Appendix G

Least Bell's Vireo Protocol Survey Report

Casa Loma Siphon No. 1 and San Jacinto Pipeline Project

Least Bell's Vireo Protocol Survey Report

prepared for

The Metropolitan Water District of Southern California
700 North Alameda
Los Angeles, California 90012

prepared by

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

September 2024

RINCON CONSULTANTS, INC. SINCE 1994

Table of Contents

Tables

Figures

Appendices

This page intentionally left blank.

1 Introduction

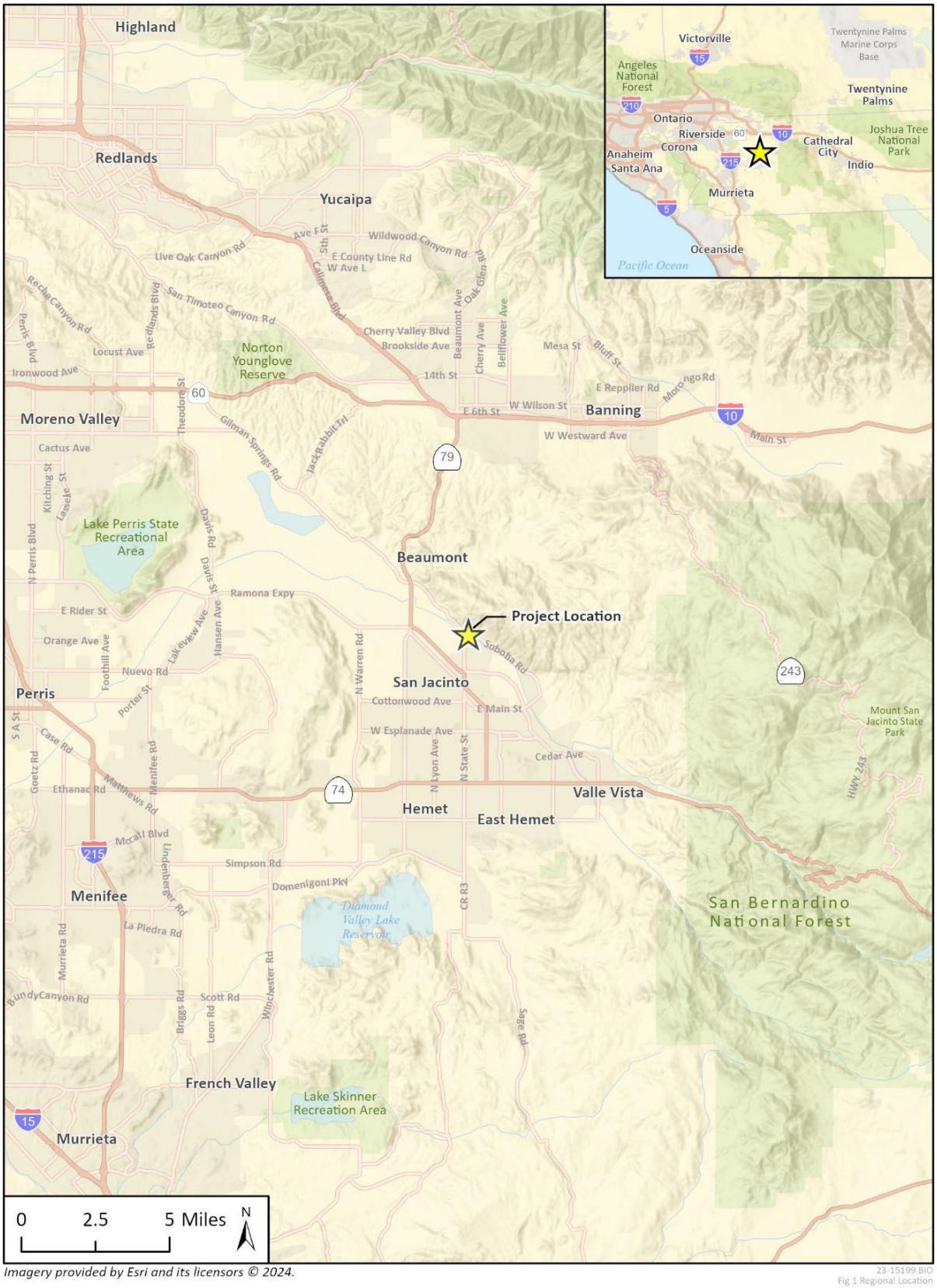
Rincon Consultants, Inc. (Rincon) herein presents the results of a protocol focused least Bell's vireo (*Vireo belli pusillus;* LBVI) survey, conducted on behalf of The Metropolitan Water District of Southern California (Metropolitan) for the Casa Loma Siphon No. 1 and San Jacinto Pipeline Project (project). Rincon completed the survey to determine the presence/absence of the federally and state listed endangered LBVI on or near the project site prior to project activities.

The project site encompasses an approximate 20-acre area located within and adjacent to the San Jacinto River, between Soboba Road and State Street, near the city of San Jacinto, unincorporated Riverside County, California (Figure 1 and Figure 2). The project site is depicted on the United States Geological Survey (USGS) *San Jacinto, California,* 7.5-minute topographic map within Township 4 South, Range 1 West, Section 15, San Bernardino Baseline and Meridian (33.820600°, -116.969914°).

During storm activity in early 2023, accelerated flows within the San Jacinto River exposed an approximate 200-foot-long segment of one of Metropolitan's Casa Loma Siphon No. 1 and San Jacinto Pipelines. In response to the emergency, Metropolitan installed protective measures to achieve temporary protection of the pipelines until a permanent solution could be developed. Metropolitan is now proposing a permanent engineering solution within the approximate 20-acre project site to properly cover the three existing pipelines (Colorado River Aqueduct [CRA] Siphon, San Jacinto Pipeline, and Casa Loma Canal Siphon).

Suitable habitat for LBVI within the project site consists of Fremont cottonwood woodland and forest (*Populus fremontii* Forest Alliance) and patches of tamarisk thickets (*Tamarix* spp. Shrubland Alliance). These communities occurs within the Biological Study Area (BSA, project site plus a 500-foot buffer). Rincon biologists conducted eight surveys from May to July 2024 to determine the current presence/absence of LBVI within the identified suitable riparian habitat in the BSA along the San Jacinto River.

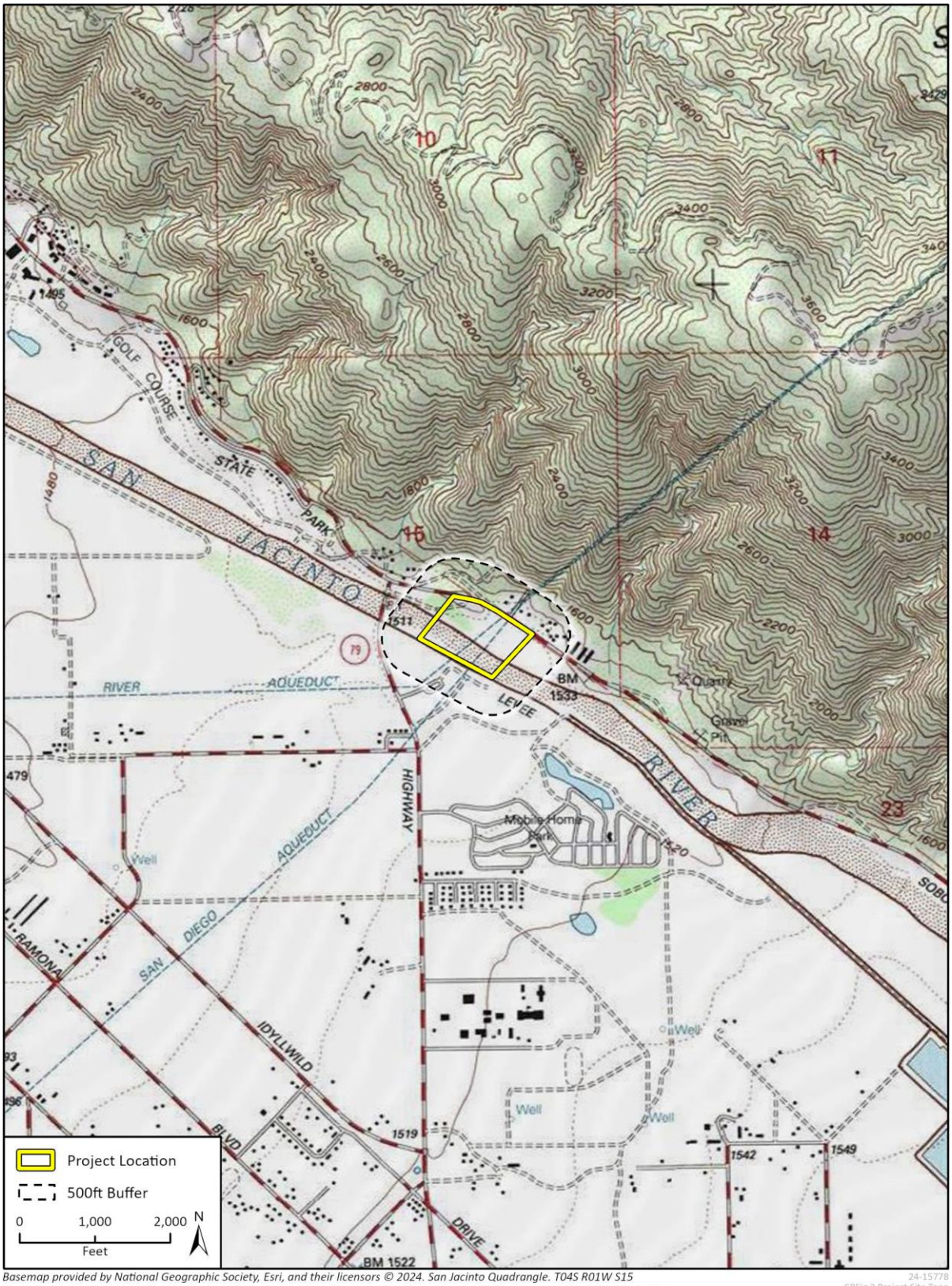
Figure 1 Regional Location Map



Imagery provided by Esri and its licensors © 2024.

23-15199 BIO
Fig 1 Regional Location

Figure 2 USGS Quadrangle Map with Project Site and Biological Study Area



Basemap provided by National Geographic Society, Esri, and their licensors © 2024. San Jacinto Quadrangle. T04S R01W S15
The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

24-15778
CRFig 2 Project Site Topo

2 Methodology

Protocol surveys for LBVI were conducted by Rincon biologists Jared Reed, Jacob Hargis, Morgan Henderson, and Molly Morrissey within the BSA. The surveys were conducted in accordance with the United States Fish and Wildlife Service (USFWS) *Least Bell's Vireo Survey Guidelines*, issued January 19, 2001. Eight surveys were conducted at least 10 days apart between April 10 and July 31 (Table 1). The surveys occurred between dawn and 11:00 am each day within all portions of the BSA containing potentially suitable riparian habitat. Surveys were not conducted during inclement weather conditions (e.g., excessive, or abnormal heat, cold, wind, rain, or fog).

The BSA includes suitable LBVI riparian habitat (i.e., riparian scrub and forest) of sufficient acreage and stature to support LBVI territories. Vegetation communities were previously classified and mapped by Rincon biologists (Rincon 2024). The surveys focused on suitable habitat within Metropolitan's property and adjacent Western Riverside County Regional Conservation Authority Conserved Lands. During each survey visit, the surveyors slowly walked areas of suitable habitat within the BSA, stopping at approximate 25-foot intervals to listen for LBVI songs and calls, and observed habitat with the aid of binoculars (10x42) for adults and fledglings. Nest searching was not conducted. Age, sex, breeding status, and behavioral characteristics were recorded, if LBVI were observed. Play back vocalizations were not used and observations were made from locations where birds would not be disturbed.

Table 1 Least Bell's Vireo Survey Conditions

Date	Survey Visit	Time		Temperature (°F)		Wind Speed (mph)		Cloud Cover (%)		Precipitation (in)
		Begin	End	Begin	End	Begin	End	Begin	End	
5/14/24	1	0830	1000	57	63	1-5	1-5	100	0	0
5/24/24	2	0755	1040	56	60	3-6	3-6	100	100	0
6/4/24	3	0815	1045	64	77	2-4	2-4	40	20	0
6/14/24	4	0800	1000	64	77	1-3	1-3	0	0	0
6/25/24	5	0800	1000	77	88	1-3	1-3	0	0	0
7/8/24	6	0800	1000	76	84	2-5	2-5	0	0	0
7/19/24	7	0800	1000	78	86	1-3	1-3	0	0	0
7/30/24	8	0800	0945	69	80	1-3	1-3	0	0	0

3 Environmental Setting

The BSA contains suitable habitat for nesting and foraging LBVI, including Fremont cottonwood woodland and tamarisk thickets (Figure 3). Although fourwing saltbush scrub would not typically be considered suitable habitat, foraging LBVI were found in this habitat during the later surveys. The topography of the BSA is flat with an incline that drops into the wash from the adjacent upland area. The wash characteristics are a result of intermittent flow from the San Jacinto River.

Adjacent land use consists of Soboba Road and undeveloped arid hills further to the north. Agricultural land and residential communities occur to the south, west, and east of the BSA.

Fremont Cottonwood Forest and Woodland

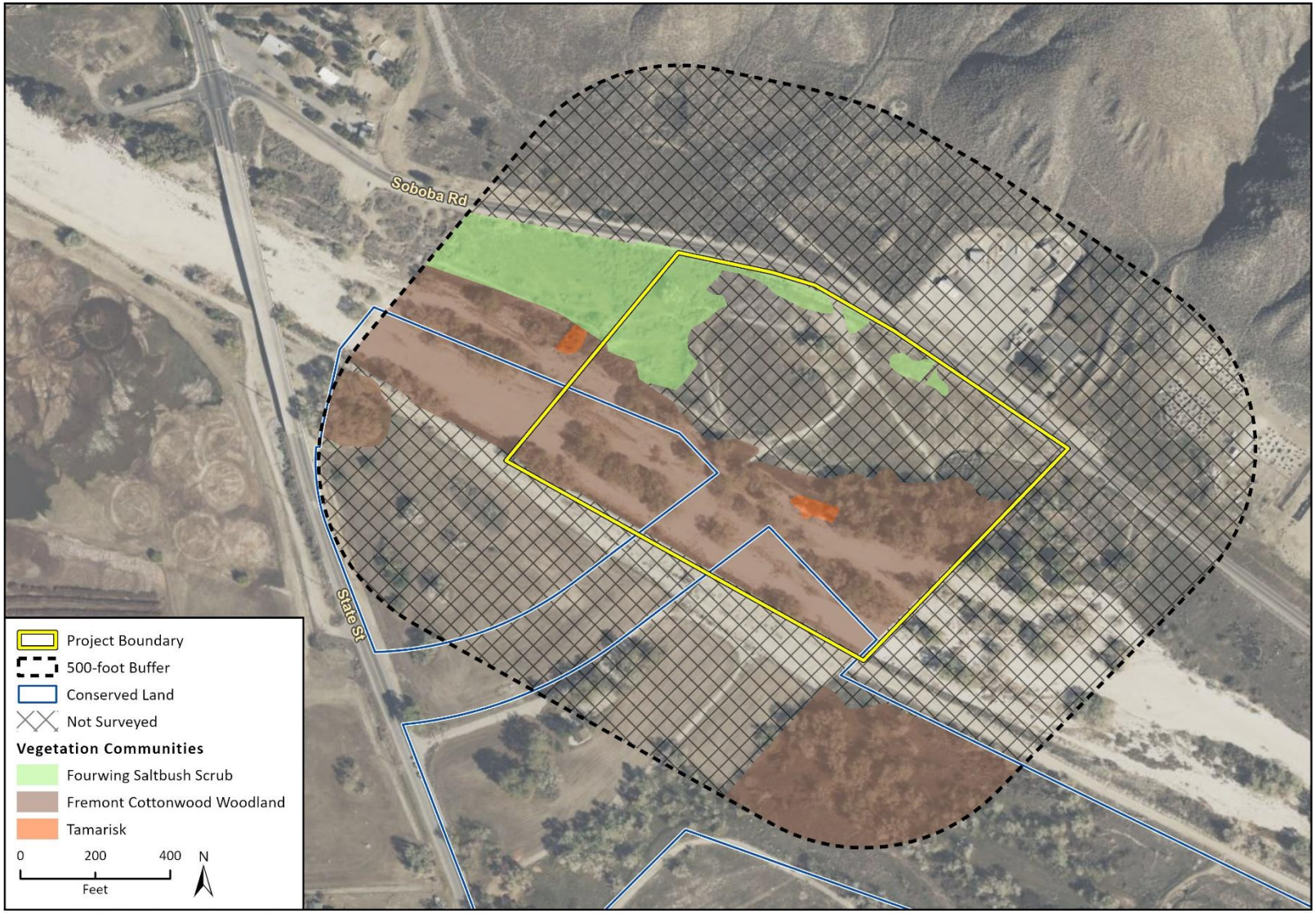
Fremont cottonwood woodland (*Populus fremontii* Woodland Alliance) is a vegetation community characterized by dominant Fremont cottonwood (*Populus fremontii* ssp*. fremontii*) in the tree canopy (approximately 10 to 80 percent absolute cover, and greater than 50 percent relative cover, in the tree layer) with willows (*Salix* spp.) and other riparian trees, such as western sycamore (*Platanus racemosa*). The tree canopy is typically continuous to open, the shrub layer intermittent to open, and the herbaceous layer variable (Sawyer et al. 2009). This alliance can be found on floodplains; along low-gradient rivers, perennial or seasonally intermittent streams, and springs; and in canyons, alluvial fans, and valleys with a dependable subsurface water supply that varies considerably during the year. This community is ranked G4S3 and is classified as sensitive (California Department of Fish and Wildlife [CDFW] 2023).

Fremont cottonwood woodland is found throughout the BSA, within the San Jacinto River and in the southeastern and southwestern corners of the BSA. Fremont cottonwood is dominant in the tree layer, with Goodding's black willow (*Salix gooddingii*) a common co-dominant species. The shrub layer is not dense and contains large areas of unvegetated river channel with scattered stands of mulefat (*Baccharis salicifolia*) and Hinds' willow (*Salix exigua* var. *hindsiana*).

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) is found within the western upland habitat of the BSA. Fourwing saltbush scrub is typically found on playas, old beaches and shores, lake deposits, dissected alluvial fans, rolling hills or channel beds at elevations between 246 and 4,921 feet (74 and 1,500 meters) above mean sea level (amsl). Soils are generally carbonate rich, alkaline, sandy, or sandy clay loams. Fourwing saltbush scrub is characterized by an open to intermittent shrub canopy and a variable herbaceous layer composed of seasonal herbs and non-native grasses. Fourwing saltbush has over two percent absolute cover and over 50 percent relative cover in the shrub layer (Sawyer et al. 2009). This community is ranked G5S4 and is not classified as sensitive (CDFW 2023). In the BSA, this vegetation community is co-dominated by fourwing saltbush (*Atriplex canescens*), red brome (*Bromus rubens*) and horsewheat (*Triticum aestivum*). In the BSA, this vegetation community is co-dominated by fourwing saltbush (*Atriplex canescens*), red brome (*Bromus rubens*) and horsewheat (*Triticum aestivum*). It is found in the western part of the BSA, and in a few areas in the northeast portion of the BSA.

Figure 3 Vegetation Communities



Imagery provided by Microsoft Bing and its licensors © 2024.
Additional data provided by WRCRCA, MSHCP, 2023.

24-15778 BIO
Fig X Vegetation

Tamarisk Thickets

Tamarisk thickets (*Tamarix* spp. Shrubland Alliance) is characterized by dominant saltcedar (*Tamarix ramosissima*) or other tamarisk (*Tamarix* spp.) species in the shrub or low tree layer. Emergent native shrubs or trees may be present at low cover, including Fremont cottonwood or willows. Tamarisk has at least three percent absolute cover or 60 percent relative cover in the shrub or low tree layer. This alliance can be found between 246 and 2,625 feet amsl (Sawyer et al. 2009). This vegetation community is ranked GNASNA due to the dominance of non-native species and is not considered sensitive (CDFW 2023). Tamarisk stands are found in two small, distinct locations within the San Jacinto River.

4 Results and Discussion

Overall avian activity and diversity was moderate to high during the surveys and common avian species expected to occur within riparian habitats were observed. A list of avian species observed/detected during the surveys is provided in Appendix A. Least Bell's vireo were detected and locations were mapped using ArcGIS collector.

A total of 13 LBVI observations were confirmed throughout the eight protocol surveys and their respective locations are shown in Figure 4. Least Bell's vireo were detected in two territories: a western territory and southeastern territory. Least Bell's vireo were detected in six out of the eight surveys in the western territory and seven out of the eight surveys in the southeastern territory; none were detected in either territory during the second survey. Individuals were observed singing and foraging in three identified habitat types, including Fremont cottonwood forest and woodland, tamarisk thickets, and fourwing saltbush scrub.

Rincon biologists estimate at least six individuals were present within two territories within the BSA (western territory and southeastern territory): two males, two females, and two fledglings. Males establish and defend territories through counter-singing, chasing, and sometimes engaging in physical combat with neighboring males (Kus 2020). Male vireos often use high exposed perches in the canopy as singing perches during territorial defense and advertisement (Kus 2020). If a male is observed in the same location throughout the breeding season, it is likely part of a nesting pair. A pair and a fledgling were observed in the western territory. A female was not detected in the western territory; however, a fledgling was, indicating a female was present in that territory as well.

The male in the western territory was heard singing during the first survey from within a dense tamarisk thicket in the western part of the BSA. The male was calling from a height less than six feet, leading the biologists to believe it was sitting on a nest. The biologists decided not to investigate further as to avoid disturbing nesting activities. Least Bell's vireo nests are normally found in areas with dense understory shrub cover for concealing their nests (Kus 2020). A fledgling was first heard and visually observed by biologists in this territory during the fourth survey. The fledgling was calling from Fremont cottonwood and tamarisk trees, close to where the suspected nest was. On the seventh survey, a fledgling was heard calling from the fourwing saltbush scrub habitat north of the tamarisk stand. On the eighth and final survey, a male was heard singing from the fourwing saltbush scrub habitat; however, the pace of the call was slower than usual, and the call was incomplete, leading biologists to suspect it was a male fledgling practicing singing.

The male in the southeastern territory was heard singing during the first survey within a Fremont cottonwood thicket in the southeastern part of the BSA. During the fifth survey, this male was heard singing within the riverbed, further north than where it had been initially documented and within private property that was not surveyed on foot. The male was observed with binoculars singing from high perches in Fremont cottonwood trees. The male continued singing and flying north towards Soboba Lane, at which point biologists lost track of the male. During the sixth survey, an LBVI pair was observed with binoculars in a patch of Hinds' willow within private property in the riverbed. Biologists suspected was the same male from the western territory. The pair were chasing each other west, eventually entering back into the BSA in the southeast. A fledgling was heard in this territory during the seventh survey, and a male was heard singing during the eighth survey.

The existence of LBVI within the BSA along with dense areas of riparian vegetation make the San Jacinto River in this location a suitable nesting area for LBVI. The data collected confirms riparian habitat within the BSA along the San Jacinto River contained two LBVI territories in 2024.

Leg bands were not observed on any of the LBVI in the survey area.

No brown-headed cowbirds (*Molothrus ater*), southwestern willow flycatchers (*Empidonax traillii extimus*), or western yellow-billed cuckoos (*Coccyzus americanus occidentalis*) were observed during the surveys. An avian compendium, located in Appendix A, contains a total of 45 bird species that were documented within the BSA. Representative site photographs were taken of the project site and BSA, located in Appendix B.

Figure 4 Least Bell's Vireo Observations

Imagery provided by Microsoft Bing and its licensors © 2024.
Additional data provided by WRCRCA, MSHCP, 2023.

24-15778 BIO
Fig 4 Least Bells Vireo Observations Within BSA

5 Certification

I hereby certify that the statements furnished in this report and in the attached figures present data and information required for these LBVI protocol surveys. The facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed: _____ Date: 9/3/2024

Jared Reed
Senior Biologist/Project Manager

6 References

Cornell Lab of Ornithology. 2022. *All About Birds - Bell's Vireo Life History*. Cornell Lab of Ornithology, Ithaca, New York. https://www.allaboutbirds.org Accessed May 2022.

California Department of Fish and Wildlife. 2023. California Natural Communities List, June 2023. Accessed July 2024.

_____. 2024. Special Animals List, July 2024. Sacramento, CA.

Kus, B. 2002. Least Bell's Vireo (*Vireo bellii pusillus*). *In* The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. http://prbo.org/calpif/pdfs/riparian_v-2.pdf. Accessed August 2024.

Rincon Consultants, Inc. (Rincon). 2024. Casa Loma Siphon No. 1 and San Jacinto Pipeline Project Biological Resources Assessment.

Sawyer, J., T. Keeler-Wolf, and J. Evens, 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society Press. Sacramento, California.

State of California Resources Agency. 2019. Department of Fish and Game. Natural Heritage Division. *Endangered and Threatened Animals List*. Sacramento, CA.

United States Fish and Wildlife Service (USFWS). 1998. *Draft Recovery Plan for the Least Bell's Vireo (Vireo bellii pusillus).* Portland, OR.

_____. 2001. *Least Bell's Vireo Survey Guidelines.*

_____. 2006. *Least Bell's Vireo (Vireo bellii pusillus) 5-Year Review Summary and Evaluation*. USFWS Carlsbad Office, 26 pgs.

_____. 2016. En*dangered and Threatened Wildlife and Plants; Determination of Endangered Status for Least Bell's Vireo.* 51 Federal Register: 16474 – 16482.

Winkler, D. W., S. M. Billerman, and I. J. Lovette (2020). Version 1.0. Birds of the World (S. M. Billerman, B. K. Keeney, P. G. Rodewald, and T. S. Schulenberg, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://birdsoftheworld.org/bow/home. Accessed August 2022.

Appendix A

Avian Compendium

Avian Compendium

Genus, Species Name	Group, Common Name
Accipitridae	**Hawks**
Accipiter cooperii	Cooper's hawk
Buteo lineatus	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
Buteo swainsoni	Swainson's hawk
Aegithalidae	**Bushtits**
Psaltriparus minimus	bushtit
Anatidae	**Ducks, Geese, and Swans**
Anas platyrhynchos	mallard
Alaudidae	**Larks**
Eremophila alpestris	horned lark
Cardinalidae	**Grosbeaks**
Passerina amoena	lazuli bunting
Pheucticus melanocephalus	black-headed grosbeak
Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Columbidae	**Pigeons, Doves**
Zenaida macroura	mourning dove
Corvidae	**Crows, Jays**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Emberizidae	**Emberizids**
Melozone crissalis	California towhee
Pipilo maculatus	spotted towhee
Melospiza melodia	song sparrow
Falconidae	**Falcons**
Falco sparverius	American kestrel
Fringillidae	**Finches**
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
Spinus lawrencei	American goldfinch
Hirundinidae	**Swallows**
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
Icteridae	**New World Oriole**
Agelaius phoeniceus	red-winged blackbird
Icterus cucullatus	hooded oriole
Sturnella neglecta	western meadowlark

Genus, Species Name	Group, Common Name
Parulidae	**Wood-Warblers**
Setophaga petechia	yellow warbler
Passerellidae	**New World Sparrows**
Melospiza melodia	song sparrow
Passeridae	**Old World Sparrows**
Passer domesticus	house sparrow
Picidae	**Woodpeckers**
Colaptes auratus	northern flicker
Dryobates nuttallii	Nuttall's woodpecker
Polioptilidae	**Gnatcatchers**
Polioptila caerulea	blue-gray gnatcatcher
Polioptila sp.	gnatcatcher*
Strigidae	**True Owls**
Bubo virginianus	great horned owl
Sturnidae	**Starling**
Sturnus vulgaris	European starling
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Tyrannidae	**Tyrant Flycatchers**
Myiarchus cinerascens	ash-throated flycatcher
Pyrocephalus obscurus	vermillion flycatcher
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus verticalis	western kingbird
Tyrannus vociferans	Cassin's kingbird
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
Turdidae	**Thrushes**
Sialia mexicana	western bluebird
Vireonidae	**Vireo**
Vireo bellii pusillus	least Bell's vireo

*Species not confirmed visually

Appendix B

Site Photographs

Photograph 1. Fremont cottonwood woodland within the San Jacinto River, facing southeast. July 30, 2024.

Photograph 2. Fremont cottonwood woodland within the San Jacinto River, facing north. San Jacinto Mountain foothills in the background. July 30, 2024.

Photograph 3. View of upland mustards (foreground) fourwing saltbush scrub (middle), and Fremont cottonwood woodland (background). Facing southwest. July 30, 2024.

Photograph 4. Westernmost tamarisk thicket, facing west. July 30, 2024.

Photograph 5. View of Fremont cottonwood woodland in the southeasternmost section of the BSA, within the 500-foot buffer. Facing southwest. June 4, 2024.

Photograph 6. Upland mustards and disturbed landcover (dirt roads), facing northwest. July 30, 2024.

This page intentionally left blank.