

**Least Bell's Vireo Survey Results  
for the  
Sunnymead Master Drainage Plan – Storm Drain  
Lines F and F-7 Project (City Project # 804 0008)**

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**Riverside County, California**

Assessor's Parcel Numbers: 292-022-002, 292-022-011, 292-032-011,  
292-061-010, 292-241-003, 292-241-006, 292-241-015,  
292-250-005, 292-250-012, 292-250-013, and 292-250-020

**Prepared For:**

WSP USA Environment & Infrastructure Inc.  
401 B. Street, Suite 1650  
San Diego, CA 92101

**Prepared By:**



215 North 5th Street  
Redlands, California 92374

**July 2024**

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**LIST OF ACRONYMS AND ABBREVIATIONS**

<b>Term</b>	<b>Definition</b>
°F	degrees Fahrenheit
APN	Assessor's Parcel Number
CDFW	California Department of Fish and Wildlife
City	City of Moreno Valley
ECORP	ECORP Consulting, Inc.
LBVI	least Bell's vireo
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
mph	miles per hour
MSHCP	Multiple Species Habitat Conservation Plan
Project	Sunnymead Master Drainage Plan – Storm Drain Lines F and F-7 Project (City Project # 804 0008)
RCB	reinforced concrete box
RCFC&WCD	Riverside County Flood Control and Water Conservation District
RCP	reinforced concrete pipe
SMART	Stormwater Management and Retention Treatment
SR	State Route
SSC	Species of Special Concern
Survey Area	The three habitats, disturbed Fremont cottonwood forest and woodland, disturbed Gooding's willow-red willow riparian woodland, and disturbed sandbar willow thickets, mapped by ECORP
USFWS	U.S. Fish and Wildlife Service

## 1.0 INTRODUCTION

WSP USA Environment & Infrastructure Inc. retained ECORP Consulting, Inc. (ECORP) to conduct focused surveys for least Bell's vireo (*Vireo bellii pusillus*; LBVI) within the Proposed Sunnymead Master Drainage Plan (MDP) Line F and F-7 Project (City Project # 804 0008; Project) Site, which is located in the City of Moreno Valley (City), Riverside County, California.

ECORP previously conducted a biological analysis for the Proposed Project that identified suitable habitat for LBVI on the Project Site. The analysis also included a literature review of LBVI occurrences within five miles of the Project Site (ECORP 2023). This report presents the results of the LBVI presence/absence surveys that ECORP conducted during the 2024 breeding season.

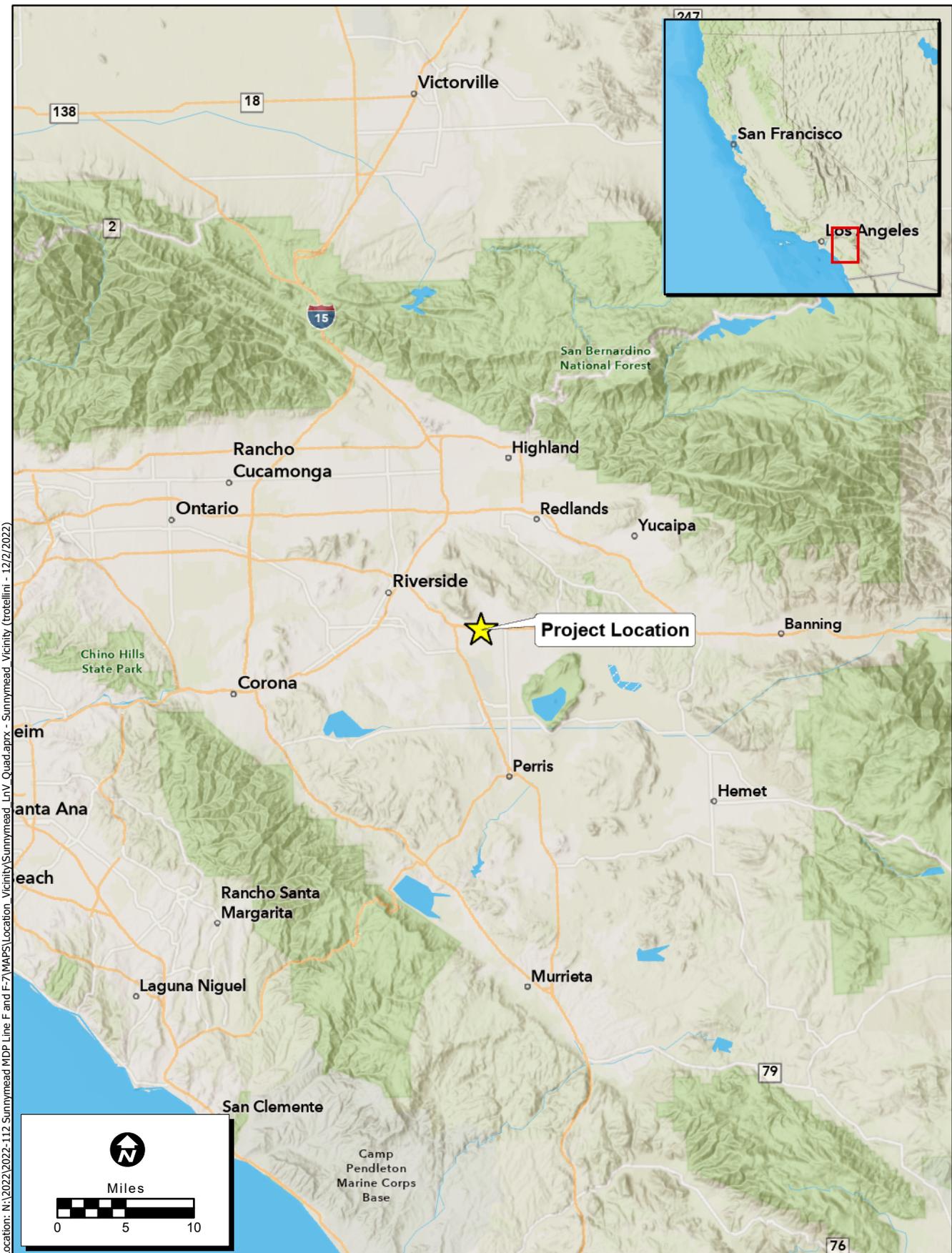
### 1.1 Project Location

The Project Site is located in the City in Riverside County, California and is east of Interstate 215 (Figure 1). The Project Site is located south of Ironwood Avenue, north of Eucalyptus Avenue, west of Heacock Street, and east of Frederick Street (Figure 2). The Project Site consists of an approximately 21.73-acre area composed of Assessor's Parcel Numbers (APNs): 292-022-002, 292-022-011, 292-032-011, 292-061-010, 292-241-003, 292-241-006, 292-241-015, 292-250-005, 292-250-012, 292-250-013, and 292-250-020.

The Project is located within Section 1 of Township 3 South, Range 4 West and is depicted on the U.S. Geological Survey Riverside East 7.5-minute topographic map quadrangle. Elevation at the Project Site ranges from approximately 1,615 feet to 1,655 feet (501 to 504 meters) above mean sea level (Google Earth 2024).

### 1.2 Existing Conditions

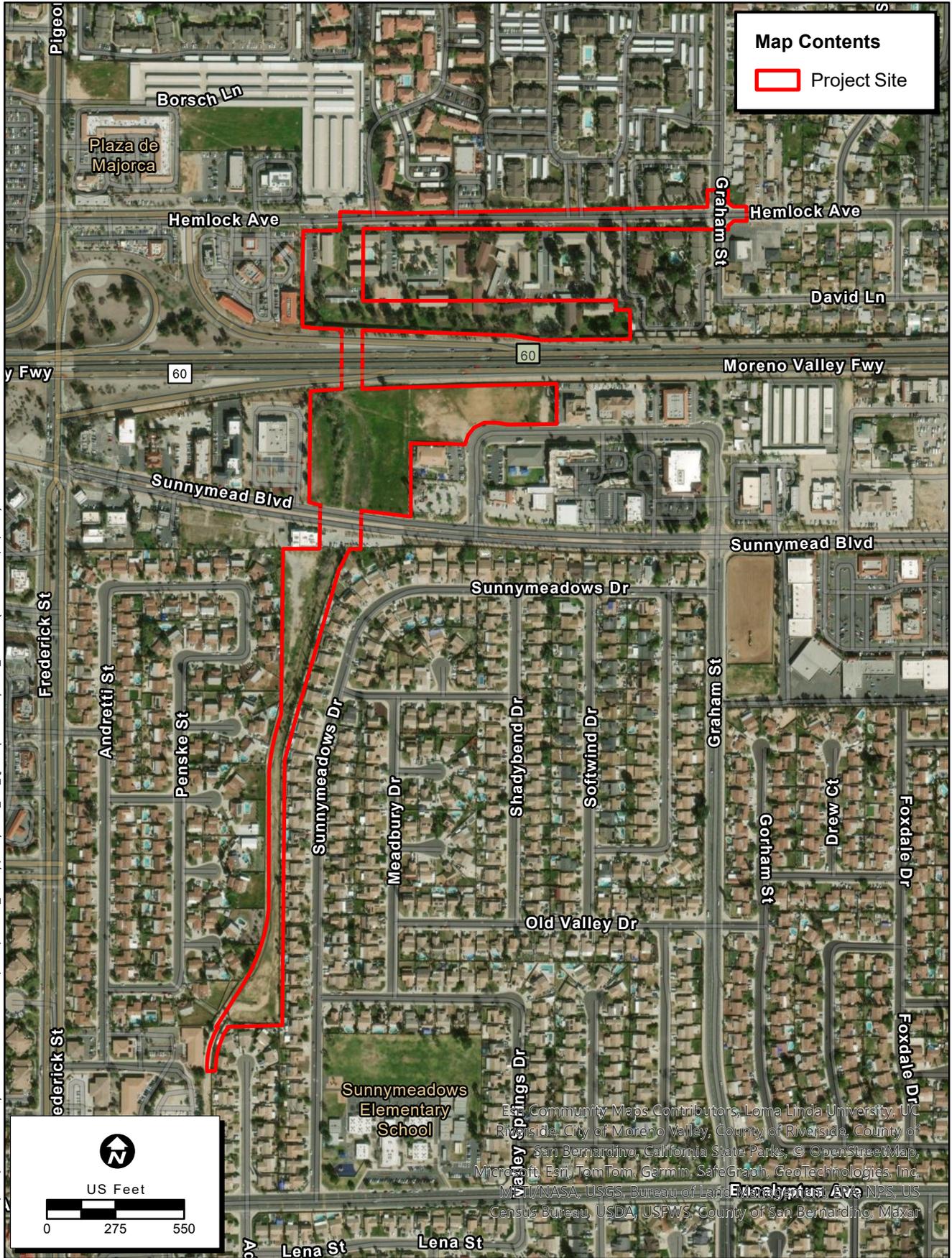
The northern portion of the Project Site, which is north of State Route (SR) 60, consists of residential development and paved roadways (Hemlock Avenue and SR-60). The central portion of the Project Site, which is bordered by SR-60 to the north and Sunnymead Boulevard to the south, includes a paved roadway (Sunnymead Boulevard) and an undeveloped lot with a patch of riparian vegetation, although it is mostly composed of disturbed soils and nonnative vegetation. The southern portion of the Project Site, which is south of Sunnymead Boulevard, includes two patches of riparian vegetation within a vacant lot that is heavily disturbed with compacted soils. At the time of the survey, disturbances within the Project Site and the surrounding 500-foot buffer included trash, unauthorized dumping, pedestrians, homeless encampments, and previous mechanical disturbances (e.g., discing and grading). The Project Site is surrounded by residential and commercial development on all sides. The southern portion of the Project Site, which is south of Sunnymead Boulevard, is bordered by fencing on all sides except for at the southwestern tip of the Project Site's boundary. Some native vegetation existed within the Project Site in the riparian vegetation.



Map Date: 12/2/2022  
 Service Layer Credits: Loma Linda University, UC Riverside, City of Moreno Valley, County of Riverside, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, CGIAR, USGS, Esri, Garmin, FAO, NOAA, USGS, EPA, Esri, USGS

**Figure 1. Project Vicinity**





Location: N:\2022\2022-112 Sunnymead MDP Line F and F-7\MAPS\Location\_Vicinity\Sunnymead\_Ln\_V\_Quad.aprx - Sunnymead\_Location (mwilliams - 7/12/2024)

Map Date: 12/19/2022  
Sources: ESRI, Maxar (2023)

**Figure 2. Project Location**

### 1.3 Survey Area Description

The Project Site consists of developed land and disturbed undeveloped land cover. ECORP mapped and described the vegetation communities within the Project Site in 2023 using the designations in *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009; ECORP 2023).

ECORP mapped three habitats within the Project Site that may provide suitable nesting and foraging habitat for LBVI. These habitats include disturbed Fremont cottonwood forest and woodland, disturbed Gooding's willow-red willow riparian woodland, and disturbed sandbar willow thickets (Figure 3). Therefore, ECORP designated the previously described habitats as the LBVI survey area (Survey Area). No suitable LBVI habitat was present within 500 feet of the previously described habitats; therefore, the area outside of this buffer was not surveyed.

### 1.4 Project Description

The Proposed Project consists of storm drain improvements to MDP Line F from Hemlock Avenue to the north of Eucalyptus Avenue. The proposed improvement would reduce flooding along Hemlock Avenue, Graham Street, Sunnymead Boulevard, and at on-site properties. In addition to addressing flooding issues, the Project would improve water quality by implementing infiltration elements. The City's Capital Improvement Plan and the Riverside County MDP identify the proposed storm drain system.

The Proposed Project would include a total of 5,000 feet of storm drain, 14 catch basins, 3 infiltration facilities, 2 diversion structures, 2 weir structures, 1 confluence structure, as well as energy dissipation where necessary. Most of the impacts would be considered temporary.

Project improvements would begin at the intersection of Graham Street and Hemlock Avenue with an array of catch basins that would be designed to intersect the heavy flows from north of Graham Street. From here, the flows would be conveyed westerly through an underground pipe system in Hemlock Avenue for approximately 1,600 feet; then the system would sweep south (into the Towngate Racquet Club Apartment Complex) and capture the flows from the easterly pipe of the Hemlock culvert using a storm drain lateral. From here, the combined flows would continue southerly in a 72-inch pipe that would cross under SR-60 and two private properties (APN 292-250-012 and 292-250-013). Upon reaching Sunnymead Boulevard, this system would transition from a 72-inch reinforced concrete pipe (RCP) to a 20- by 4-foot reinforced concrete box (RCB) and a 10- by 8-foot RCB and capture the runoff from the Boulevard with a series of catch basins. The storm drain system would then cross private property (APN 292-250-020) prior to being routed through a Stormwater Management and Retention Treatment (SMART) basin. The basin would allow low flows to flow into a 72-inch RCP storm drain main and provide detention and infiltration for the high flows. The high flows exiting in the 72-inch RCP would be routed 1,500 feet south to a Portland cement concrete confluence structure, where they would combine with the low flows from the existing natural channel that would run parallel to and east of the storm drain main. Improvements at the south end of the Project would include a second detention basin system where existing peak flows from the adjacent Sunnymeads Drive neighborhood would be reduced and routed through the south basin. A 36-inch RCP storm drain pipe would route the excess flows from the neighborhood and connect to the confluence structure downstream of the south basin overflow weir.

From here, the storm water would flow together from a concrete box transition structure and enter the existing Riverside County Flood Control and Water Conservation District (RCFC&WCD) concrete trapezoidal channel.

The dual-purpose SMART basin would be designed to meet specific RCFC&WCD standards. The SMART basin would include two elements that would be necessary to address peak flows and RCFC&WCD standards. The basin would provide flow reduction through detention of the peak flow rate of the 100-year storm while also providing a high-flow detention element to preserve the beneficial uses of the basin area through infiltration and recharge of groundwater. The floor of the basin would be used for detention purposes that would allow for minimal ponding to ensure drawdown of detained runoff within 48-hours. Storage in the basins above the detention volume would reduce the peak flow rates of the 100-year storm event. Given the complexity and functionality of basins that include both retention and detention components, for the purposes of this Project, this basin will be referred to as the SMART basin.

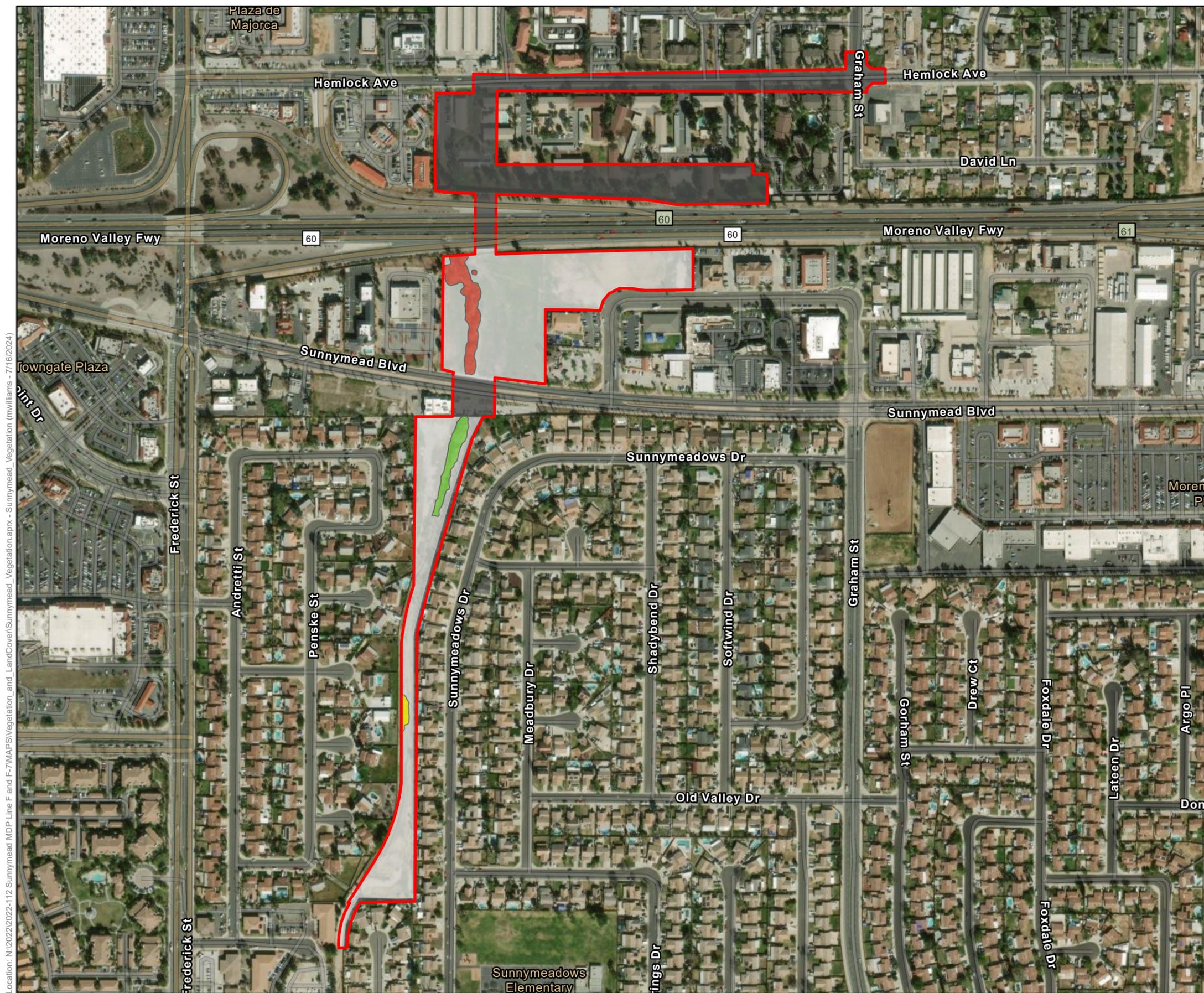
## 2.0 SPECIES ACCOUNTS

### 2.1 Least Bell's Vireo

The LBVI was state listed as endangered in 1980 and was federally listed as endangered in 1986 (California Department of Fish and Wildlife [CDFW] 2023; U.S. Fish and Wildlife Service [USFWS] 1986).

The LBVI is endemic to California and Baja California, Mexico. It is a highly migratory species that only occurs in the region during the breeding season. The males arrive sometime in late March to April and establish breeding territories, and the females arrive shortly thereafter (USFWS 1998). The LBVI usually returns to the wintering grounds sometime in August to September. The species is dependent upon riparian habitat during the breeding season and prefers willow-dominated woodland or scrub that typically exists along streams and rivers (Franzreb 1989). Other habitat types used by this species include mulefat scrub, mixed oak/willow woodland, mesquite woodland (*Prosopis* spp.), and elderberry scrub (*Sambucus* spp.).

Habitat characteristics that appear to be essential for LBVI occupation include dense cover from three to six feet in height for nesting and foraging and a stratified canopy that provides both foraging habitat and song perches for territorial advertisement. USFWS designated Critical Habitat for the LBVI on March 4, 1994 (USFWS 1994).



**Map Contents**

- Project Site

**Vegetation Communities and Land Cover Types**

- Disturbed (10.624 acres)
- Disturbed Fremont Cottonwood Forest and Woodland (0.348 acre)
- Disturbed Goodding's Willow - Red Willow Riparian Woodland (0.632 acre)
- Disturbed Sandbar Willow Thickets (0.081 acre)
- Urban/Developed (10.045 acres)

Service Layer Credits: World Imagery: County of San Bernardino, Maxar  
 Charted Territory: UC Riverside, City of Moreno Valley, County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS  
 Hybrid Reference Layer: Esri Community Maps Contributors, Loma Linda University, UC Riverside, City of Moreno Valley, County of Riverside, County of San Bernardino, California State Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS  
 World Hillshade: Esri, NASA, NGA, USGS

**Figure 3. Vegetation Communities and Land Cover Types**  
 2022-112 Sunnymead Master Drainage Plan – Storm Drain Lines F and F-7 Project  
 (City Project # 804 0008)

## 3.0 METHODS

### 3.1 Least Bell's Vireo

Surveys for LBVI were conducted within the Survey Area by a team of qualified biologists who are experienced in surveying for and identifying LBVI. Biologists were familiar with the calls, songs, and plumage characteristics of LBVI and other riparian bird species.

The survey was conducted in accordance with the most current USFWS protocol guidelines and mitigation measure BIO-2 of the biological technical report (USFWS 2001; ECORP 2023). A total of eight surveys were conducted between April 23 and July 3, 2024. The protocol recommends that surveys be conducted between dawn and 11 a.m. when weather conditions are favorable. Surveys were not conducted under extreme weather conditions (e.g. dense fog, high winds, rain, or extreme temperature) that may have reduced the potential for detection of LBVI. The biologists traversed areas of suitable LBVI habitat within the Project Site by foot and frequently stopped to look and listen for LBVIs.

Due to safety concerns, the biologists surveyed the disturbed Fremont cottonwood forest and woodland (Figure 3) from a distance to listen and scan for LBVI. The biologists surveyed the disturbed Fremont cottonwood forest and woodland from two areas including a parking lot immediately north of the habitat with a wall as a physical safety barrier, and approximately 164 feet (50 meters) south of the habitat to listen and scan for LBVI.

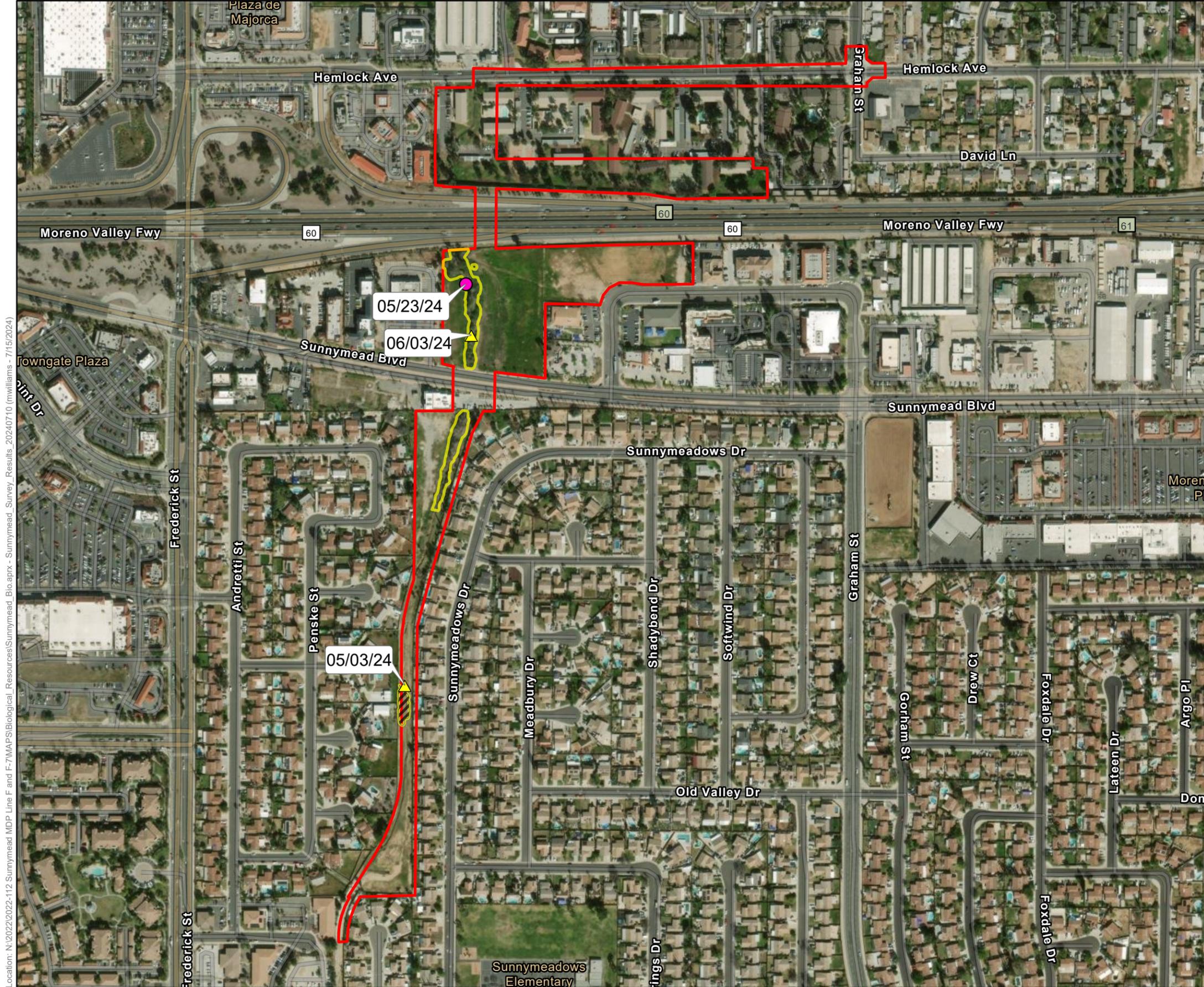
All wildlife species that the biologists detected during surveys were recorded, including special status species and incidental observations of nonnative brown-headed cowbirds (*Molothrus alter*). No recorded vocalizations were broadcasted or played back for the LBVI surveys. Data was collected in the field using the ArcGIS© Field Maps application on a device (i.e., smartphone or tablet) that was connected to a Global Positioning System unit.

## 4.0 RESULTS

### 4.1 Focused Surveys

#### 4.1.1 Survey Dates, Personnel, and Weather Conditions

All LBVI surveys were conducted by ECORP staff including Carla Marriner, Corrina Tapia, Christopher Uminski, Carter Warwick, Freddie Olmos, and Shelby Dunn. Figure 4 shows the results of the LBVI surveys. Table 1 lists the survey dates, survey times, weather conditions, and surveyors. Representative site photographs are attached as Appendix A, a list of all wildlife observed during the focused surveys is attached as Appendix B, and survey data sheets are attached as Appendix C.



- Map Contents**
- Project Site
  - Survey Area
  - Habitat removed between Survey #5 (6/3/24) and Survey #6 (6/13/24)
- Special Status Bird Observations**
- ▲ Yellow warbler
- Nest Location**
- Bushtit Nest

Sources: ESRI, Maxar (2023)



Location: N:\2022\2022-112 Sunnymead MDP Line F and F-7\MAPS\Biological\_Resources\Sunnymead\_Bio.aprx - Sunnymead\_Survey\_Results\_20240710 (mwilliams - 7/15/2024)

Map Date: 7/15/2024



**Figure 4. Least Bell's Vireo Survey Results**

Date	Surveyors <sup>1</sup>	Survey	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
			Start	End	Start	End	Start	End	Start	End
4/23/2024	CAM, SD	LBVI 1	0745	0955	55	60	100	100	0-3	0-1
5/03/2024	CU, SD	LBVI 2	0745	1020	60	65	100	100	0-1	0-1
5/13/2024	FO, SD	LBVI 3	0720	0715	57	70	100	5	0-1	0-2
5/23/2024	CU, SD	LBVI 4	0700	0910	56	60	100	100	0-1	1-3
6/03/2024	CU, SD	LBVI 5	0700	0925	59	63	100	100	0-1	0-1
6/13/2024	CAM, SD	LBVI 6	0710	0850	60	68	100	100	0-1	0-1
6/24/2024	CW, SD	LBVI 7	0645	0835	75	81	10	15	0-1	0-1
7/03/2024	CNT, SD	LBVI 8	0615	0800	71	80	0	0	0-1	0-1

Notes: <sup>1</sup>CAM= Carla Marriner, CNT= Corrina Tapia, CU = Christopher Uminski, CW= Carter Warwick, FO= Freddie Olmos, SD = Shelby Dunn  
 °F = degrees Fahrenheit; LBVI = least Bell's vireo; mph = miles per hour

## 4.2 Least Bell's Vireo

The surveyors did not detect LBVI individuals within or near the Study Area during the eight protocol surveys for the species. Therefore, ECORP considers LBVI to be absent from the Project Site at this time. The surveyors located suitable breeding habitat within the disturbed Fremont cottonwood forest and woodland, disturbed Gooding's willow-red willow riparian woodland, and disturbed sandbar willow thickets (Figure 3). The disturbed sandbar willow thicket habitat was removed by an unknown entity sometime between LBVI Survey #5 and LBVI Survey #6 (Figure 4). The habitat loss appeared to be associated with weed abatement activities because the grasses surrounding the habitat had been trimmed during the same timeline; therefore, this area was not surveyed after Survey #5. Homeless encampments and dumping were present within all three vegetation communities suitable for LBVI.

The Survey Area is not located within designated Critical Habitat for LBVI (USFWS 1994). The closest Critical Habitat is located along the Santa Ana River approximately nine miles northwest of the Project.

## 4.3 Incidental Wildlife Observations

The surveyors incidentally observed yellow warbler (*Setophaga petechia*; CDFW Species of Special Concern [SSC], Multiple Species Habitat Conservation Plan [MSHCP] Covered) twice in the Project Site during the focused LBVI surveys (Figure 4). The surveyors aurally detected one yellow warbler during Survey #2 and another yellow warbler was visually and aurally detected during Survey #5. Additionally, one active bushtit (*Psaltriparus minimus*) nest was documented in the Project Site (Figure 4).

The surveyors did not detect nest parasitic brown-headed cowbirds during any of the focused surveys. Appendix B includes a list of all wildlife species observed or detected during focused LBVI surveys.

## 5.0 CONCLUSION AND RECOMMENDATIONS

Focused surveys were conducted according to agency-accepted protocol guidelines for LBVI during the 2024 breeding season. The surveyors did not detect LBVI in the Project Site during the focused surveys. A portion of the suitable LBVI habitat within the Survey Area was removed by an unknown entity before the protocol LBVI surveys were complete. Due to the lack of LBVI detection during the 2024 protocol surveys, ECORP presumes that LBVI are absent from the Survey Area at this time.

Additionally, the surveyors recorded two yellow warbler observations within the Project Site during the focused LBVI protocol surveys. The Western Riverside MSHCP considers yellow warbler to be adequately conserved, which means that the detection of this species does not trigger any additional protection measures under the MSHCP. However, yellow warbler is a CDFW SSC and is protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 Code of Federal Regulations Part 10. In addition to the MBTA, CDFW (formerly California Department of Fish and Game) enforces the protection of non-game native birds. Fish and Game Code Sections 3503, 3503.5, and 3800 mandate the protection of California non-game native birds' nests. Therefore, the Proposed Project would need to avoid impacts to yellow warbler (if nesting). In addition to yellow warbler, several native bird species have the potential to nest in the Project Site. ECORP recommends that focused pre-construction surveys for nesting birds, including special-status species, be conducted no more than three days prior to ground disturbance or vegetation removal activities and with a 500-foot buffer to ensure that Project activities do not cause direct or indirect impacts to active bird nests.

If you have any questions regarding the contents of this report, please contact me at (909) 307-0046 or [sdunn@ecorpconsulting.com](mailto:sdunn@ecorpconsulting.com).

SIGNED:



Shelby Dunn  
Associate Biologist

Date:

July 19, 2024

## 6.0 REFERENCES CITED

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## **LIST OF APPENDICES**

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Appendix A – Representative Site Photographs

Appendix B – Wildlife Species List

Appendix C – Survey Datasheets

## **APPENDIX A**

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Representative Site Photographs



**Photograph 1. Representative Photograph of the Disturbed Gooding's Willow-Red Willow Riparian Woodland; Facing North.**



**Photograph 2. Photograph of the Parking Lot at the Northern End of the Disturbed Fremont Cottonwood Forest and Woodland where Biologists Surveyed from behind a Wall for Safety; Facing South.**



**Photograph 3. Representative Photograph of the Disturbed Fremont Cottonwood Forest and Woodland from the South, Surveyed at a Distance for Safety; Facing North.**



**Photograph 4. Representative Photograph of the Disturbed Sandbar Willow Thickets before the Habitat was Removed; Facing Northwest.**



**Photograph 5. Representative Photograph of the Removed Disturbed Sandbar Willow Thicket Habitat Taken on June 13, 2023 Facing Northwest.**



**Photograph 6. Representative Photograph of the Removed Disturbed Sandbar Willow Thicket Habitat Taken from a Distance with Trimmed Grasses Visible on June 13, 2023 Facing North.**



**Photograph 7. Location of the Active Bushtit, Taken Facing East.**



**Photograph 8. Photograph of the Active Bushtit Nest, Taken Facing East.**

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**APPENDIX B**

Wildlife Species List

Wildlife Species List

SCIENTIFIC NAME	COMMON NAME
<b>BIRDS</b>	
<b>Accipitridae</b>	<b>Hawks, Kites, &amp; Eagles</b>
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Buteo lineatus</i>	red-shouldered hawk
<b>Aegithalidae</b>	<b>Bushtits</b>
<i>Psaltriparus minimus</i>	bushtit
<b>Anatidae</b>	<b>Ducks</b>
<i>Branta canadensis</i>	Canada goose
<b>Apodidae</b>	<b>Swifts</b>
<i>Aeronautes saxatalis</i>	white-throated swift
<b>Bombycillidae</b>	<b>Waxwings</b>
<i>Bombycilla cedrorum</i>	cedar waxwing
<b>Cardinalidae</b>	<b>Cardinals &amp; Allies</b>
<i>Pheucticus melanocephalus</i>	black-headed grosbeak
<b>Columbidae</b>	<b>Pigeons and Doves</b>
<i>Columba livia*</i>	rock pigeon
<i>Streptopelia decaocto*</i>	Eurasian collared-dove
<i>Zenaida macroura</i>	mourning dove
<b>Corvidae</b>	<b>Jays and Crows</b>
<i>Corvus brachyrhynchos</i>	American crow
<b>Emberizidae</b>	<b>Towhees and Sparrows</b>
<i>Melospiza crissalis</i>	California towhee
<b>Falconidae</b>	<b>Falcons</b>
<i>Falco sparverius</i>	American kestrel
<b>Fringillidae</b>	<b>Finches</b>
<i>Haemorhous mexicanus</i>	house finch
<i>Spinus psaltria</i>	lesser goldfinch
<b>Hirundinidae</b>	<b>Swallows</b>

Wildlife Species List

SCIENTIFIC NAME	COMMON NAME
<i>Stelgidopterus serripennis</i>	northern rough-winged swallow
<b>Icteridae</b>	<b>Blackbirds &amp; Orioles</b>
<i>Icterus cucullatus</i>	hooded oriole
<b>Laridae</b>	<b>Gulls, Terns, and Skimmers</b>
<i>Larus occidentalis</i>	western gull
<b>Mimidae</b>	<b>Mockingbirds and Thrashers</b>
<i>Mimus polyglottos</i>	northern mockingbird
<b>Parulidae</b>	<b>New World Warblers</b>
<i>Setophaga petechia</i> <sup>SSC, COV</sup>	yellow warbler
<b>Passeridae</b>	<b>Old World Sparrows</b>
<i>Passer domesticus</i> *	house sparrow
<b>Picidae</b>	<b>Woodpeckers and Allies</b>
<i>Dryobates nuttallii</i>	Nuttall's woodpecker
<b>Sturnidae</b>	<b>Starlings</b>
<i>Sturnus vulgaris</i> *	European starling
<b>Trochilidae</b>	<b>Hummingbirds</b>
<i>Calypte anna</i>	Anna's hummingbird
<i>Selaphorus sasin</i>	Allen's hummingbird
<b>Troglodytidae</b>	<b>Wrens</b>
<i>Troglodytes aedon</i>	house wren
<b>Tyrannidae</b>	<b>Tyrant flycatchers</b>
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	say's phoebe
<i>Tyrannus vociferans</i>	Cassin's kingbird
<b>MAMMALS</b>	
<b>Canidae</b>	<b>Dogs, Wolves, and Foxes</b>
<i>Canis latrans</i> COV	coyote

Wildlife Species List

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<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>
<b>Sciuridae</b>	<b>Squirrels</b>
<i>Otospermophilus beecheyi</i>	California ground squirrel

Notes: \* = non-native species; COV = MSHCP Covered Species; SSC = CDFW Species of Special Concern

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## **APPENDIX C**

Survey Datasheets

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 04/23/24  
Survey number: 1

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:	SURVEY CONDITIONS				
Carla Morriner Shelby Dunn	Time	Temp (F)	Wind (mph)	% Cloud Cover	
	START	0745	55	0-3	100
	END	0955	60	0-1	100

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)

none observed

<sup>†</sup>Draw/denote territory or use area on aerial map  
\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 04/23/24

Project # 2022-112.006

Survey number: 1

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

*none observed*

**INCIDENTAL SPECIES OBSERVED**

BU SH  
HO FI  
CA IC  
NO MO  
AT FI  
HO OR  
AN HU  
MO DO  
HO SP  
LE GO  
AM CR  
BL PH  
AL HU  
SA PH  
WE GU

*california ground squirrel*

**ADDITIONAL NOTES:**

*N/A*



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 05/03/24

Project # 2022-112.006

Survey number: 2

Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:	SURVEY CONDITIONS				
Shelby Dunn Christopher Uminski	Time	Temp (F)	Wind (mph)	% Cloud Cover	
	START	0745	60	0-1	100
	END	1020	65.7	0-1	100

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map

\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 05/03/24

Project # 2022-112.006

Survey number: 2

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

YEWA (IIS 476105 3755072)

**INCIDENTAL SPECIES OBSERVED**

CAKI LEGW  
EUST ALHU  
HOFI NOMO  
ANHU BHGR  
AMCR  
BUSH YEWA (IIS 476105 3755072)  
SAPH HOOR  
WEGU HOSP  
RSHA coyote  
MODO

**ADDITIONAL NOTES:**



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 05/13/24  
Survey number: 3

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:
Smelby Dunn Freddie Olmos

SURVEY CONDITIONS				
	Time	Temp (F)	Wind (mph)	% Cloud Cover
START	0720	57.1	1-2	100
END	0950	70	1-3	5

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map  
\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 05/13/24

Project # 2022-112.006

Survey number: 3

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

None observed

**INCIDENTAL SPECIES OBSERVED**

HOFI	HOWR
WEGU	HPOR
BUSH	BLPH
AMCR	california ground squirrel
SA-PH	
ANHU	
CEDW	
LEGO	
MUDO	
AMKE	
EUST	
ALHU	
BHGR	
NOMO	
CALT	
HOSP	

**ADDITIONAL NOTES:**

N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 05/23/24  
Survey number: 4

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:	SURVEY CONDITIONS				
Snelby Dunn Christopher Uminski	Time	Temp (F)	Wind (mph)	% Cloud Cover	
	START	0700	56.4	0-1	100
	END	0910	60	1-3	100

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
<p style="font-size: 2em; color: blue;">None observed</p>				

<sup>†</sup>Draw/denote territory or use area on aerial map  
<sup>\*</sup>Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 15/23/24

Project # 2022-112.006

Survey number: 4

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

active bush-tit nest (115 476175, 3755555)

**INCIDENTAL SPECIES OBSERVED**

RTHA  
HOFI  
BUSH  
AMKE  
ANHU  
SAPH  
AMCR  
ALHU  
BLPH  
LEGO  
MODO  
CANG  
HOOR  
HOSP  
ATFL  
NOMU

california ground squirrel

**ADDITIONAL NOTES:**

homeless encampments in all 3 survey areas

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 06/03/24

Survey number: 5

Project # 2022-112.006

Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:
Snelby Dunn Christopher II

SURVEY CONDITIONS				
	Time	Temp (F)	Wind (mph)	% Cloud Cover
START	0700	59.0	0-1	100
END	0925	62.8	0-1	100

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map  
\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	NIA



### LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM

Date: 06/03/24  
Survey number: 5

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

#### OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)

YEWA (115 476182 3755494)

#### INCIDENTAL SPECIES OBSERVED

HOFI  
AMKE  
AMCR  
ANHU  
BUSH  
NRWS  
SAPH  
LEGO  
HOSP  
YEWA  
WTSW  
NOMO  
HOOR  
MODO  
YEWA

#### ADDITIONAL NOTES:

N/A

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 06/13/24  
Survey number: 6

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:	SURVEY CONDITIONS				
Shelby Dunn Carla Marriner	Time	Temp (F)	Wind (mph)	% Cloud Cover	
	START	0710	60	1-3	100
	END	0850	68	0-1	100

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map  
\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 06/13/24  
Survey number: 6

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)
none observed

INCIDENTAL SPECIES OBSERVED
HOFI BUSIT ANHU LEGO HDOR MODD HOSP BLPH NOMB SAPIT CAKI ENST ALHU HOWR AMCR

ADDITIONAL NOTES:
sandbar willow thicket, at the southern end of project, has been removed since the last survey. Appears to be related to weed abatement - tall grasses in the area have been cut back and mowed

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 06/24/24  
Survey number: 7

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:
Snelby Dunn Carter Warwick Justin Stuart

SURVEY CONDITIONS				
	Time	Temp (F)	Wind (mph)	% Cloud Cover
START	0645	75	0-1	10
END	0835	81	0-1	15

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map  
\*Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 06/24/24

Project # 2022-112.006

Survey number: 7

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

N/A

**INCIDENTAL SPECIES OBSERVED**

HOFI  
AMCR  
BUSIT  
EUST  
MODO  
EUCD  
ANHU  
LEGO  
BLPH  
HOSP  
ALHU  
NOMO  
SAPH  
AMKE  
H00R  
ROPI

**ADDITIONAL NOTES:**

N/A

**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 07103124  
Survey number: 8

Project # 2022-112.006  
Project Name Sunnymead MD-Storm Drain Lines F/F7

OBSERVERS:	SURVEY CONDITIONS			
Corrina Tapia Shelby Dunn	Time	Temp (F)	Wind (mph)	% Cloud Cover
	START	0615	73	0-1
	END	0800	82	0-1

LEAST BELL'S VIREO OBSERVATIONS				
Location <sup>†</sup> (UTM NAD 83)	Approx. Age	Status*	Band (Y/N)	Additional Comments (Behavior, Activity, Location in Canopy, etc.)
None observed				

<sup>†</sup>Draw/denote territory or use area on aerial map  
<sup>\*</sup>Paired, territorial male, single individual, juvenile

BROWN-HEADED COWBIRD OBSERVATIONS	
# of individuals	0
Locations	N/A



**LEAST BELL'S VIREO (*Vireo bellii pusillus*) SURVEY FORM**

Date: 07/03/24

Project # 2022-112.006

Survey number: 8

Project Name Sunnymead MD-Storm Drain Lines F/F7

**OTHER SENSITIVE SPECIES OBSERVATIONS (SWWF, YBCH, YEWA, ETC.)**

none observed

**INCIDENTAL SPECIES OBSERVED**

ANHU  
HOF1  
BUSH  
HDSP  
AMCR  
HDOOR  
NUWO  
MODO  
BLPH  
LEGO  
EUCD  
NOMO  
ROPI  
california ground squirrel

**ADDITIONAL NOTES:**

domestic cats present within drainage south of sunnymead Blvd