leaved Dock Mexican Dock
	Rosaceae	*Rubus ursinus*	California Blackberry
	Salicaceae	*Populus deltoides* *Salix gooddingii* *Salix niagra*	Eastern Cottonwood Goodding's black willow Black Willow
	Sapindaceae	*Acer negundo*	Box Elder
	Solanaceae	*Datura Wrightii*	Jimsonweed
	Urticaceae	*Urtica dioica ssp. gracilis* *Urtica dioica ssp. Holosericea*	Stinging Nettle Giant Creek Nettle
	Monocots		
	Cyperaceae	*Cyperus eragrostis*	Tall Flatsedge
	Poaceae	*Alopecurus saccatus* *Phalaris aquatica*	Pacific Foxtail Harding Grass
	Typhaceae	*Typha latifolia*	Broadlead Cattail
	Non-Native Species		
	Dicots		
	Amaranthaceae	*Atriplex semibaccata*	Australian Saltbush
	Apiaceae	*Conium maculatum* *Foeniculum vulgare* *Petroselinum crispum*	Poison Hemlock Wild Fennel Flat leafed Parsley
	Arecaceae	*Phoenix canariensis*	Canary Island Date Palm
	Asteraceae	*Carduus pycnocephalus* *Carduus tenuiflorus* *Centaurea melitensis* *Centaurea solstitalis* *Cirsium vulgare* *Helminthoteca echioides*	Italian Thistle Slender Thistle Yellow Star-Thistle Maltese Star-Thistle Bull Thistle Bristly Ox-Tongue

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
		Lactuca serriola *Pulicaria paludosa* *Silybum marianum* *Sonchus asper* *Taraxacum officinale*	Prickly Lettuce Spanish Fleabane Milk Thistle Spiny Sowthistle Dandelion
	Brassicaceae	*Brassica nigra* *Hirschfeldia incana* *Lepidium latifolium* *Raphanus raphanistrum* *Raphanus sativus*	Black Mustard Short-pod Mustard Broadleaved Pepperweed Jointed Charlock Wild Radish
	Cannabaceae	*Ricinus communis*	Castor Bean
	Chenopodiaceae	*Salsola tragus*	Prickly Russian Thistle
	Convolvulaceae	*Convolvulus arvensis*	Field Bindweed
	Fabaceae	*Medicago polymorpha* *Medicago sativa* *Parkinsonia aculeata*	California Burclover Alfalfa Mexican Palos Verde
	Geraniaceae	*Erodium cicutarium* *Erodium spp.*	Common Stork's Bill Erodium
	Lamiaceae	*Marrubium vulgare* *Stachys byzantina*	White Horehound Lamb's Ear
	Malvaceae	*Malva parviflora*	Cheeseweed
	Myrsinaceae	*Lysimachia arvensis*	Scarlet Pimpernel
	Myrtaceae	*Eucalyptus camaldulensis*	Red Gum
	Onagraceae	*Ludwigia peploides*	Floating Primrose-Willow
	Plantaginaceae	*Plantago major* *Veronica anagallis-aquatica*	Common Plantain Blue Water- Speedwell
	Poaceae	*Arundo donax* *Polypogon monspeliensis*	Arundo Rabbitsfoot Grass
	Polygonaceae	*Rumex crispus*	Curly Dock
	Primulaceae	*Lysimachia arvensis*	Scarlet Pimpernel
	Salicaceae		

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Sapindaceae	*Koelreuteria paniculata*	Golden Raintree
	Solanaceae	*Nicotiana glauca* *Solanum crispum*	Tree Tobacco Chilean nightshade
	Tamaricaceae	*Tamarix ramosissima*	Tamarisk
	Urticaceae	*Urtica urens*	Annual Nettle
	Monocots		
	Poaceae	*Avena fatua* *Bromus arvensis* *Bromus diandrus* *Bromus madritensis ssp. Rubens* *Hordeum murinum* *Lolium perenne* *Phalaris aquatica* *Phalaris canariensis* *Phalaris minor* *Sorghum bicolor* *Sorghum halepense*	Wild Oat Field Brome Ripgut Brome Red Brome Foxtail Barley Perennial Ryegrass Harding Grass Annual Canary Grass Little Seed Canarygrass Sorghum Johnson Grass
	Typhaceae		

Flora/Fauna Compendium

RVA staff biologists Isabella Garcia, Kelsie Cook, and Zachary Jenson completed a biological resource assessment of the Project area and the surrounding areas on the following days April 9, April 24, May 20 and June 18, 2025. This list documents plant and animal species observed during the site assessment. Species not included in this list may have been inadvertently omitted due to variations in their activity patterns, growing seasons, or limited observation time.

Fauna

Type	Family	Scientific Name	Common Name
	Amphibian Species		
	Ranidae	*Lithobates catesbeianus*	American bullfrog
Fauna:	Avian Species		
	Accipitridae	*Accipter cooperii* *Buteo jamaicensis* *Elanus leucurus*	Cooper's Hawk Red-tailed Hawk White-Tailed Kite
	Aegithalidae	*Psaltriparus minimus*	Bushtit
	Anatidae	*Anas platyrhynchos* *Fulica americana* *Oxyura jamaicensis*	Mallard American Coot Ruddy Duck
	Apodidae	*Aeronautes saxatalis*	White-Throated Swift
	Ardeidae	*Ardea herodias* *Nycticorax nycticorax*	Great Blue Heron Black-Crowned Night Heron
	Cardinalidae	*Passerina amoena* *Passerina caerulea*	Lazuli Bunting Blue Grosbeak
	Cathartidae	*Cathartes aura*	Turkey Vulture
	Charadriidae	*Charadrius vociferus*	Killdeer
	Columbidae	*Zenaida macroura* *Streptopelia decaocto*	Mourning Dove Eurasian Collared Dove
	Corvidae	*Corvus brachyrhynchos* *Corvus corax*	American Crow Common Raven
	Emberizidae		
	Estrildidae		
	Falconidae		
	Fringillidae	*Haemorhous mexicanus* *Spinus lawrencei* *Spinus psaltria* *Spinus tristis*	House Finch Lawrence Goldfinch Lesser Goldfinch American Goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	Cliff Swallow
	Icteridae	*Agelaius phoeniceus* *Icterus bullockii* *Icterus cucullatus* *Molothrus ater* *Quiscalus mexicanus*	Red-Winged Blackbird Bullock's Oriole Hooded Oriole Brown-Headed Cowbird Great-Tailed Grackle
	Mimidae		
	Paridae		
	Parulidae	*Geothlypis trichas* *Icteria virens* *Setophaga coronata*	Common Yellowthroat Yellow-Breasted Chat Yellow-Rumped warbler

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
		Setophaga petechia *Setophaga townsendi*	Yellow Warbler Townsend's Warbler
	Passerellidae	*Melospiza melodia* *Melozone crissalis* *Pipilo maculatus* *Zonotrichia leucophrys*	Song Sparrow California Towhee Spotted Towhee White-crowned Sparrow
	Passeridae	*Passer domersticus*	House Sparrow
	Phalacrocoracidae	*Nannopterum auritum*	Double-Crested Cormorant
	Picidae	*Colaptes auratus* *Melanerpes formicivorus* *Picoides nuttallii*	Northern Flicker Acorn Woodpecker Nuttall's Woodpecker
	Podicipedidae	*Aechmophorus occidentalis*	Western Grebe
	Rallidae	*Fulica americana*	American Coot
	Sturnidae	*Sturnus vulgaris*	European Starling
	Trochilidae	*Calypte anna* *Selasphorus sasin*	Anna's grosbird Allen's Hummingbird
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Turdidae	*Sialia mexicana* *Turdus migratorius*	Western Bluebird American Robin
	Tyrannidae	*Pyrocephalus obscurus* *Sayornis nigricans* *Tyrannus verticalis*	Vermilion Flycatcher Black Phoebe Western Kingbird
	Tytonidae		
	Vireonidae	*Vireo bellii pusillus* *Vireo huttoni*	Least Bell's Vireo Hutton's Vireo
	Bivalvia Species		
	Crustacean Species		
	Fish Species		
	Insect Species		
	Apidae	*Apis* *Bombus Crotchii* *Bombus pensylvanicus* *Bombus vosnesenskii* *Xylocopa*	Western Honey Bee Crotch's Bumblebee American Bumblebee Yellow-Faced Bumblebee Carpenter Bee
	Chrysomelidae	*Chrysochus cobaltinus* *Paropsis atomaria*	Blue Milkweed Beetle Dotted Paropsine Leaf Beetle
	Cicadae	*Okanagana sp.*	Cicada Spp
	Ixodidae	*Dermacentor variabilis*	American Dog Tick
	Nymphalidae	*Nymphalis antiopa*	Mourning Cloak Butterfly
	Mammalian Species		
	Leporidae	*Sylvilagus audubonii*	Desert cottontail

Flora/Fauna Compendium

Type	Family	Scientific Name	Common Name
	Sciuridae	*Otospermophilus beecheyi*	California Ground Squirrel
	Reptilian Species		
	Phrynosomatidae	*Sceloporus occidentalis*	Western Fence Lizard