

APPENDIX F

*2016 Focused Least Bell's Vireo
and Southwestern Willow Flycatcher*

October 25, 2016

9420-03

Recovery Permit Coordinator
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: 2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program North City Project, County of San Diego, California

Dear Recovery Permit Coordinator:

This report documents the results of protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's Vireo (*Vireo bellii pusillus*; vireo) and the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*; flycatcher). The surveys were conducted in support of the Pure Water San Diego Program North City project (North City Project), located in the County of San Diego, California. The North City Project is the first phase of the City of San Diego's Public Utilities Department (PUD) proposed program to provide a safe, secure, and sustainable local drinking water supply for San Diego. The North City Project consists of the design and construction of a new advanced water treatment facility, expansion of a wastewater treatment facility, pump stations, transmission lines, and pipelines. The North City Project site contains approximately 147.3 acres of potentially suitable vireo and flycatcher habitat that were surveyed in 2016.

The vireo and flycatcher are closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

North City Project pipelines extend from the Cities of San Diego, Santee, and the community of Lakeside in unincorporated San Diego County, in addition to federal lands within MCAS Miramar (Figure 1, Regional Map). The site occupies portions of Township 14 South, Range 1 East, projected Sections 30 and 31; Township 14 South, Range 1 West, projected Sections 25 and 36; Township 14 South, Range 2 West, projected Sections 32, and 33; Township 15 South, Range 1 East, projected Sections 6 and 18; Township 15 South, Range 1 West, projected

Sections 1, 23 and 30; Township 15 South, Range 2 West, projected Sections 6, 25, 29, 30, 31, 32, 33, 35 and 36; Township 15 South, Range 3 West, projected Sections 9, 10, 11, 16, 17, 20, 25, 26, and 28; Township 16 South, Range 2 West, projected Sections 1, 2, 3, and 4; and Township 16 South, Range 3 West, projected Section 9 on the San Vicente Reservoir, El Cajon, La Mesa, Poway, La Jolla, and Del Mar U.S. Geological Survey 7.5 minute quadrangle maps (Figure 2, Vicinity Map).

Elevations range from about 94 feet above mean sea level in the southwestern portion of Pure Water Program area to approximately 688-feet above mean sea level.

Soils on site consist of acid igneous rock land; Altamont clay; Carlsbad-Urban Land complex, Chesterton fine sandy loam; Chesterton-Urban Land complex; Cieneba rocky and very rocky coarse sandy loam, Cieneba-Fallbrook rocky sandy loam; Diablo clay; Diablo-Olivenhain complex; Diablo-Urban land complex; Fallbrook sandy loam; Fallbrook-Vista sandy loam; Friant rocky fine sandy loam; Gaviota fine sandy loam; gravel pits; Huerhuero loam; metamorphic rock land; Olivenhain cobbly loam; Ramona sandy loam; Redding cobbly and gravelly loam; Redding-Urban land complex; riverwash; Salinas clay loam; stony land; terrace escarpments; Tujunga sand; and Visalia sandy loam (USDA 2016).

VEGETATION COMMUNITIES

Based on species composition and general physiognomy, 13 vegetation communities were identified on the Pure Water Program site and off-site mapping areas (Figure 3, Vegetation Communities). Their acreages are presented in Table 1. Approximately 147.3 acres of vireo- and flycatcher-suitable habitat were mapped on the Project site according to Oberbauer et al. (2008).

Vegetation acreages are presented in Table 1, and primary constituent element habitats suitable for vireo and flycatcher are described following the table.

Table 1
Vireo and Flycatcher-Suitable Vegetation Communities on the
Pure Water Program Site

Vegetation Community	Acres
Arundo-Dominated Riparian	7.5
disturbed Mulefat Scrub	1.9
disturbed Southern Willow Scrub	4.1
Mulefat Scrub	6.5
Southern Arroyo Willow Riparian Forest	29.1
Southern Coast Live Oak Riparian Forest	3.6

Table 1
Vireo and Flycatcher-Suitable Vegetation Communities on the
Pure Water Program Site

Vegetation Community	Acres
Southern Cottonwood-Willow Riparian Forest	26.1
Southern Riparian Forest	6.8
Southern Sycamore-Alder Riparian Woodland	8.1
Southern Willow Scrub	53.6
Total	147.3

Arundo-Dominated Riparian

Arundo-dominated riparian is densely vegetated riparian thickets dominated by giant reed (*Arundo donax*) (Oberbauer et al. 2008). Arundo-dominated riparian primarily occurs along major rivers in coastal Southern California, including Otay River, Sweetwater River, San Diego River, San Dieguito River, and San Luis Rey River.

Mulefat Scrub (including Disturbed forms)

Mulefat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mulefat (*Baccharis salicifolia*). This early seral community is maintained by frequent flooding. Site factors include intermittent stream channels with fairly coarse substrate and moderate depth to the water table (Oberbauer et al. 2008). This community type is widely scattered along intermittent streams and near larger rivers.

Areas mapped as mulefat scrub within the Project Area are dominated by mulefat and are typically found along drainages that receive intermittent water throughout the year.

Disturbed mulefat scrub was mapped where 50% or more of the vegetation cover was dominated by non-native vegetation.

Southern Arroyo Willow Riparian Woodland

Southern arroyo willow riparian woodland is described by Oberbauer et al. (2008) as a dense, low, closed-canopy broad-leaved, winter-deciduous woodland dominated by arroyo willow (*Salix lasiolepis*). Arroyo willow generally grows as a large, tree-like shrub. Characteristic species include white alder (*Alnus rhombifolia*), California wax myrtle (*Myrica californica*), and Pacific willow (*Salix lasiandra*).

Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forest is a dense riparian forest dominated by coast live oak (*Quercus agrifolia*), often with an herbaceous understory. This community occurs along the bottom or outer slopes of larger streams (Oberbauer et al. 2008). Areas mapped as oak riparian forest are dominated by coast live oak.

Southern Cottonwood-Willow Riparian Forest

Southern cottonwood-willow riparian forest is dominated by deciduous trees species: Fremont cottonwood (*Populus fremontii*) or balsam poplar (*Populus trichocarpa*), and various willow trees (*Salix* spp.) (Oberbauer et al. 2008). The shrub layer typically includes various willow species (Oberbauer et al. 2008).

Southern Riparian Forest

Southern riparian forest is a dense riparian forest dominated by western sycamore (*Platanus racemose*), *Populus* species, and other wetland plants (Oberbauer et al. 2008). Southern riparian forests are primarily found along streams and rivers.

Southern Sycamore–Alder Riparian Woodland

Southern sycamore–alder riparian woodland is described by Oberbauer et al. (2008) as a tall, open, broad-leaved, winter-deciduous streamside woodland dominated by well-spaced western sycamore and often also white alder. Seldom forming closed canopy forests, these stands may appear as trees scattered in a shrubby thicket of sclerophyllous (i.e., evergreen) and deciduous species and are subject to seasonally high-intensity flooding. Characteristic species of this habitat type include California mugwort (*Artemisia douglasiana*), coast live oak, California blackberry (*Rubus ursinus*), California laurel (*Umbellularia californica*), and giant stinging nettle (*Urtica holosericea*).

Southern Willow Scrub (including Disturbed forms)

Southern willow scrub is a dense, broad-leaved, winter-deciduous riparian thicket dominated by several species of willow (*Salix* spp.) that occurs on loose, large-grained alluvium along stream channels. The closed canopy inhibits the development of a diverse understory. It may contain scattered Fremont's cottonwood and western sycamore trees emerging above the willow canopy and requires repeated flooding to avoid succession to a community dominated by these trees (Oberbauer et al. 2008).

On site, southern willow scrub occurs in patches dominated by arroyo willow (*Salix lasiolepis*) and black willow, with an understory of mulefat (*Baccharis salicifolia*).

Disturbed southern willow scrub was mapped where 50% or more of the vegetation cover was dominated by non-native vegetation.

METHODS

Suitable habitat areas within the study area were surveyed eight times for vireo and five times for flycatcher. Flycatcher-permitted Dudek wildlife biologists Paul M. Lemons (Permit #TE051248), Brock A. Ortega (Permit # TE813545-6), Jeff D. Priest (Permit # TE840619-3), and Anita M. Hayworth (Permit # TE781084-8) conducted all combined flycatcher/vireo surveys, while qualified Dudek biologists Callie J. Ford, Patricia Schuyler, Erin Bergman, and Marshall Paynard conducted vireo surveys on some visits (Table 2). Only flycatcher-permitted biologists used audio-playback techniques to elicit flycatcher responses. Focused surveys for these species were initiated on April 25, 2016, and continued through July 31, 2016.

Table 2
Vireo and Flycatcher Survey Schedule and Conditions

Survey Pass #/ Focus	Date	Hours	Personnel	Survey Area	Conditions (temperature, cloud cover, wind speed)
1-LBVI	2016-04-25	6:51 AM–9:52 AM	PS	3	57–61°F; 70–80% cc; 0-2 to 0-1 mph wind
1-LBVI	2016-04-27	6:02 AM–11:00 AM	KS	1A	55–62°F; 10–40% cc; 1-5 mph wind
1-LBVI	2016-04-28	6:02 AM–11:00 AM	KS	1B	55–58°F; 100% cc; 3-5 mph wind
1-LBVI	2016-05-04	6:28 AM–11:06 AM	CF	2	64–69°F; 0–100% cc; 0 mph wind
2-LBVI	2016-05-09	6:00 AM–10:59 AM	KS	1A	64–66°F; 90–100% cc; 2-3 mph wind
2-LBVI	2016-05-09	7:20 AM–10:16 AM	PS	3	63–68°F; 40–80% cc; 0-1 mph wind
2-LBVI	2016-05-10	6:04 AM–11:00 AM	KS	1B	64–70°F; 100% cc; 1 mph wind
2-LBVI 1-SWFL	2016-05-17	4:50 AM–10:35 AM	JP	2	57–65°F; 100% cc; 0-1 to 1-4 mph wind
3-LBVI 1-SWFL	2016-05-19	5:58 AM–10:31 AM	BO	1B	53–64°F; 100% cc; 0-1 mph wind
3-LBVI 1-SWFL	2016-05-19	5:40 AM–11:00 AM	PL	1A	56–67°F; 100% cc; 0 to 1-4 mph wind
1-SWFL	2016-05-19	5:54 AM–11:09 AM	AH	3	61–75°F; 30–100% cc; 2-3 mph wind
3-LBVI 2-SWFL	2016-06-01	5:00 AM–11:00 AM	JP	2	54–65°F; 100% cc; 0-1 to 1-4 mph wind
2-SWFL	2016-06-02	5:04 AM–10:08 AM	AH	3	57–75°F; 0% cc; 2-3 mph wind

Recovery Permit Coordinator

Subject: 2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program North City Project, County of San Diego, California

Table 2
Vireo and Flycatcher Survey Schedule and Conditions

Survey Pass #/ Focus	Date	Hours	Personnel	Survey Area	Conditions (temperature, cloud cover, wind speed)
4-LBVI 2- SWFL	2016-06-03	5:50 AM–11:00 AM	PL	1A	58–76°F; 0–100% cc; 0-1 to 2-5 mph wind
4-LBVI 2- SWFL	2016-06-04	6:03 AM–10:50 AM	BO	1B	63–85°F; 70% cc; 0-1 mph wind
3-LBVI	2016-06-06	7:25 AM–10:15 AM	PS	3	64–72°F; 10–100% cc; 0-2 mph wind
5-LBVI 3- SWFL	2016-06-16	5:50 AM–11:00 AM	PL	1A	62–79°F; 0–10% cc; 0-1 to 1-4 mph wind
4-LBVI	2016-06-17	6:57 AM–10:05 AM	PS	3	64–79°F; 0–10% cc; 0-2 mph wind
5-LBVI 3- SWFL	2016-06-17	5:14 AM–10:32 AM	BO	1B	60–75°F; 20% cc; 0 mph wind
4-LBVI 3- SWFL	2016-06-17	5:00 AM–11:00 AM	JP	2	50–85°F; 0–10% cc; 0-2 to 1-3 mph wind
3- SWFL	2016-06-17	5:08 AM–10:09 AM	AH	3	64–75°F; 30–70% cc; 2-3 mph wind
6-LBVI	2016-06-26	6:08 AM–11:02 AM	MP	1A	66–80°F; 0–10% cc; 1-2 mph wind
6-LBVI	2016-06-27	6:00 AM–11:02 AM	MP	1B	67–78°F; 10% cc; 1-2 mph wind
5-LBVI	2016-06-27	6:05 AM–10:46 AM	PS	3	66–82°F; 0–50% cc; 0-2 mph wind
5-LBVI 4- SWFL	2016-06-30	5:00 AM–11:00 AM	JP	2	62–80°F; 0–100% cc; 0-1 to 3-6 mph wind
4- SWFL	2016-07-01	5:33 AM–10:10 AM	AH	3	65–73°F; 0–100% cc; 2 mph wind
7-LBVI 4- SWFL	2016-07-05	5:31 AM–10:48 AM	BO	1B	65–82°F; 0–100% cc; 5 mph wind
7-LBVI 4- SWFL	2016-07-07	5:50 AM–11:00 AM	PL	1A	63–74°F; 0–100% cc; 0 to 1-5 mph wind
6-LBVI	2016-07-08	6:05 AM–10:54 AM	PS	3	64–77°F; 0–100% cc; 0-2 mph wind
6-LBVI 5- SWFL	2016-07-11	5:00 AM–11:00 AM	JP	2	64–76°F; 0–100% cc; 1-4 to 1-5 mph wind
5- SWFL	2016-07-14	5:30 AM–10:15 AM	AH	3	66–70°F; 50–100% cc; 1 mph wind
8-LBVI 5- SWFL	2016-07-15	5:53 AM–11:05 AM	BO	1B	65–77°F; 0–100% cc; 0-3 mph wind
8-LBVI 5- SWFL	2016-07-17	6:00 AM–11:00 AM	PL	1A	64–77°F; 0–100% cc; 0-1 to 2-6 mph wind
7-LBVI	2016-07-20	6:12 AM–10:39 AM	PS	3	64–82°F; 10–100% cc; 0-2 mph wind
7-LBVI	2016-07-21	6:00 AM–11:03 AM	MP	2	65–86°F; 10% cc; 1-2 to 2-3 mph wind
8-LBVI	2016-07-31	5:57 AM–11:57 AM	EB	3	69.3–85.1°F; 0–100% cc; 0-0.6 mph wind
8-LBVI	2016-07-31	6:20 AM–11:25 AM	CF	2	68–86°F; 0–100% cc; 0 mph wind

Notes: LBVI = least Bell's vireo; SWFL = Southwestern willow flycatcher; AH = Anita Hayworth; BO = Brock Ortega; CF = Callie Ford; EB = Erin Bergman; JP = Jeff Priest; KS = Kevin Shaw; MP = Marshall Paynard; PL = Paul Lemons; PS = Patricia Schuyler; cc = cloud cover; mph = miles per hour; °F = degrees Fahrenheit.

As directed by Stacey Love, United States Fish & Wildlife Service (USFWS) Recovery Permit Coordinator (via email sent on April 27, 2016), surveys for vireo and flycatcher were not conducted concurrently. Due to differences in detectability, surveys were conducted sequentially, with surveys for the flycatcher first (i.e., first thing in the morning) and surveys for the vireo conducted afterwards. Additionally, for linear survey routes within a riparian corridor: flycatchers were surveyed from the starting point to the end, and vireos were surveyed on the way back. This route was arranged to cover all suitable habitat on site (depicted on Figure 3). A vegetation map (1:2,400 scale; 1 inch=200 feet) of the study area was available to record any detected vireo or flycatcher. Binoculars (7×50, 10×42, 10×50) were used to aid in detecting and identifying wildlife species.

The five surveys conducted for flycatcher followed the currently accepted protocol (*A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* [Sogge et al. 2010]), which states that a minimum of five survey visits is needed to evaluate project effects on flycatchers. It is recommended that one survey is made between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Surveys during the final period (June 25 and July 17) were separated by at least five days. A tape of recorded flycatcher vocalizations was used, approximately every 50 to 100 feet within suitable habitat, to induce flycatcher responses. If a flycatcher had been detected, playing of the tape would have ceased to avoid harassment.

A Section 10(a)(1)(A) permit is not required to conduct presence/absence surveys for vireo. The eight surveys for vireo followed the currently accepted *Least Bell's Vireo Survey Guidelines* (USFWS, 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential vireo habitats between April 10 and July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations were not used during the surveys. Surveys were conducted between dawn and noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

Weather conditions, time of day, and season were appropriate for the detection of flycatcher and vireo (Table 2).

RESULTS

Ten (10) vireo Use Areas were observed on several occasions during the 2016 survey effort. Observed vireo use areas are defined as the specific areas of habitat that each vireo was observed

Recovery Permit Coordinator

Subject: 2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program North City Project, County of San Diego, California

utilizing throughout the 2016 survey effort. All vireos detected within the study area were adult males, either singing or directly observed, and are shown in Figures 3a through 3n. Due to the long linear project alignment and fragmented suitable habitat areas to be accessed throughout the alignment, long periods of time were not spent at each vireo location to determine behavior (i.e., paired, unpaired, breeding status) of each individual vireo.

A one-time observation of willow flycatcher (*Empidonax traillii*) was observed by biologist Brock Ortega on May 19, 2016 (Figure 3f). The flycatcher was vocal, responding to taped playback, with no breeding behavior observed during this observation. According to Sogge (2010), because this flycatcher was observed during Period 1 (May 15 to 31) was not observed again during all remaining survey visits, it is not expected to be a southwestern willow flycatcher breeding within the study area.

Sensitive species observed included coastal California gnatcatcher (*Polioptila californica californica*), a federally listed threatened species; yellow-breasted chat (*Icteria virens*), a California Department of Fish and Wildlife (CDFW) Species of Special Concern; yellow warbler (*Dendroica petechia*), a CDFW Species of Special Concern; southwestern pond turtle (*Actinemys marmorata pallida*), a CDFW Species of Special Concern; Cooper's hawk (*Accipiter cooperii*), a CDFW Watch List species; and Nuttall's woodpecker (*Picoides nuttallii*), a USFWS Bird of Conservation Concern. Sensitive species observation locations are shown in Figures 3a through 3n. Brown-headed cowbird was also detected within the study area (Figure 3m).

One hundred twenty-seven wildlife species were observed during the focused surveys. A full list of wildlife species observed during the survey is provided in Appendix A. Data forms (Sogge et al. 2010) for willow flycatcher are included as Appendix B.

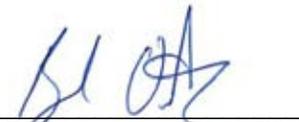
Please feel free to contact me at 760.479.4238 with questions or if you require additional information.

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

Sincerely,



Paul Lemons
Wildlife Biologist



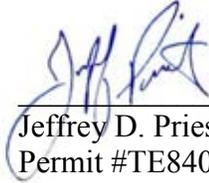
Brock Ortega
Permit #TE813545-6

Recovery Permit Coordinator

Subject: 2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program North City Project, County of San Diego, California



Anita Hayworth
Permit #TE781084-8



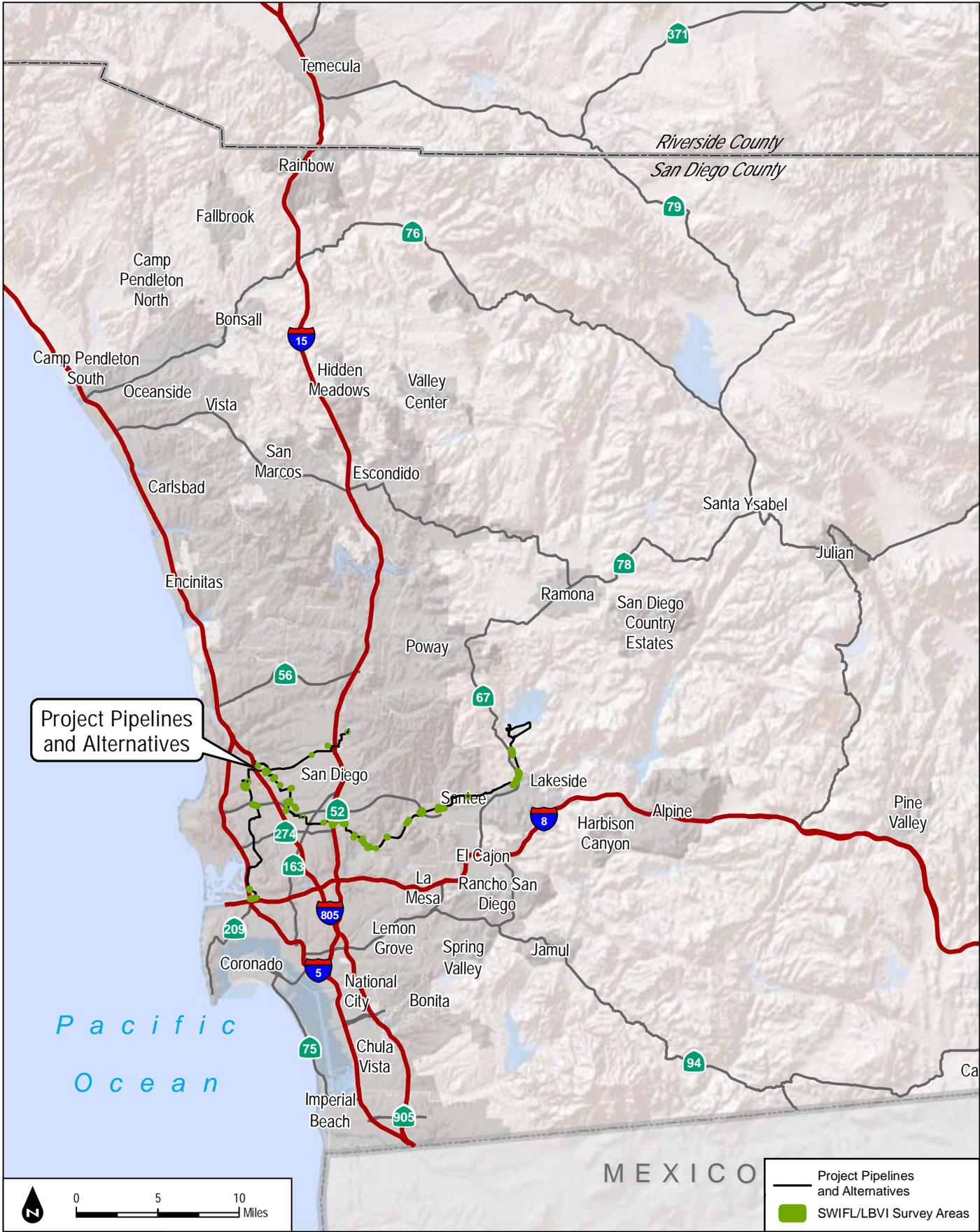
Jeffrey D. Priest
Permit #TE840619

Att: Figures 1-3n
Appendix A and B

cc: Brock Ortega

REFERENCES

- Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. March 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California", Robert F. Holland, Ph.D., October 1986.
- Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010. *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher*. U.S. Geological Survey Techniques and Methods 2A-10, 38 p.
- USDA (U.S. Department of Agriculture). 2016. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed August 2016.
<http://websoilsurvey.nrcs.usda.gov/>.
- USFWS. 2001. *Least Bell's Vireo Survey Guidelines*. January 19.

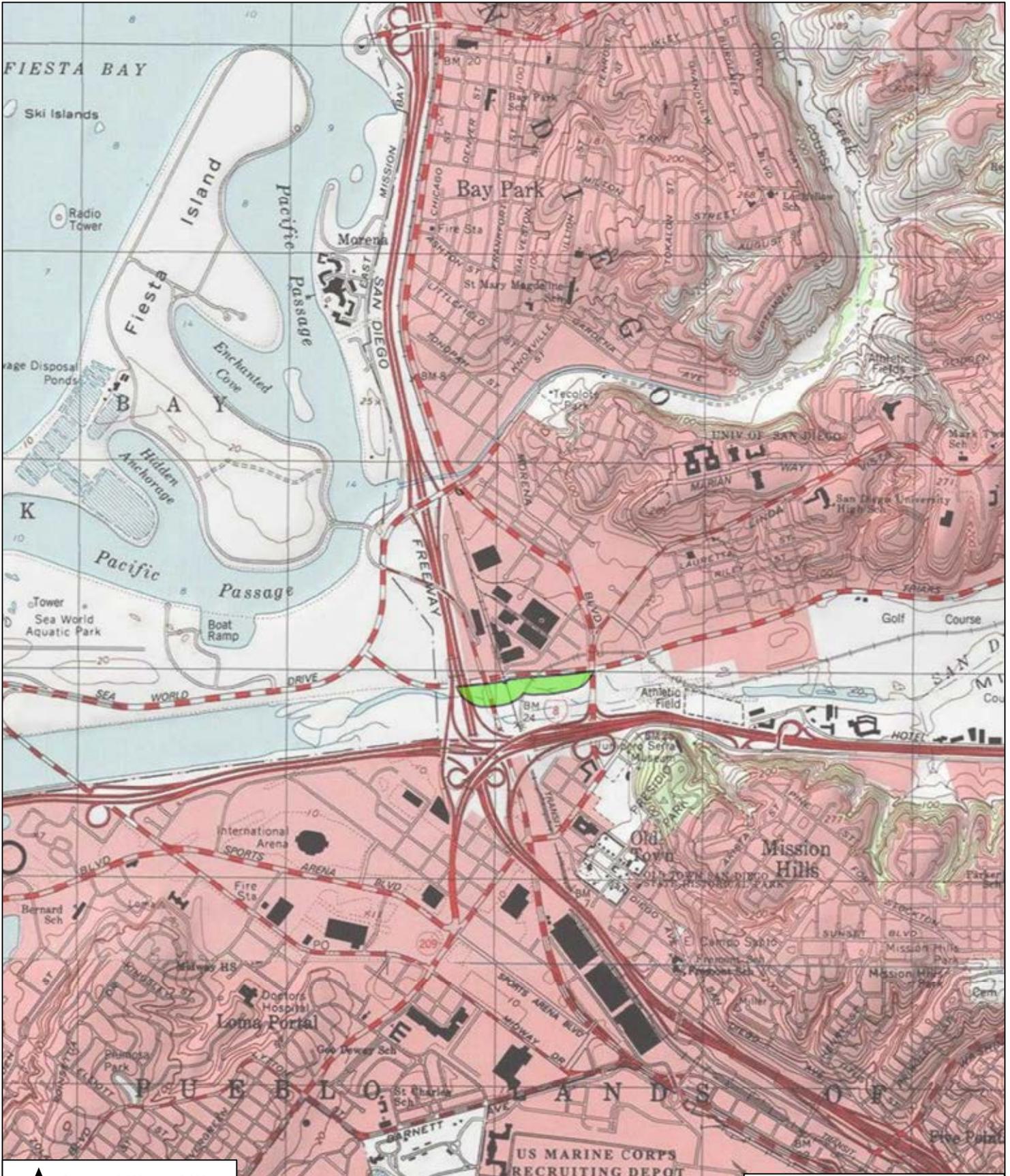


Project Pipelines and Alternatives

— Project Pipelines and Alternatives
 ● SWIFL/LBVI Survey Areas



FIGURE 1
Regional Map



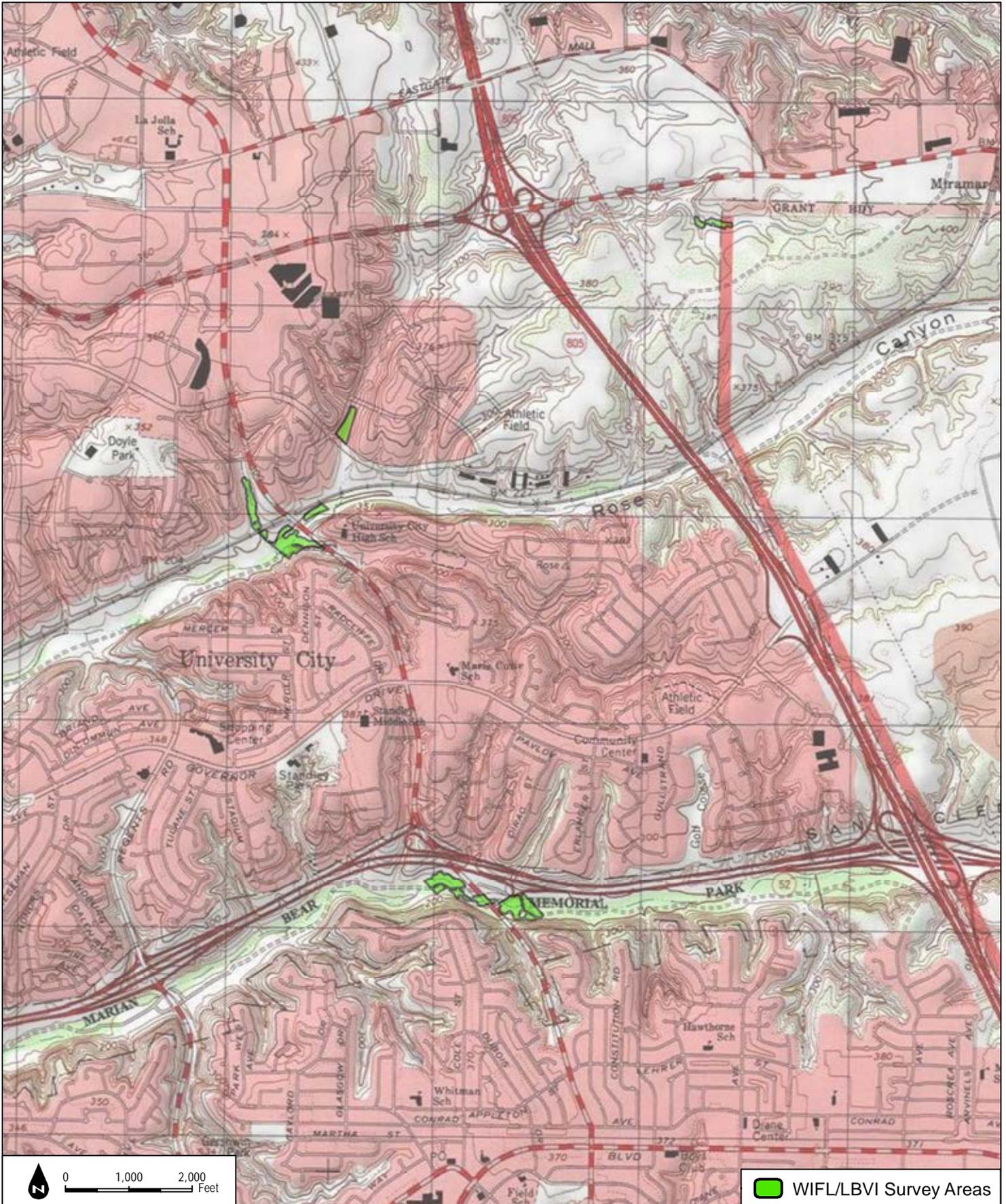
 WIFL/LBVI Survey Areas

Figure 2A
Vicinity Map

SOURCE: USGS 7.5-Minute Series La Jolla and Point Loma Quadrangles.



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California



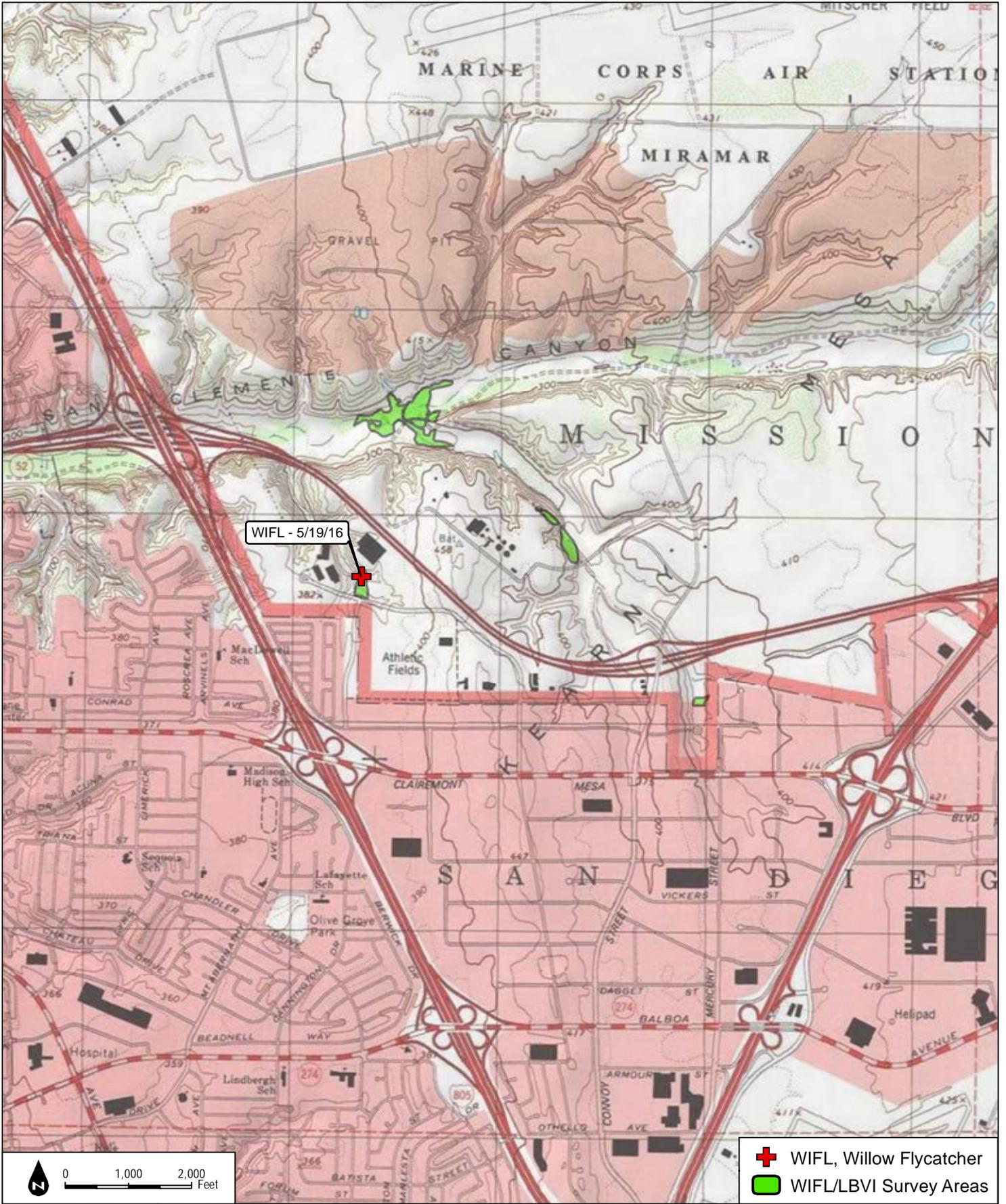
 WIFL/LBVI Survey Areas

SOURCE: USGS 7.5-Minute Series La Jolla and Del Mar Quadrangles.

Figure 2B
Vicinity Map

DUDEK

2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California



WIFL - 5/19/16

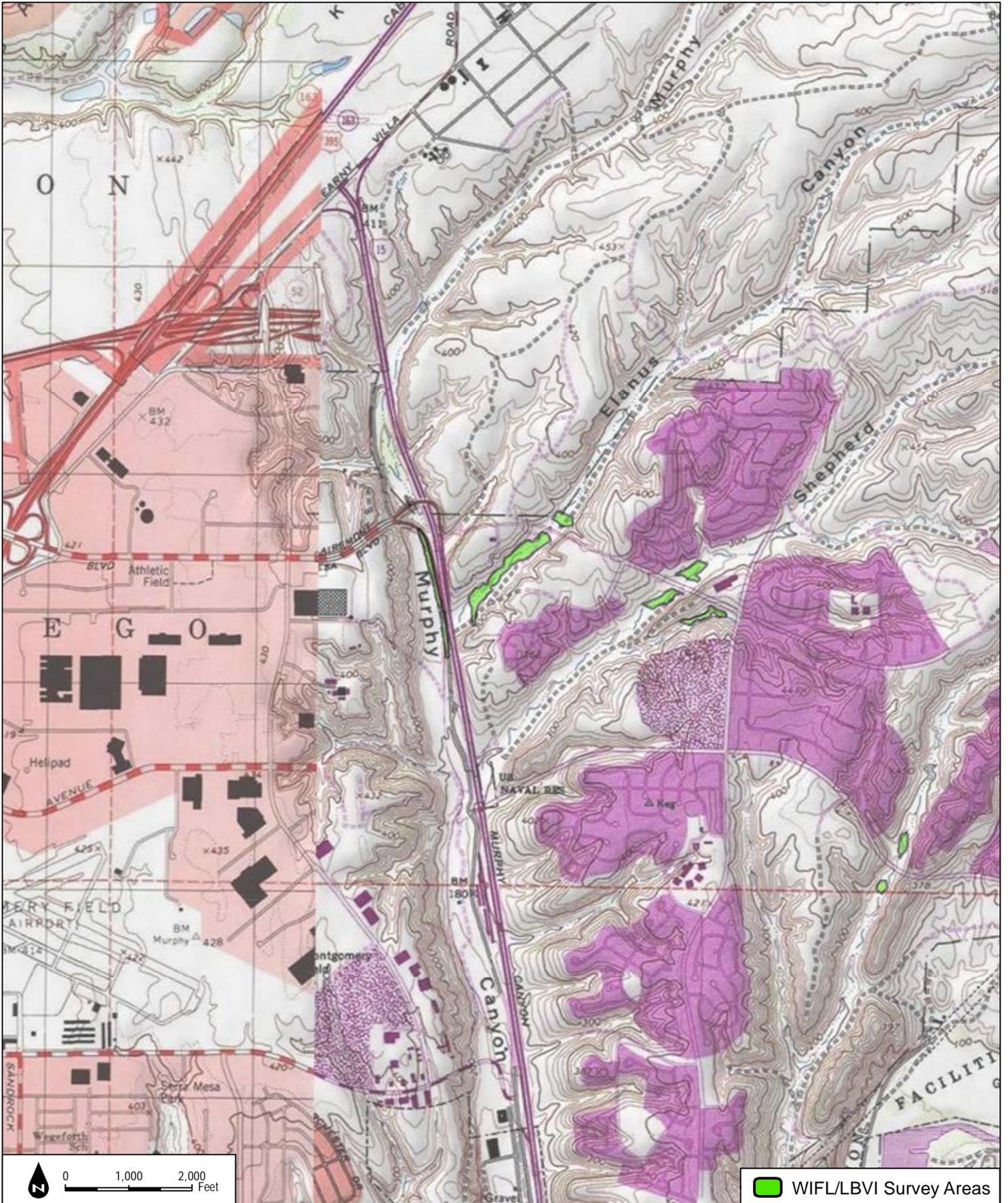
- + WIFL, Willow Flycatcher
- WIFL/LBVI Survey Areas



Figure 2C
Vicinity Map

SOURCE: USGS 7.5-Minute Series La Jolla Quadrangle.



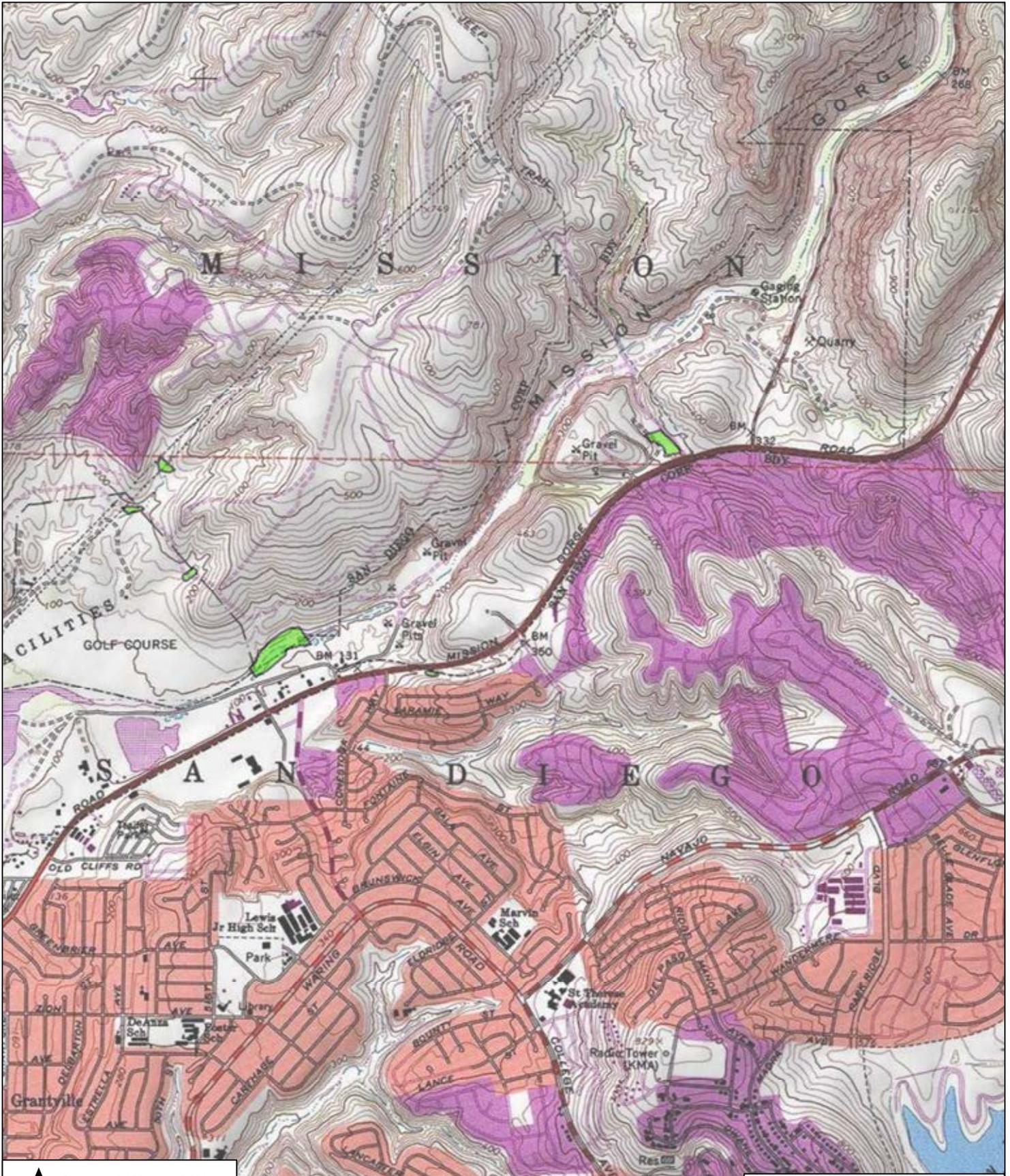


 WIFL/LBVI Survey Areas

Figure 2D
Vicinity Map

SOURCE: USGS 7.5-Minute Series La Jolla and La Mesa Quadrangles.





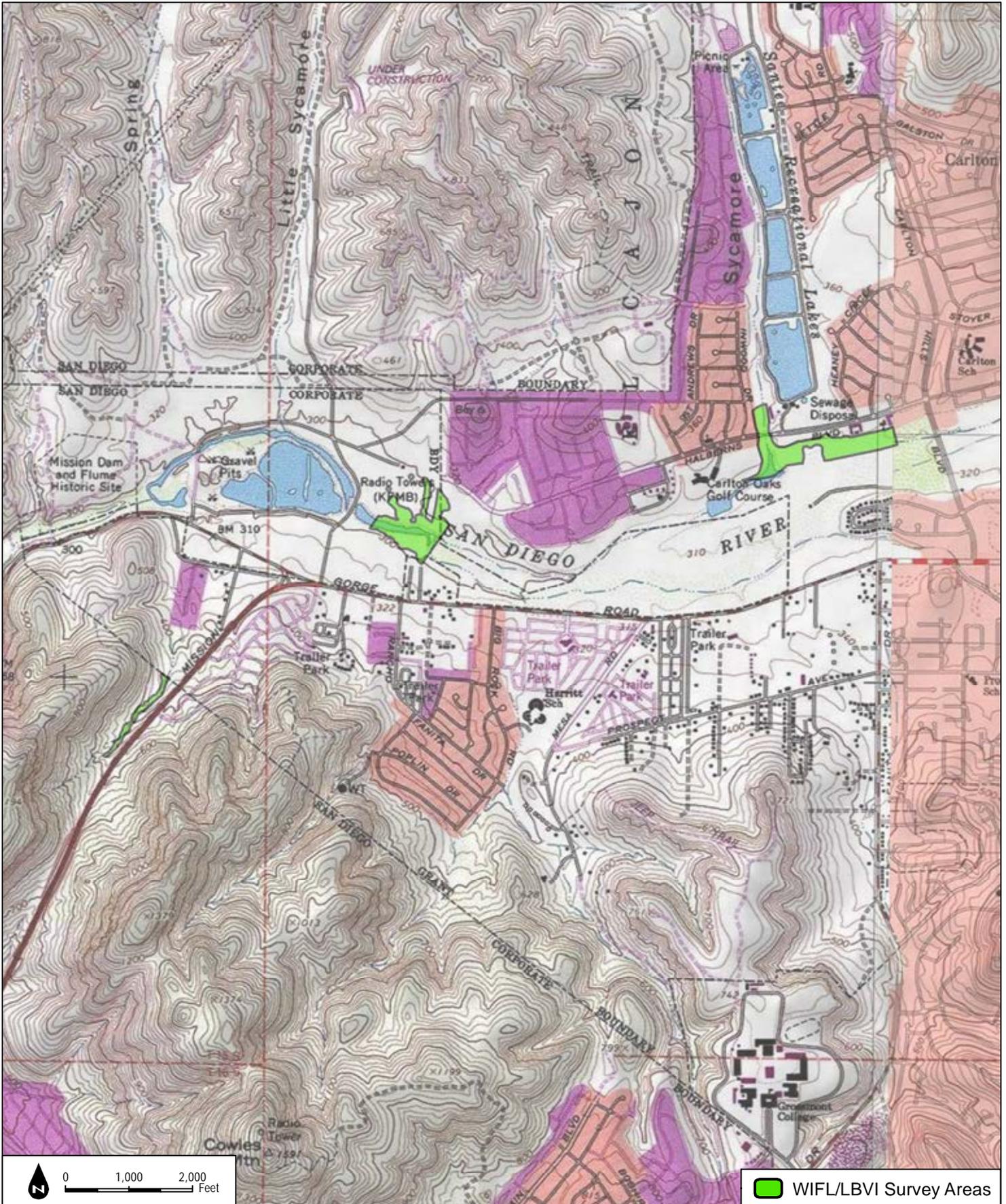
 WIFL/LBVI Survey Areas

Figure 2E
Vicinity Map

SOURCE: USGS 7.5-Minute Series La Mesa Quadrangle.



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

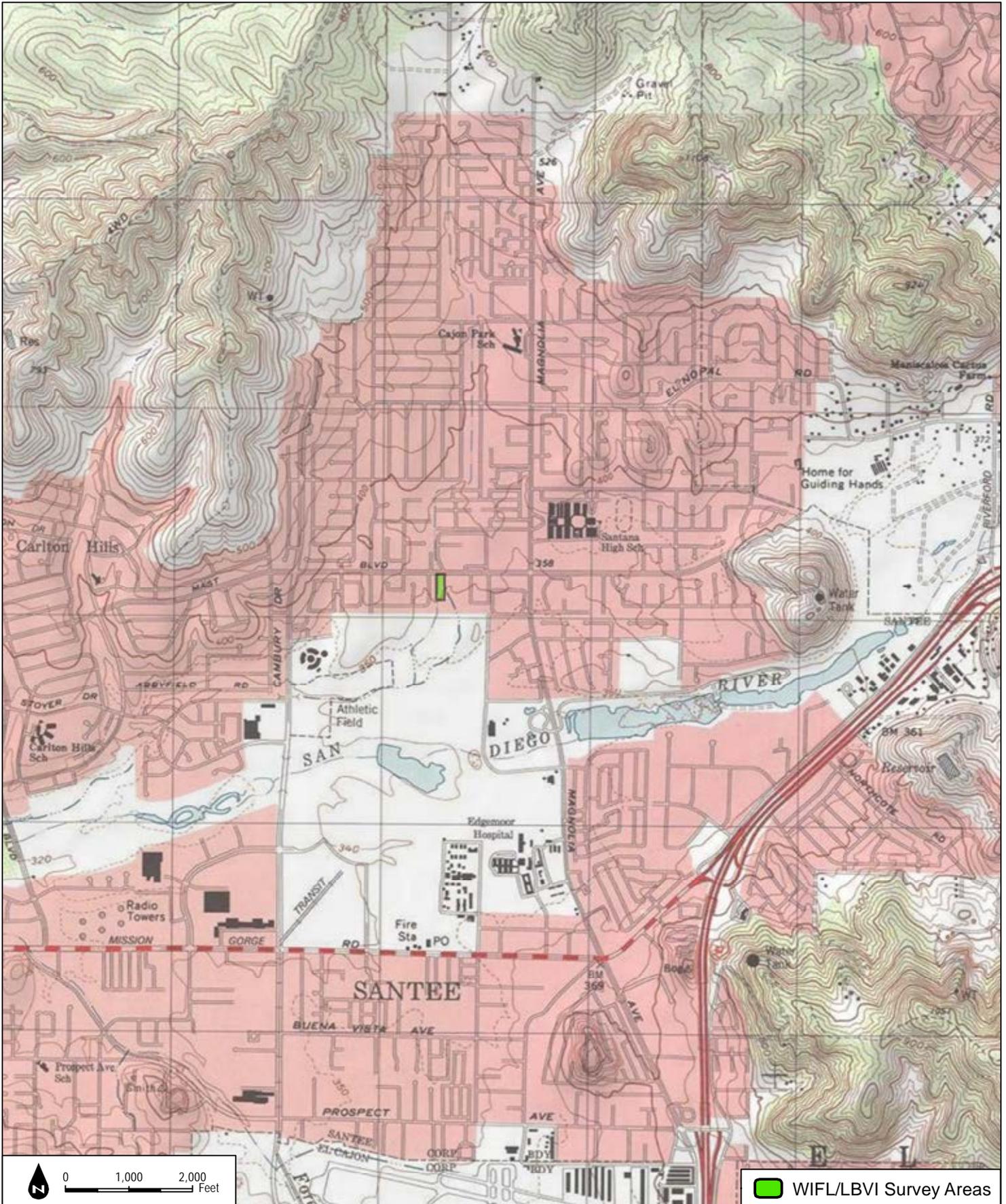


SOURCE: USGS 7.5-Minute Series La Mesa and El Cajon Quadrangles.

Figure 2F
Vicinity Map

DUDEK

2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

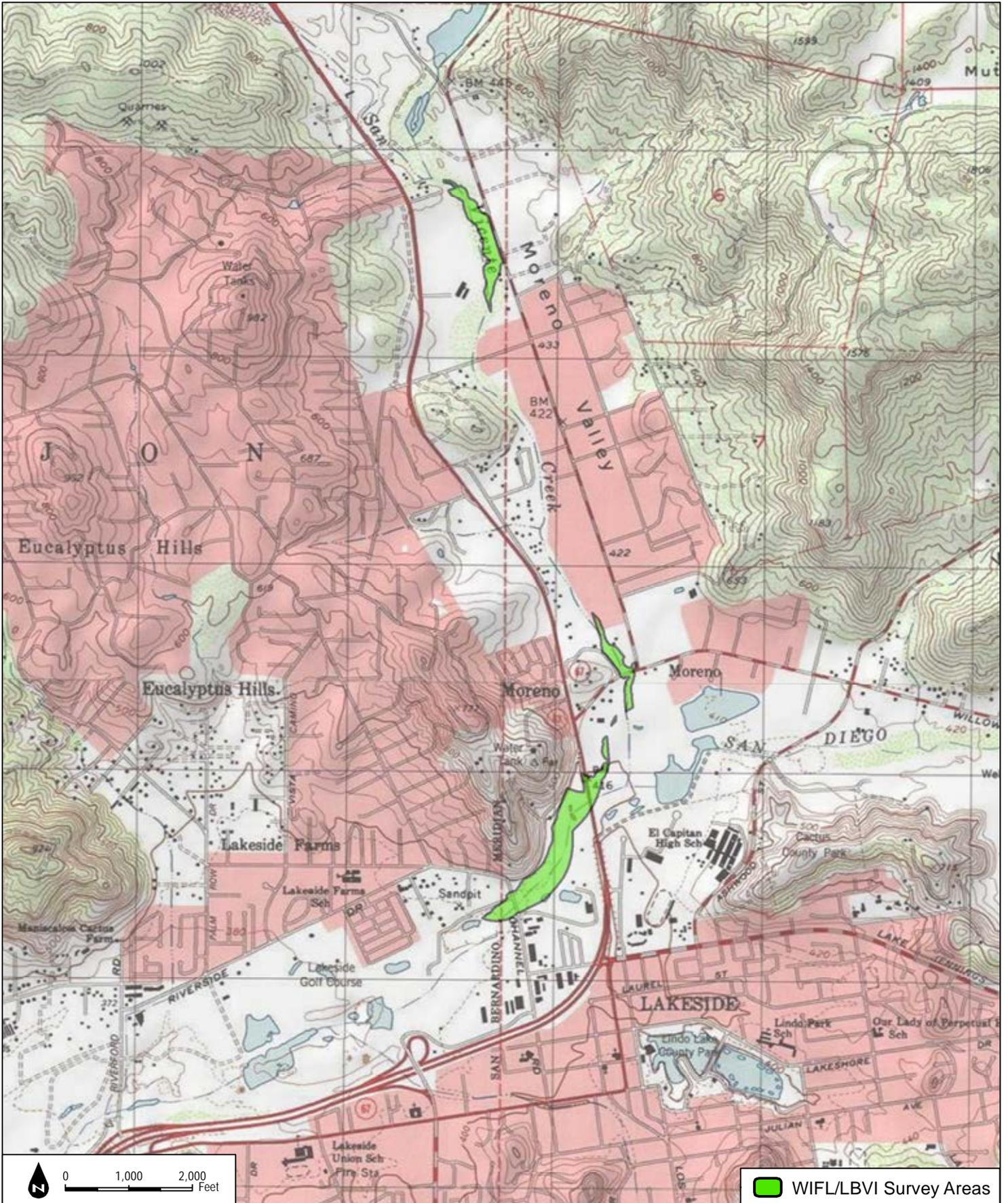


SOURCE: USGS 7.5-Minute Series San Vicente Reservoir and El Cajon Quadrangles.

Figure 2G
Vicinity Map

DUDEK

2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

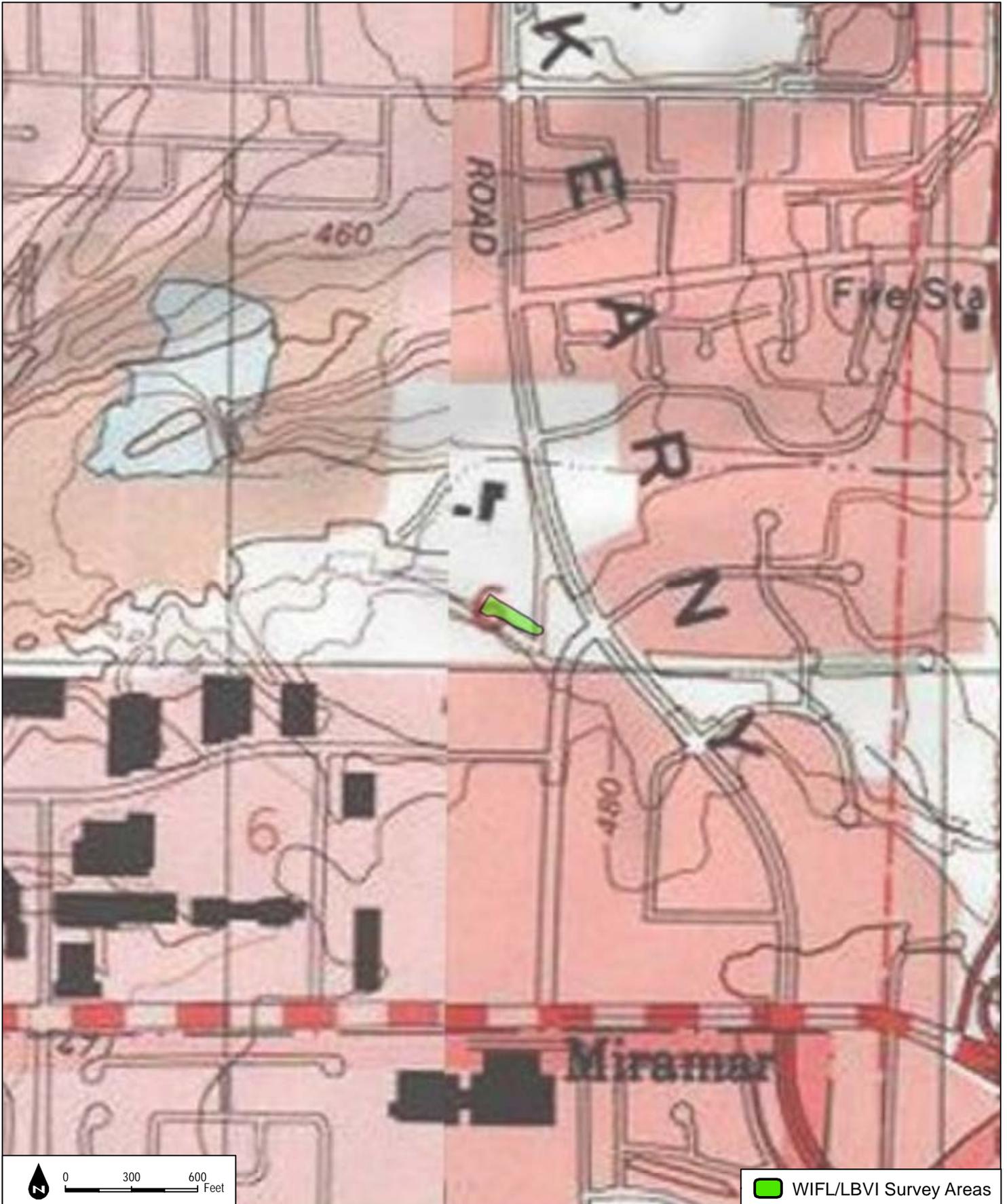


SOURCE: USGS 7.5-Minute Series San Vicente Reservoir and El Cajon Quadrangles.

Figure 2H
Vicinity Map

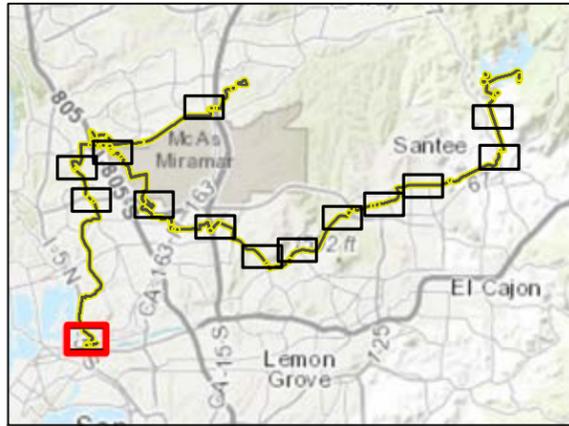
DUDEK

2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California



SOURCE: USGS 7.5-Minute Series Del Mar, Poway, La Jolla and La Mesa Quadrangles.

Figure 21
Vicinity Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

- ARU, Arundo-Dominated Riparian
- CAM, Cismontane Alkali Marsh
- DEV, Urban/Developed
- DH, Disturbed Habitat
- DW, Disturbed Wetland
- FWM, Coastal and Valley Freshwater Marsh
- HW, Herbaceous wetland
- MFS, Mule Fat Scrub
- NVC, Non-Vegetated Channel or Floodway
- OW, Open Water
- SWS, Southern Willow Scrub
- dSWS, disturbed Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet

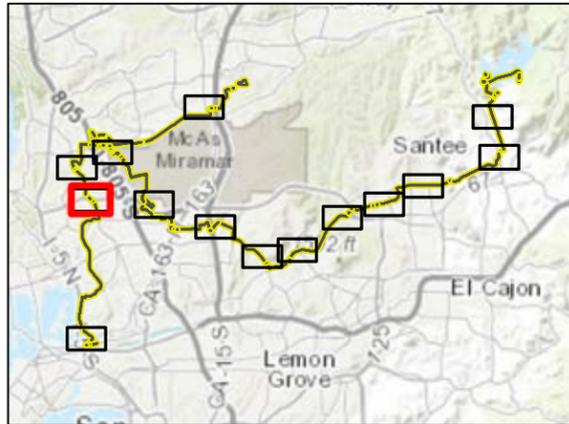


SOURCE: ESRI World Topographic Basemap, 2016



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

Figure 3a
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- POTU, Southwestern pond turtle
- Suitable SWFL/ LBVI Habitat

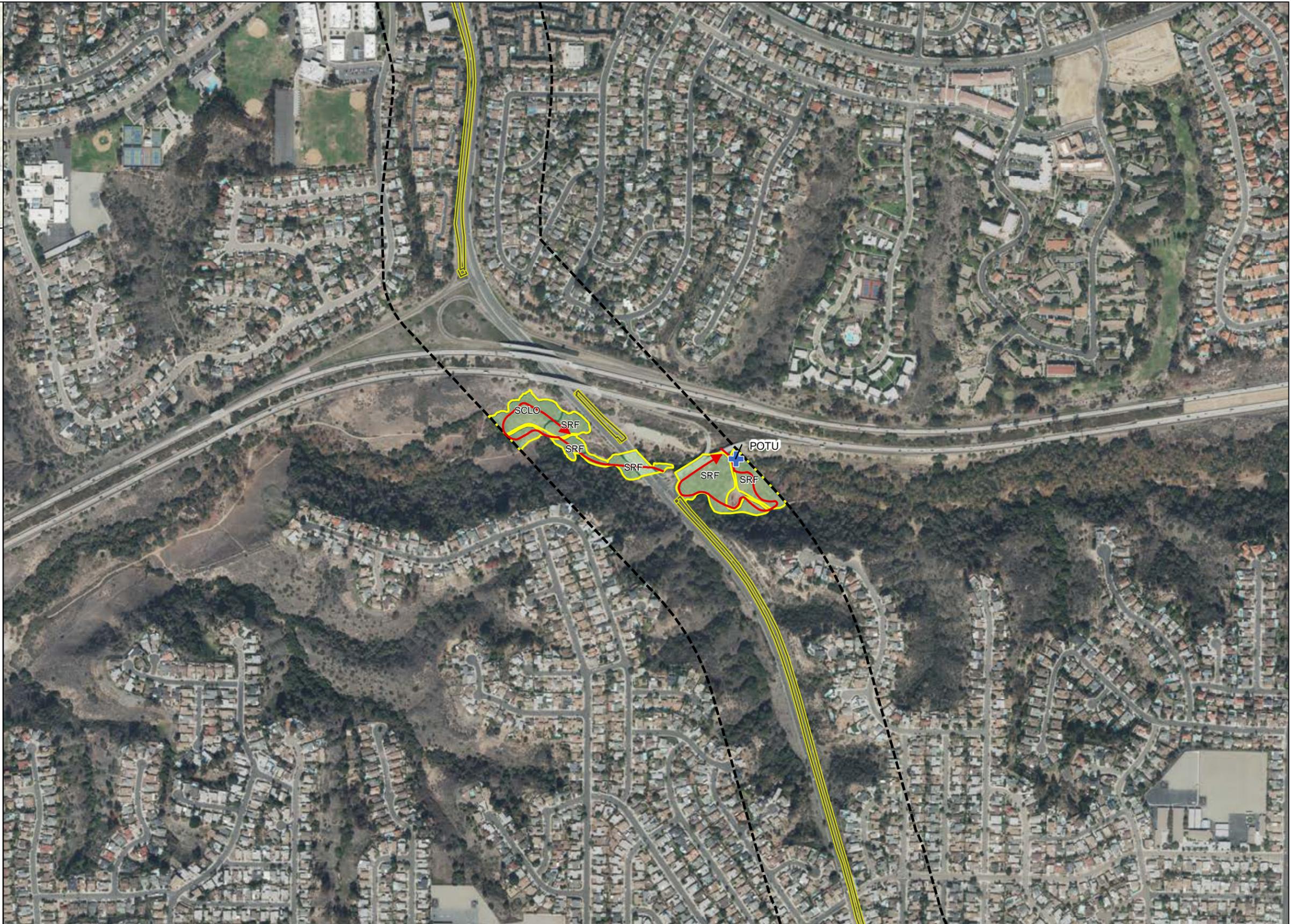
Code, Dudek_VegCom

- MFS, Mule Fat Scrub
- NVC, Non-Vegetated Channel or Floodway
- SCLO, Southern Coast Live Oak Riparian Forest
- SRF, Southern Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest

Riparian Habitat

SWIFL/LBVI Survey Areas

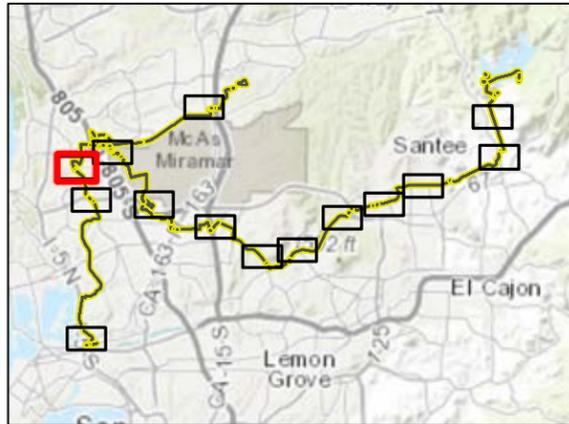
- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3b
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- COHA, Cooper's Hawk
- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

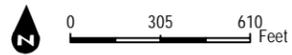
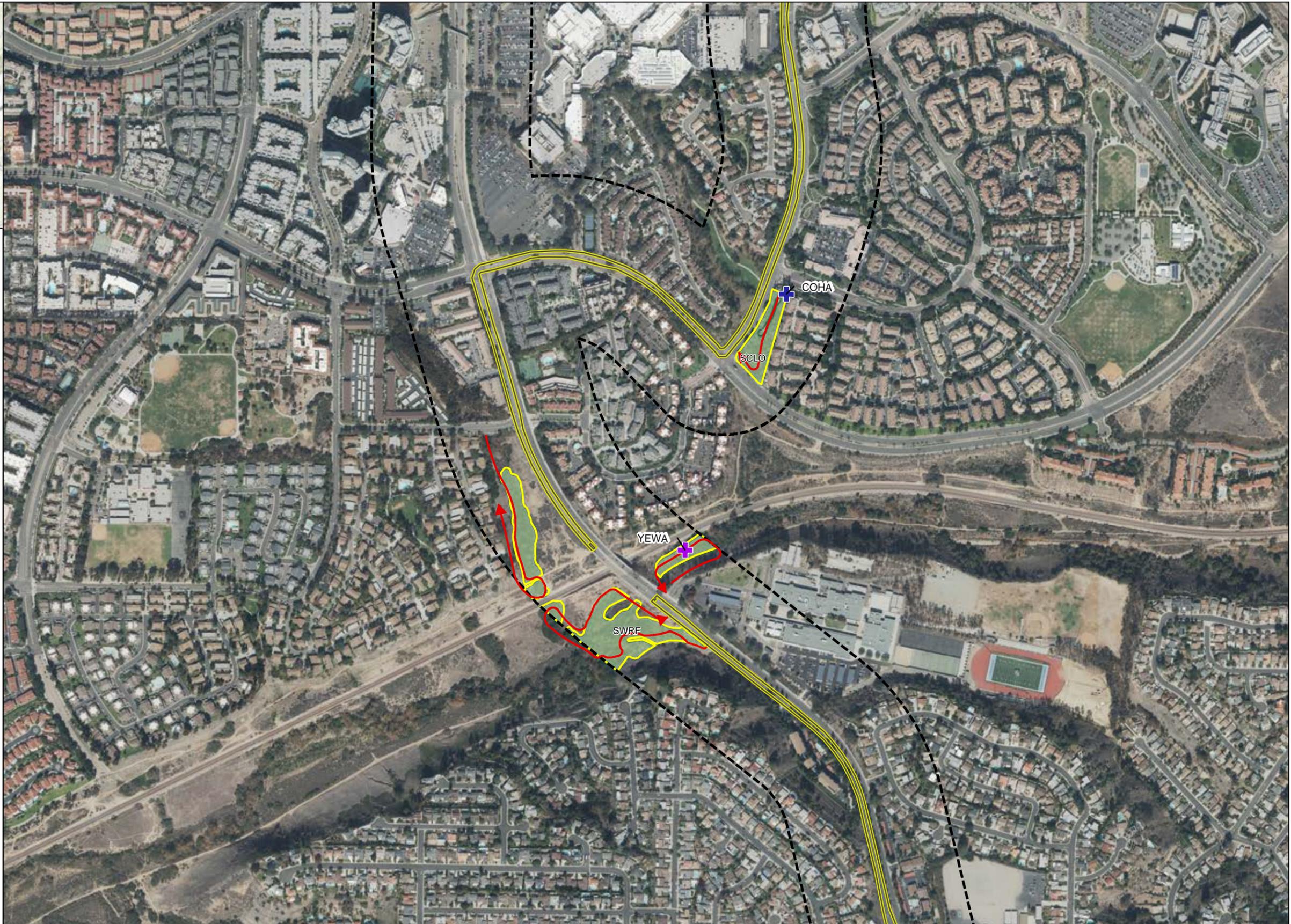
Code, Dudek_VegCom

- FWM, Coastal and Valley Freshwater Marsh
- SCLO, Southern Coast Live Oak Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub

Riparian Habitat

SWFL/LBVI Survey Areas

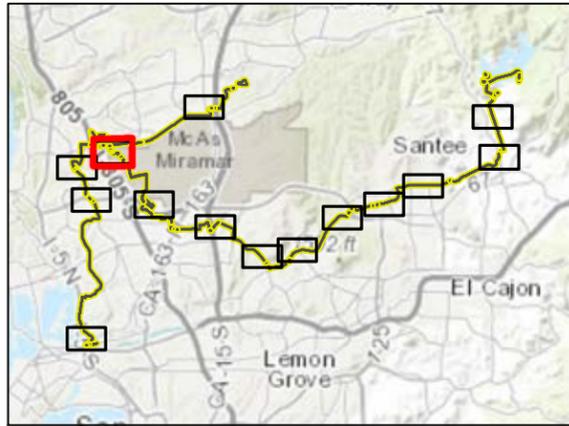
- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3c
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

- FWM, Coastal and Valley Freshwater Marsh
- SWS, Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet

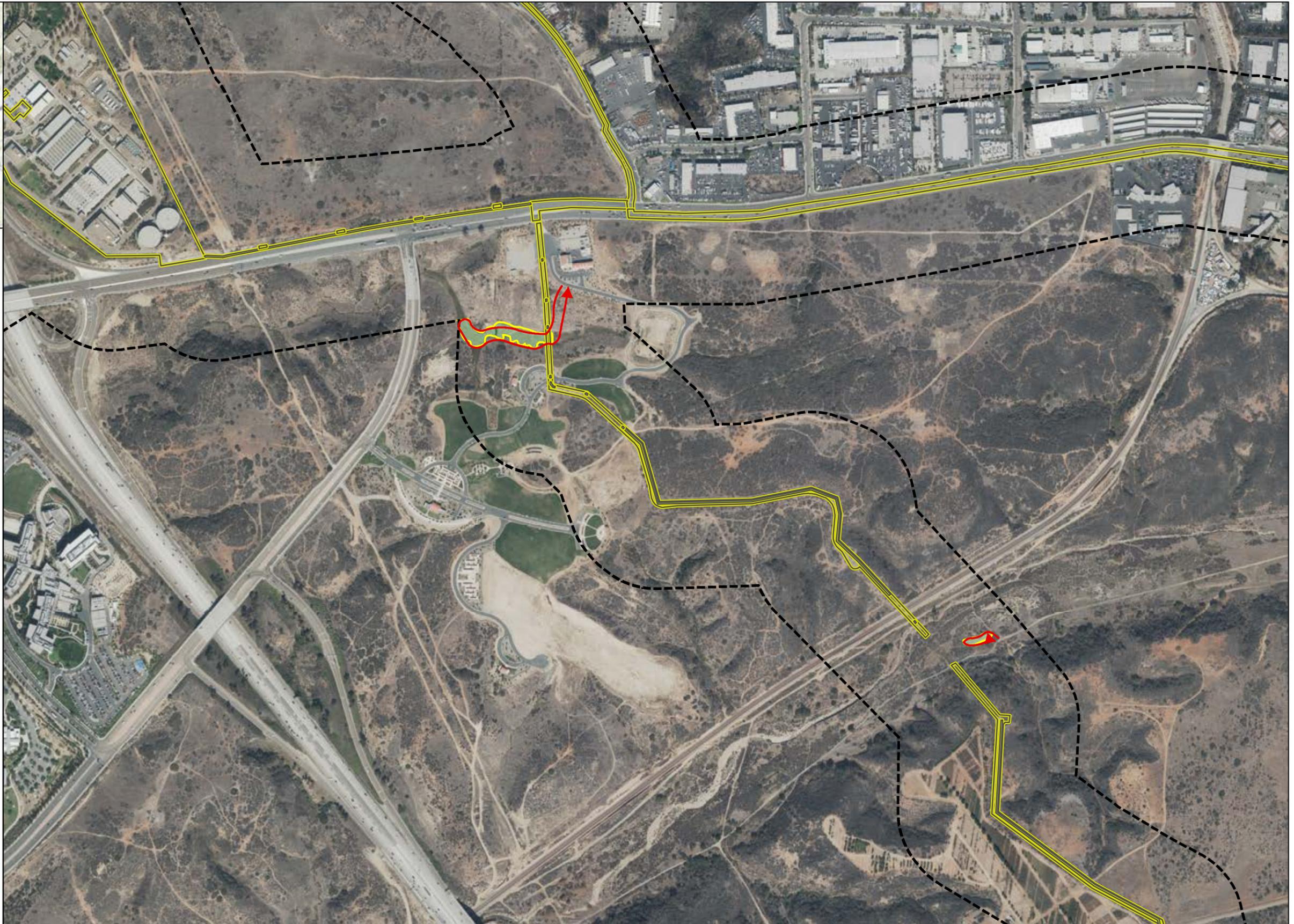
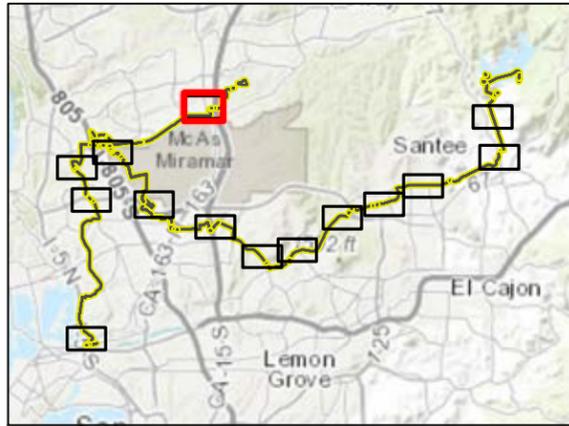
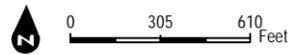
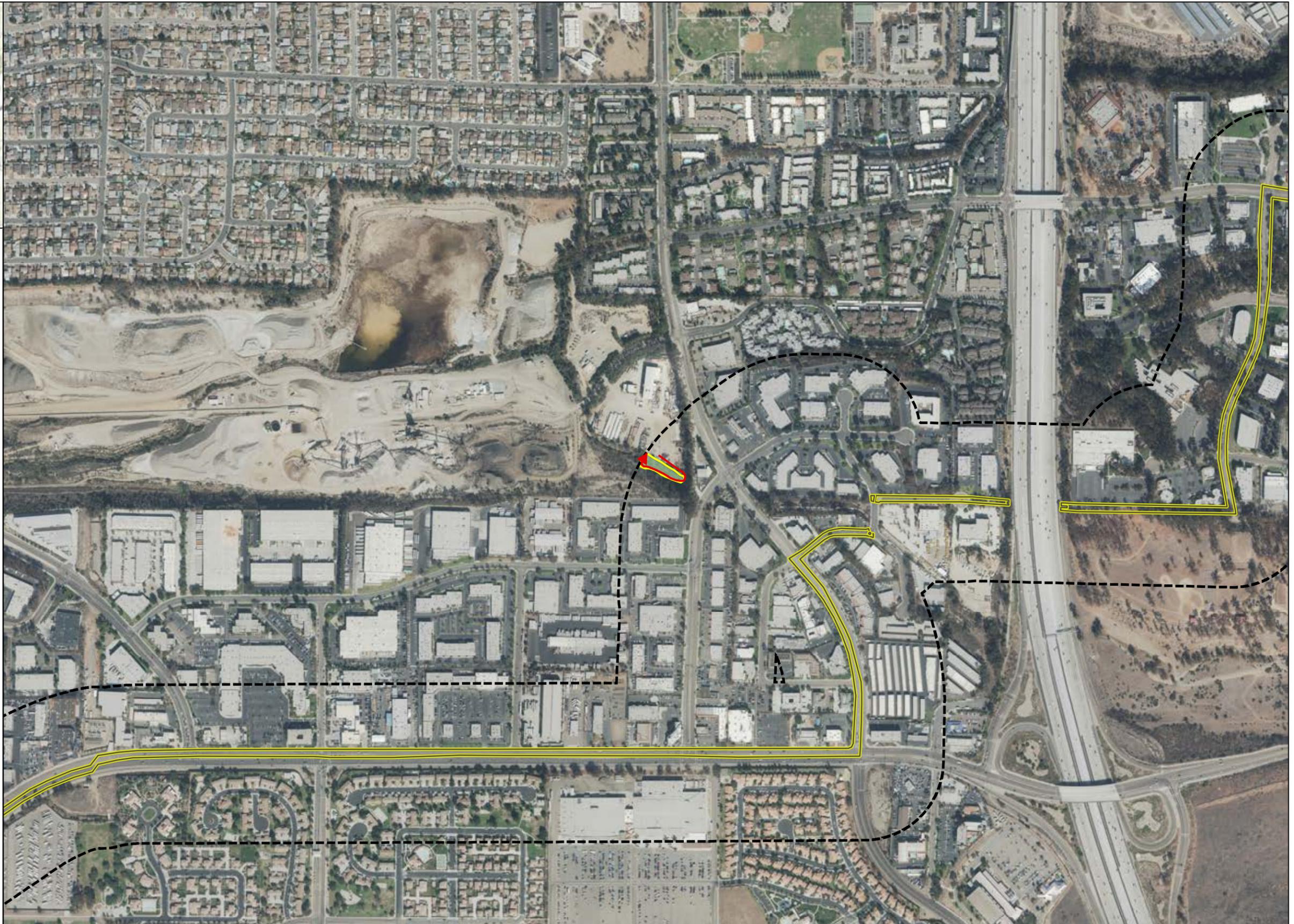


Figure 3d
Survey Results Map



- LEGEND**
- Pipeline Study Area - 500 FT Buffer
 - Project Pipeline Impacts
 - SWFL/ LBVI Survey Route
 - Suitable SWFL/ LBVI Habitat
- Code, Dudek_VegCom**
- SWS, Southern Willow Scrub
- Riparian Habitat**
- SWFL/LBVI Survey Areas**
- Survey Area 1A
 - Survey Area 1B
 - Survey Area 2
 - Survey Area 3

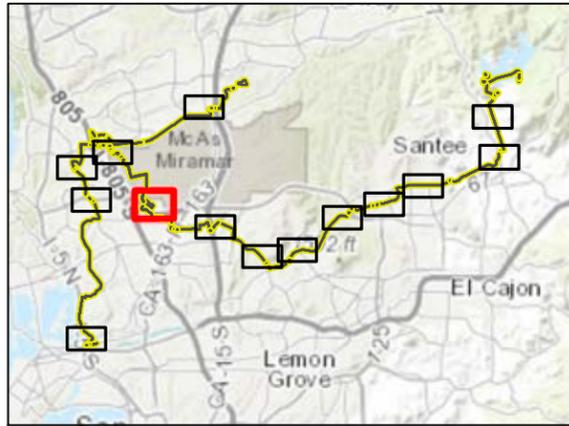


SOURCE: ESRI World Topographic Basemap, 2016



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

Figure 3e
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- WIFL, Willow Flycatcher
- YBCH, Yellow-breasted chat
- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

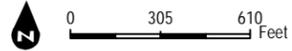
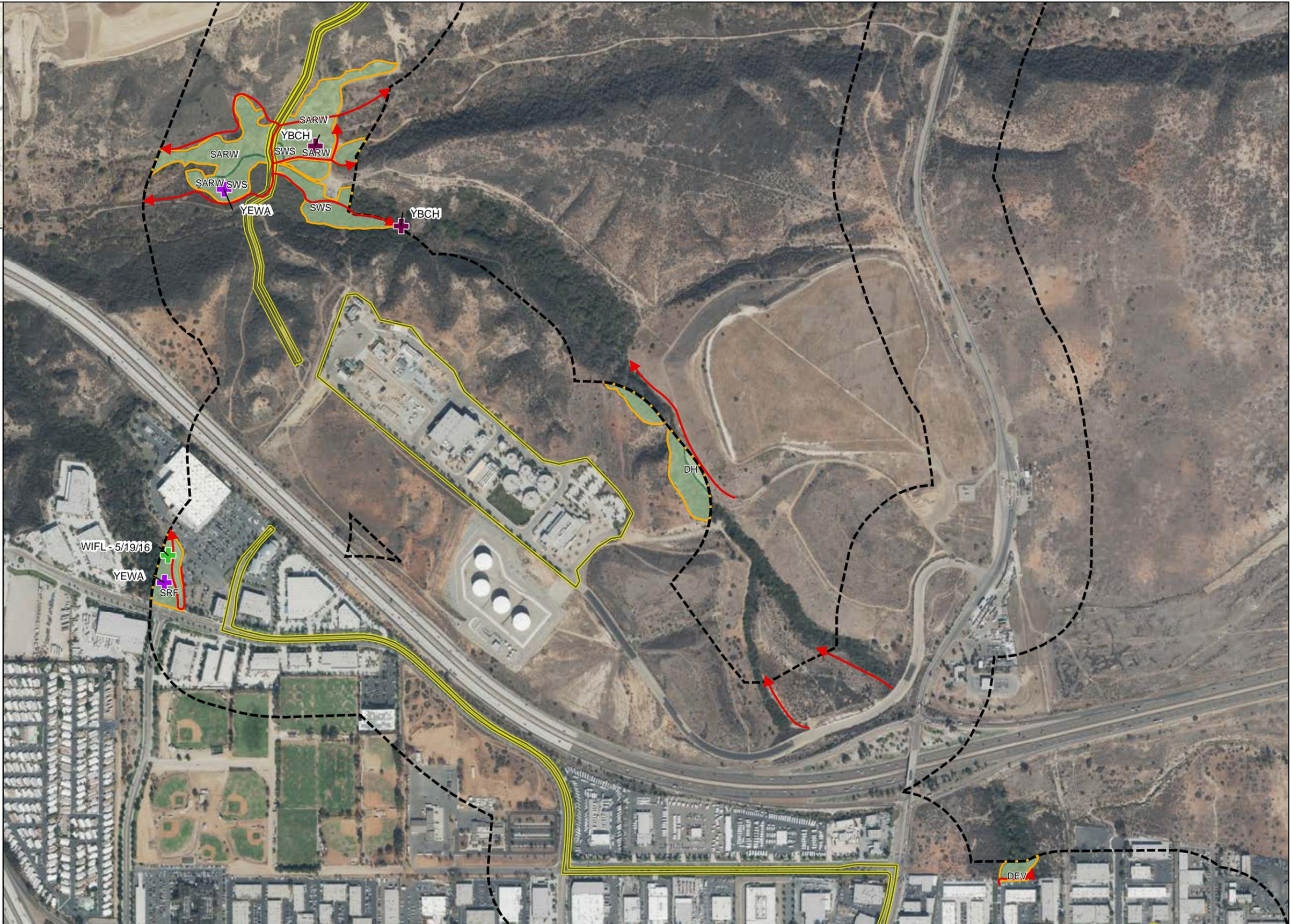
Code, Dudek_VegCom

- CSS-CHP, Coastal Sage-Chaparral Transition
- DH, Disturbed Habitat
- SARW, Southern Sycamore-Alder Riparian Woodland
- SMX, Southern Mixed Chaparral
- SRF, Southern Riparian Forest
- SWS, Southern Willow Scrub
- dSWS, disturbed Southern Willow Scrub

Riparian Habitat

SWFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

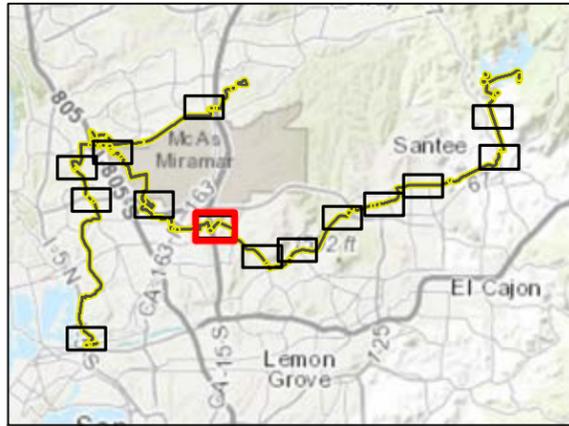


SOURCE: ESRI World Topographic Basemap, 2016



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

Figure 3f
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

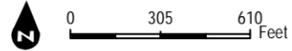
Code, Dudek_VegCom

- FWM, Coastal and Valley Freshwater Marsh
- SCWRF, Southern Cottonwood-Willow Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

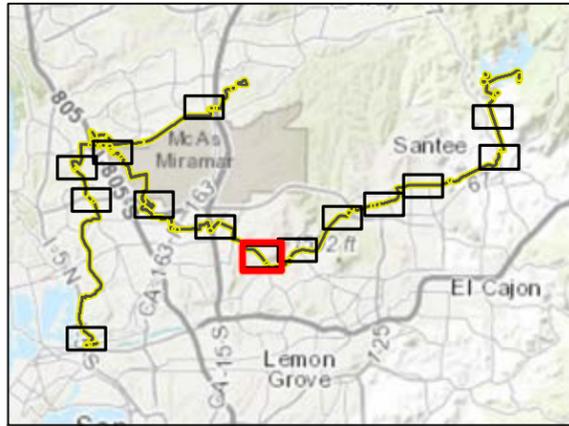
- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3g
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

- ARU, Arundo-Dominated Riparian
- FWM, Coastal and Valley Freshwater Marsh
- OW, Open Water
- SWS, Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet

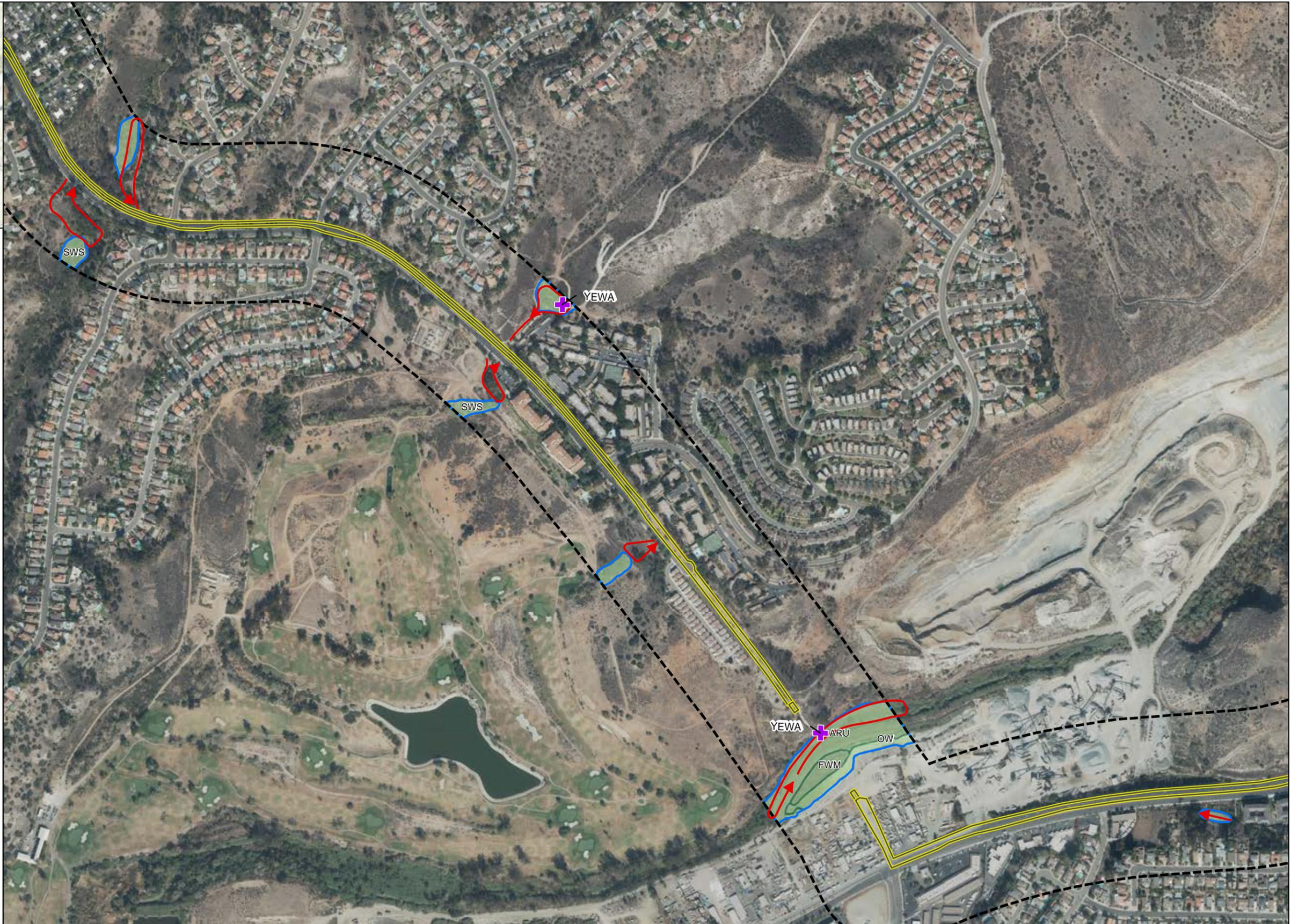
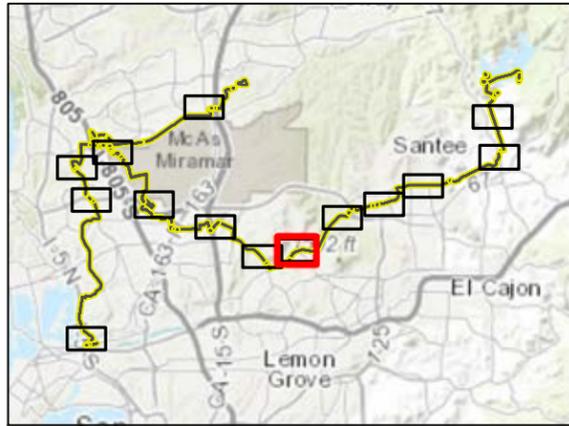


Figure 3h
Survey Results Map

SOURCE: ESRI World Topographic Basemap, 2016





LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- COHA, Cooper's Hawk
- Suitable SWFL/ LBVI Habitat

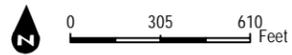
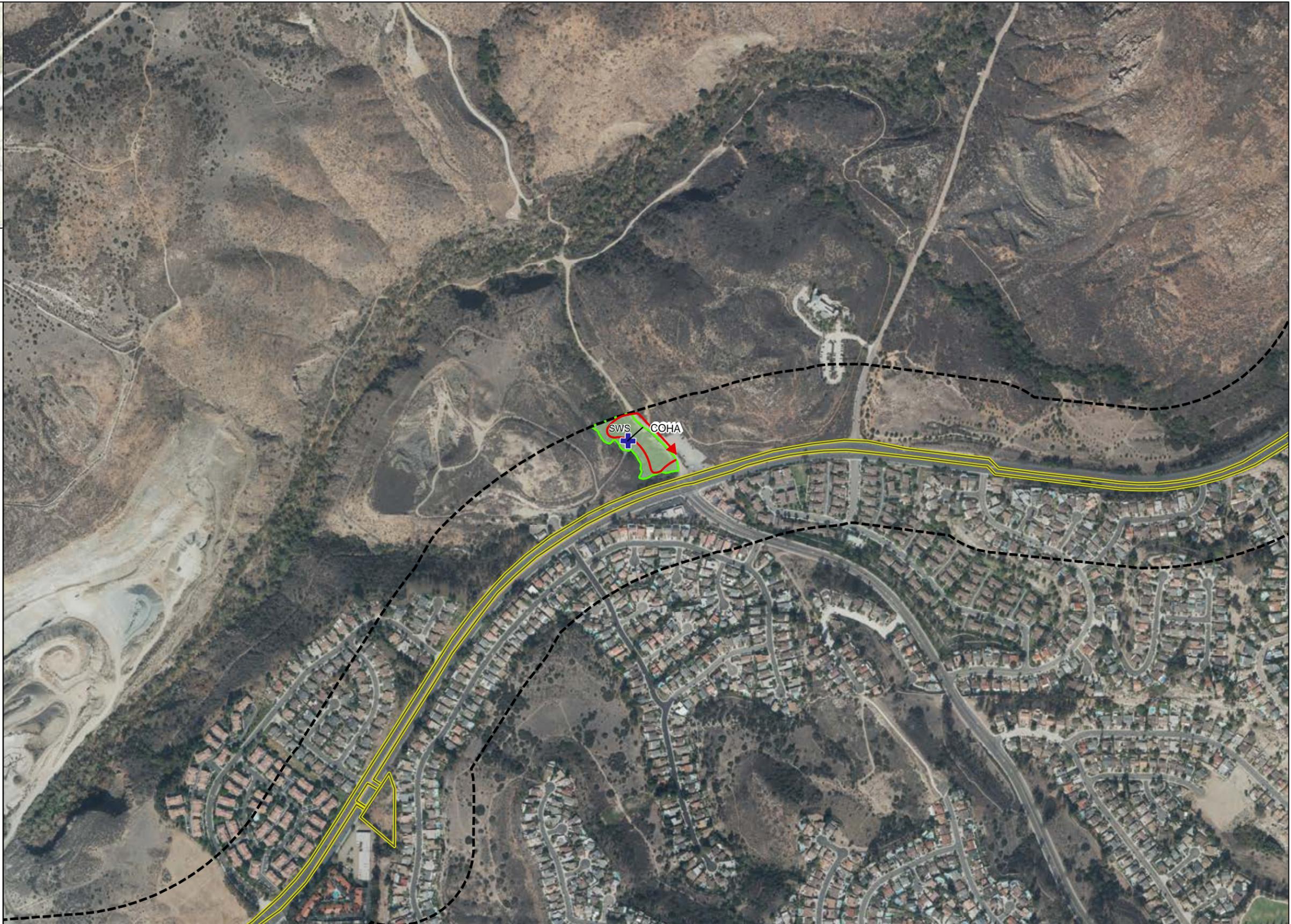
Code, Dudek_VegCom

- SWS, Southern Willow Scrub

Riparian Habitat

SWFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

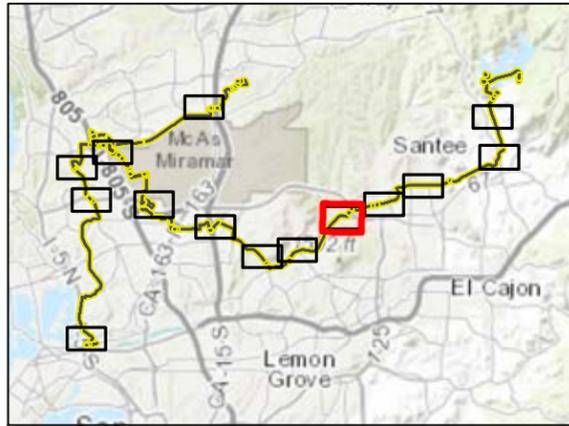


SOURCE: ESRI World Topographic Basemap, 2016



2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

Figure 3i
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- Observed LBVI Use Area
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- LBVI-adult male, Least Bell's Vireo
- NUWO, Nuttall's woodpecker
- YBCH, Yellow-breasted chat
- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

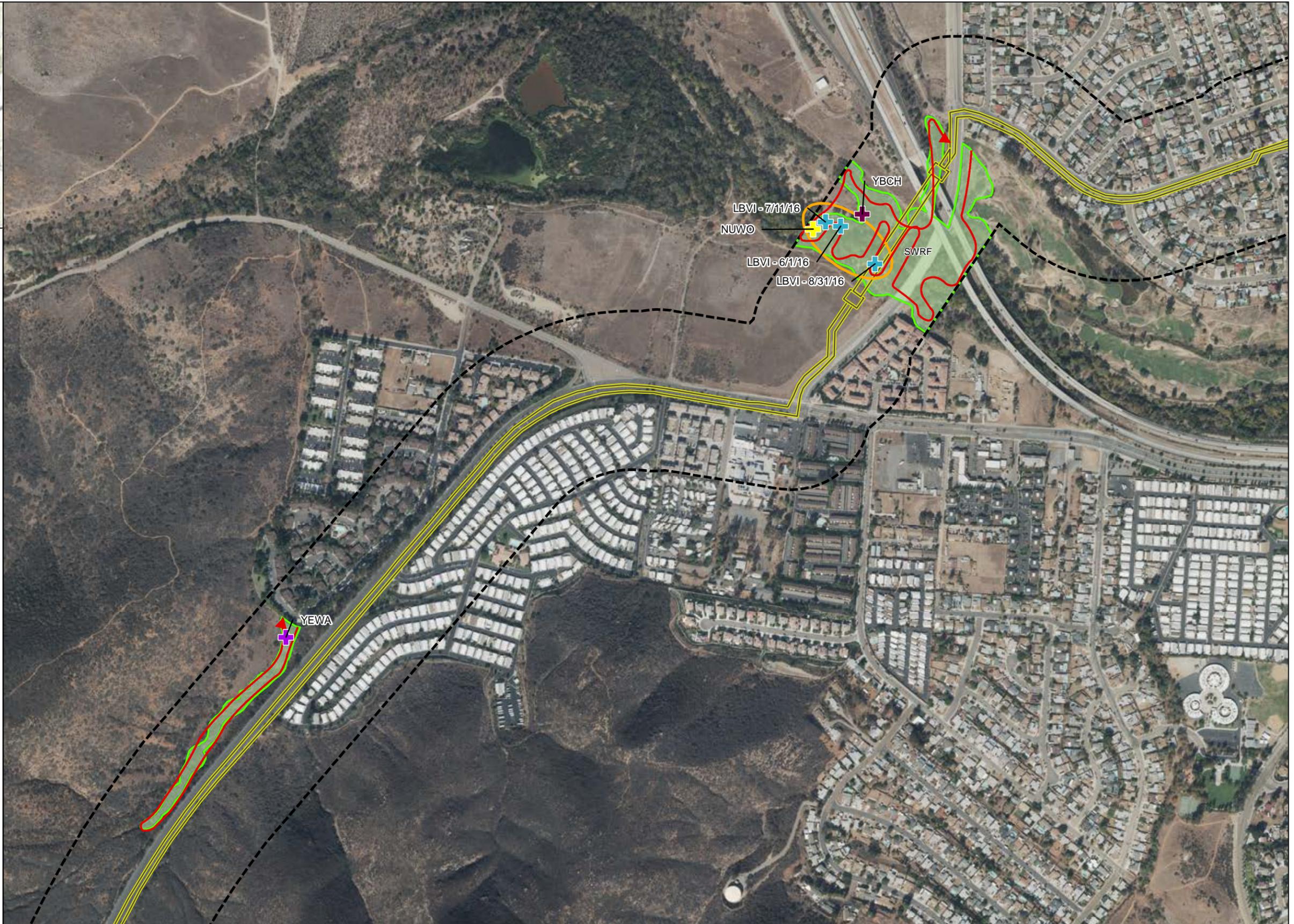
- SWRF, Southern Arroyo Willow Riparian Forest

Riparian Habitat

SWFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

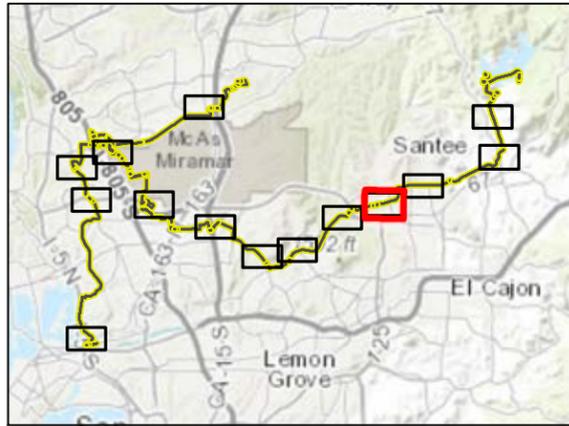
0 305 610 Feet



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3j
Survey Results Map



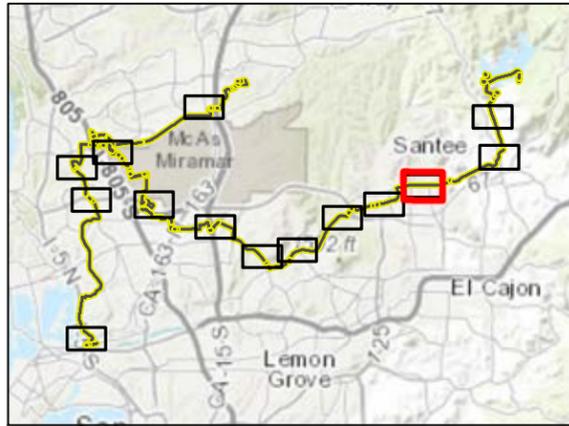
- LEGEND**
- Pipeline Study Area - 500 FT Buffer
 - Project Pipeline Impacts
 - Observed LBVI Use Area
 - SWFL/ LBVI Survey Route
- Survey Results**
- Species Code, Common Name**
- COHA, Cooper's Hawk
 - LBVI-adult male, Least Bell's Vireo
 - NUWO, Nutall's woodpecker
 - YBCH, Yellow-breasted chat
 - Suitable SWFL/ LBVI Habitat
- Code, Dudek_VegCom**
- SWS, Southern Willow Scrub
- Riparian Habitat**
- SWIFL/LBVI Survey Areas**
- Survey Area 1A
 - Survey Area 1B
 - Survey Area 2
 - Survey Area 3



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3k
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- Observed LBVI Use Area
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- LBVI-adult male, Least Bell's Vireo
- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

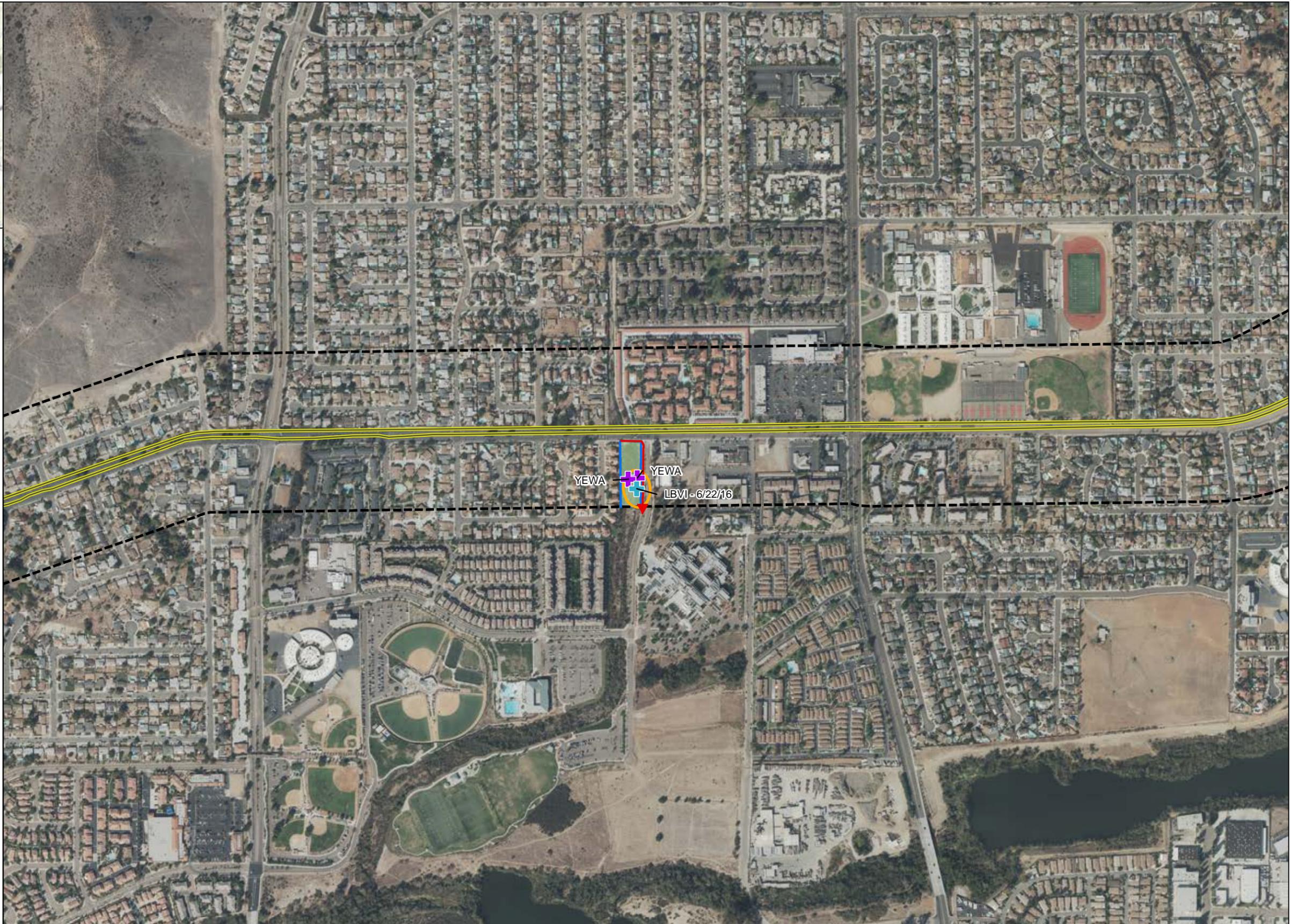
- SWS, Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet

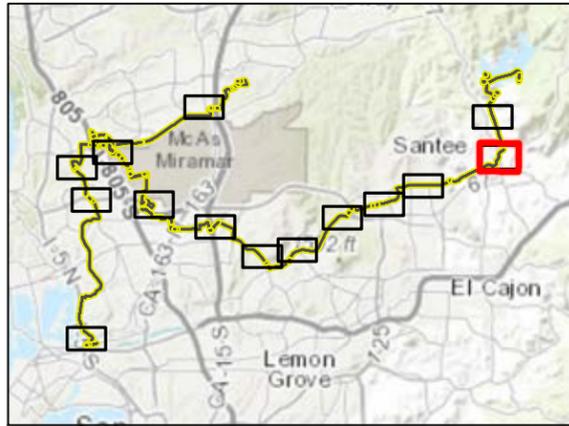


01/10/2016 1:14:34 PM - 2016 Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Pure Water San Diego Program, County of San Diego, California

SOURCE: ESRI World Topographic Basemap, 2016



Figure 31
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- Observed LBVI Use Area
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- BHCO, brown headed cowbird
- CAGN, California Gnatcatcher
- COHA, Cooper's Hawk
- LBVI-adult male, Least Bell's Vireo
- NUWO, Nuttall's woodpecker
- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

- CSS, Diegan Coastal Sage Scrub
- DEV, Urban/Developed
- NVC, Non-Vegetated Channel or Floodway
- OW, Open Water
- SCWRF, Southern Cottonwood-Willow Riparian Forest
- SWRF, Southern Arroyo Willow Riparian Forest
- SWS, Southern Willow Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet

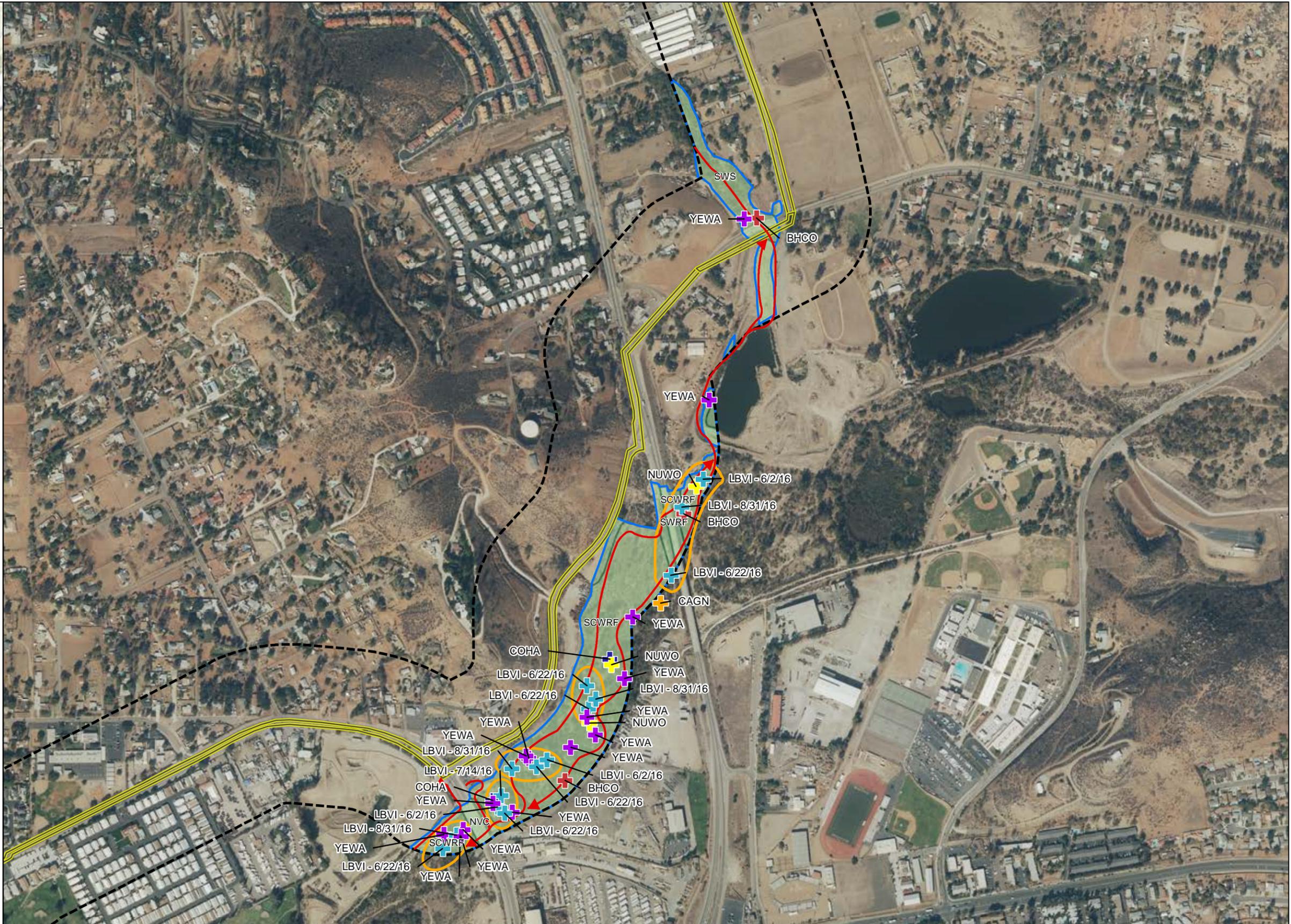
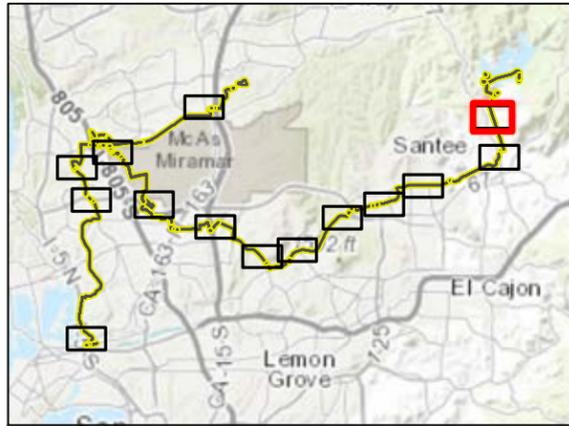


Figure 3m
Survey Results Map



LEGEND

- Pipeline Study Area - 500 FT Buffer
- Project Pipeline Impacts
- SWFL/ LBVI Survey Route

Survey Results

Species Code, Common Name

- YEWA, Yellow warbler
- Suitable SWFL/ LBVI Habitat

Code, Dudek_VegCom

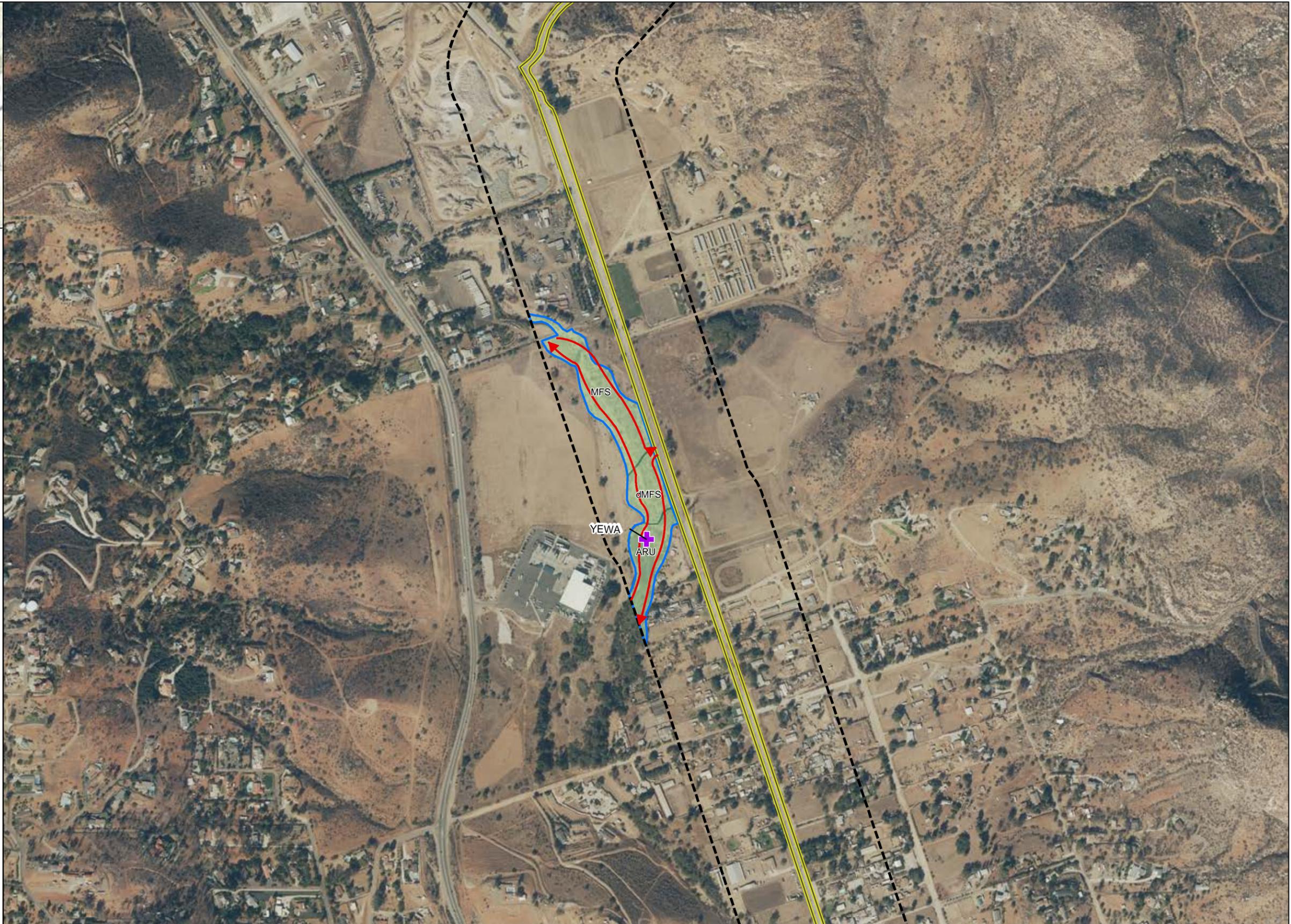
- ARU, Arundo-Dominated Riparian
- DEV, Urban/Developed
- MFS, Mule Fat Scrub
- dMFS, disturbed Mule Fat Scrub

Riparian Habitat

SWIFL/LBVI Survey Areas

- Survey Area 1A
- Survey Area 1B
- Survey Area 2
- Survey Area 3

0 305 610 Feet



SOURCE: ESRI World Topographic Basemap, 2016



Figure 3n
Survey Results Map

APPENDIX A

Wildlife Species Observed in Study Area

ATTACHMENT A
Wildlife Species Observed in Study Area

AMPHIBIANS

FROGS

RANIDAE—TONGUELESS FROGS

- * *Lithobates catesbeianus*—American bullfrog

BIRDS

BLACKBIRDS, ORIOLES, AND ALLIES

ICTERIDAE—BLACKBIRDS

- Agelaius phoeniceus*—red-winged blackbird
Euphagus cyanocephalus—Brewer's blackbird
Icterus bullockii—Bullock's oriole
Quiscalus mexicanus—great-tailed grackle
* *Molothrus ater*—brown-headed cowbird
Icterus cucullatus—hooded oriole

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

- Psaltriparus minimus*—bushtit

CARDINALS, GROSBEAKS, AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

- Passerina amoena*—Lazuli bunting
Piranga ludoviciana—western tanager
Passerina caerulea—blue grosbeak
Pheucticus melanocephalus—black-headed grosbeak

CORMORANTS

PHALACROCORACIDAE—CORMORANTS

- Phalacrocorax auritus*—double-crested cormorant

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

- Chondestes grammacus*—lark sparrow

ATTACHMENT A (Continued)

Melospiza lincolni—Lincoln's sparrow
Melospiza melodia—song sparrow
Melospiza crissalis—California towhee
Pipilo maculatus—spotted towhee
Zonotrichia leucophrys—white-crowned sparrow
Aimophila ruficeps—rufous-crowned sparrow
Junco hyemalis—dark-eyed junco

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch
Spinus tristis—American goldfinch
Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Contopus sordidulus—western wood-pewee
Empidonax traillii—willow flycatcher
Myiarchus cinerascens—ash-throated flycatcher
Sayornis nigricans—black phoebe
Sayornis saya—Say's phoebe
Tyrannus verticalis—western kingbird
Tyrannus vociferans—Cassin's kingbird
Empidonax difficilis—Pacific-slope flycatcher

GOATSUCKERS

CAPRIMULGIDAE—GOATSUCKERS

Chordeiles acutipennis—lesser nighthawk

GREBES

PODICIPEDIDAE—GREBES

Podilymbus podiceps—pied-billed grebe

ATTACHMENT A (Continued)

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

- Accipiter cooperii*—Cooper’s hawk
- Buteo jamaicensis*—red-tailed hawk
- Buteo lineatus*—red-shouldered hawk
- Circus cyaneus*—northern harrier
- Elanus leucurus*—white-tailed kite

HERONS AND BITTERNS

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

- Ardea alba*—great egret
- Ardea herodias*—great blue heron
- Butorides virescens*—green heron
- Egretta thula*—snowy egret
- Nycticorax nycticorax*—black-crowned night-heron

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

- Calypte anna*—Anna’s hummingbird
- Calypte costae*—Costa’s hummingbird
- Selasphorus sasin*—Allen’s hummingbird

JAYS, MAGPIES, AND CROWS

CORVIDAE—CROWS AND JAYS

- Phelocoma californica*—western scrub-jay
- Corvus brachyrhynchos*—American crow
- Corvus corax*—common raven

KINGLETS

REGULIDAE—KINGLETS

- Regulus calendula*—ruby-crowned kinglet

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

- Mimus polyglottos*—northern mockingbird
- Toxostoma redivivum*—California thrasher

ATTACHMENT A (Continued)

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

NEW WORLD VULTURES

CATHARTIDAE—CARDINALS AND ALLIES

Cathartes aura—turkey vulture

OLD WORLD SPARROWS

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus*—house sparrow

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Poliophtila caerulea—blue-gray gnatcatcher

Poliophtila californica californica—coastal California gnatcatcher

OWLS

TYTONIDAE—BARN OWLS

Tyto alba—barn owl

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

* *Columba livia*—rock pigeon (rock dove)

* *Streptopelia decaocto*—Eurasian collared-dove

RAILS, GALLINULES, AND COOTS

RALLIDAE—RAILS, GALLINULES, AND COOTS

Fulica americana—American coot

SHOREBIRDS

CHARADRIIDAE—LAPWINGS AND PLOVERS

Charadrius vociferus—killdeer

ATTACHMENT A (Continued)

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow

Petrochelidon pyrrhonota—cliff swallow

Stelgidopteryx serripennis—northern rough-winged swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

TERNs AND GULLS

LARIDAE—GULLS, TERNS, AND SKIMMERS

Larus occidentalis—western gull

Sterna hirundo—common tern

Hydroprogne caspia—Caspian tern

THRUSHES

TURDIDAE—THRUSHES

Catharus guttatus—hermit thrush

Sialia mexicana—western bluebird

Turdus migratorius—American robin

TITMICE

PARIDAE—CHICKADEES AND TITMICE

Baeolophus inornatus—oak titmouse

ATTACHMENT A (Continued)

VIREOS

VIREONIDAE—VIREOS

Vireo bellii pusillus—least Bell's vireo

Vireo gilvus—warbling vireo

Vireo huttoni—Hutton's vireo

WATERFOWL

ANATIDAE—DUCKS, GEESE, AND SWANS

Anas platyrhynchos—mallard

Anas strepera—gadwall

Lophodytes cucullatus—hooded merganser

WAXWINGS

BOMBYCILLIDAE—WAXWINGS

Bombycilla cedrorum—cedar waxwing

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas—common yellowthroat

Icteria virens—yellow-breasted chat

Oreothlypis celata—orange-crowned warbler

Cardellina pusilla—Wilson's warbler

Setophaga petechia—yellow warbler

Setophaga townsendi—Townsend's warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Melanerpes formicivorus—Acorn woodpecker

Picoides nuttallii—Nuttall's woodpecker

Picoides pubescens—downy woodpecker

Colaptes auratus—northern flicker

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

Troglodytes aedon—house wren

ATTACHMENT A (Continued)

INVERTEBRATES

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Leptotes marina—marine blue

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Adelpha bredowii—California sister

Danaus gilippus—queen

Junonia coenia—common buckeye

Nymphalis antiopa—mourning cloak

Vanessa annabella—west coast lady

Vanessa atalanta—red admiral

Vanessa cardui—painted lady

Danaus plexippus—monarch

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—pale swallowtail

Papilio rutulus—western tiger swallowtail

Papilio zelicaon—anise swallowtail

PIERIDAE—WHITES AND SULFURS

Phoebis sennae—cloudless sulphur

Pieris rapae—cabbage white

Pontia protodice—checkered white

Pontia sisymbrii—spring white

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Lynx rufus—bobcat

ATTACHMENT A (Continued)

DOMESTIC

CANIDAE—WOLVES AND FOXES

* *Canis lupus familiaris*—domestic dog

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus audubonii—desert cottontail

Sylvilagus bachmani—brush rabbit

MUSTELIDS

MEPHITIDAE—SKUNKS

Mephitis mephitis—striped skunk

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

RACCOONS

PROCYONIDAE—RACCOONS AND RELATIVES

Procyon lotor—raccoon

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus—mule deer

REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

Uta stansburiana—common side-blotched lizard

ATTACHMENT A (Continued)

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis hyperythra beldingi—Belding's orange-throated whiptail

SNAKES

VIPERIDAE—VIPERS

Crotalus ruber—red diamondback rattlesnake

TURTLES

EMYDIDAE—BOX AND WATER TURTLES

Actinemys marmorata—western pond turtle

* signifies introduced (non-native) species

ATTACHMENT A (Continued)

INTENTIONALLY LEFT BLANK

APPENDIX B

Willow Flycatcher Survey and Detection Forms

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (<http://www.fws.gov/southwest/es/arizona/>) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Pure Water State CA County San Diego
 USGS Quad Name General - See report Elevation 29-310 (meters)
 Creek, River, Wetland, or Lake Name General throughout San Diego County
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 481059.27 N 3624902.48 UTM Datum NAD27 (See instructions)
 Stop: E 508963.00 N 3642959.87 UTM Zone 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

**** Fill in additional site information on back of this page ****

Survey Area 1A

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Time	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bud behavior, evidence of pairs or breeding, potential threats (livestock, cowbirds, <i>Diochthys</i> spp.), <i>Diochthys</i> found, contact USFWS and State WIFL coordinator)	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey) Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1 Observer(s) <u>Paul Lemons (PL)</u>	Date <u>5/19</u> Start <u>10:30</u> Stop <u>11:00</u> Total hrs <u>5.3</u>	0	0	0	0					
Survey # 2 Observer(s) <u>PL</u>	Date <u>6/3</u> Start <u>0550</u> Stop <u>1100</u> Total hrs <u>5.1</u>	0	0	0	0					
Survey # 3 Observer(s) <u>PL</u>	Date <u>6/16</u> Start <u>0550</u> Stop <u>1100</u> Total hrs <u>5.1</u>	0	0	0	0					
Survey # 4 Observer(s) <u>PL</u>	Date <u>7/7</u> Start <u>0550</u> Stop <u>1100</u> Total hrs <u>5.1</u>	0	0	0	0					
Survey # 5 Observer(s) <u>PL</u>	Date <u>7/17</u> Start <u>0600</u> Stop <u>1100</u> Total hrs <u>5</u>	0	0	0	0					
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs <u>25.6</u>		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/> [If yes, report color combination(s) in the comments section on back of form and report to USFWS. <u>N/A - No WIFL detected</u>				

Reporting Individual Paul Lemons Date Report Completed September 2010
 US Fish and Wildlife Service Permit # TE051248-5 State Wildlife Agency Permit # X-1640

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Paul Lemons Phone # 760-942-5147
 Affiliation Consultant - Dudek E-mail plemons@dudek.com
 Site Name Pure Water San Diego Program Date Report Completed Sept 2016

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable

If site name is different, what name(s) was used in the past? N/A

If site was surveyed last year, did you survey the same general area this year? Yes ___ No ___ If no, summarize below. N/A

Did you survey the same general area during each visit to this site this year? Yes No ___ If no, summarize below.

Management Authority for Survey Area: Federal ___ Municipal/County State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) City of San Diego

Length of area surveyed: ~37,400 (meters) = Approximate length of Entire Project Alignment

Vegetation Characteristics: Mark the category that best describes the predominant tree/shrub foliar layer at this site (check one):

- Native broadleaf plants (entirely or almost entirely, > 90% native. includes high-elevation willow)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
Salix lasiolepis, Plantanus racemosa, Populus fremontii

Average height of canopy (Do not include a range): 25 (meters)

Attach copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections.
 Attach sketch or aerial photo showing site location, patch shape, survey route, location of any WIFLs or WIFL nests detected.
 Attach photos of the interior of the patch, exterior of the patch, and overall site; describe any unique habitat features.

Comments (attach additional sheets if necessary)
No WIFL detected

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM N	UTM E	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (<http://www.fws.gov/southwest/es/arizona/>) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Pure Water State CA County San Diego
 USGS Quad Name Several - See report Elevation 28-210 (meters)
 Creek, River, Wetland, or Lake Name Several throughout San Diego County
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 491059.27 N 3624902.48 UTM Datum NAD27 (See instructions)
 Stop: E 508963.00 N 3642959.87 UTM Zone 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.

**** Fill in additional site information on back of this page ****

Survey Area 1B

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey Line	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior, evidence of pairs or breeding; potential threats (livestock, cowbirds, <i>Thryothorus</i> spp.); if <i>Thryothorus</i> found, contact USFWS and State WIFL coordinator)	GPS Coordinates for WIFL Detections (This is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1 Observer(s) <u>Brink Ortega (BO)</u>	Date <u>5/19</u> Start <u>0558</u> Stop <u>1031</u> Total hrs <u>4.5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>Foraging; not SWFL</u>				
Survey # 2 Observer(s) <u>BO</u>	Date <u>6/4</u> Start <u>0603</u> Stop <u>1050</u> Total hrs <u>4.9</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>					
Survey # 3 Observer(s) <u>BO</u>	Date <u>6/17</u> Start <u>0514</u> Stop <u>1032</u> Total hrs <u>5.2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>					
Survey # 4 Observer(s) <u>BO</u>	Date <u>7/5</u> Start <u>0531</u> Stop <u>1048</u> Total hrs <u>5.25</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>					
Survey # 5 Observer(s) <u>BO</u>	Date <u>7/15</u> Start <u>0533</u> Stop <u>1105</u> Total hrs <u>5.2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>					
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs: <u>25.1</u>		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>					

Reporting Individual Brink Ortega Date Report Completed _____
 US Fish and Wildlife Service Permit # TC813545-0 State Wildlife Agency Permit # _____
 Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Brak Ortega Phone # 760-942-5147
 Affiliation Consultant - Dudek E-mail brortega@dudek.com
 Site Name Pure Water San Diego Program Date Report Completed _____

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable X

If site name is different, what name(s) was used in the past? N/A

If site was surveyed last year, did you survey the same general area this year? Yes ___ No ___ If no, summarize below. N/A

Did you survey the same general area during each visit to this site this year? Yes X No ___ If no, summarize below.

Management Authority for Survey Area: Federal ___ Municipal/County X State ___ Tribal ___ Private ___

Name of Management Entity or Owner (e.g., Tonto National Forest) City of San Diego

Length of area surveyed: ~37,400 (meters) = Approximate length of Entire Project Alignment

Vegetation Characteristics: Mark the category that best describes the predominant tree/shrub foliar layer at this site (check one):

___ Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)

✓ Mixed native and exotic plants (mostly native, 50 - 90% native)

___ Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

___ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Salix sp., Baccharis salicifolia; Platanus sp.

Average height of canopy (Do not include a range): 20 (meters)

Attach copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections.

Attach sketch or aerial photo showing site location, patch shape, survey route, location of any WIFLs or WIFL nests detected.

Attach photos of the interior of the patch, exterior of the patch, and overall site; describe any unique habitat features.

Comments (attach additional sheets if necessary)

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM N	UTM E	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

32 A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Jeff Priest Phone # 760-442-5147
 Affiliation Consultant - Dudek E-mail _____
 Site Name Pure Water San Diego Program Date Report Completed _____

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable X
 If site name is different, what name(s) was used in the past? N/A
 If site was surveyed last year, did you survey the same general area this year? Yes ___ No ___ If no, summarize below. N/A
 Did you survey the same general area during each visit to this site this year? Yes X No ___ If no, summarize below.

Management Authority for Survey Area: Federal ___ Municipal/County X State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) City of San Diego

Length of area surveyed: ~37,400 (meters) = Approximate length of Entire Project Alignment

Vegetation Characteristics: Mark the category that best describes the predominant tree/shrub foliar layer at this site (check one):

- Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)
- Mixed native and exotic plants (mostly native, 50 - 90% native)
- Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)
- Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.
 (willow) Salix lasiolepis, (Sycamore) Platanus racemosa (Mule fat) Baccharis salicifolia

Average height of canopy (Do not include a range): 8m (meters)

Attach copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections.
 Attach sketch or aerial photo showing site location, patch shape, survey route, location of any WIFLs or WIFL nests detected.
 Attach photos of the interior of the patch, exterior of the patch, and overall site; describe any unique habitat features.

Comments (attach additional sheets if necessary)

No WIFL observed.

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM N	UTM E	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary

Appendix 1. Willow Flycatcher Survey and Detection Form

Always check the U.S. Fish and Wildlife Service Arizona Ecological Services Field Office web site (<http://www.fws.gov/southwest/es/arizona/>) for the most up-to-date version.

Willow Flycatcher (WIFL) Survey and Detection Form (revised April 2010)

Site Name Pure Water State CA County San Diego
 USGS Quad Name Severel - Sea report Elevation 28-210 (meters)
 Creek, River, Wetland, or Lake Name Severel throughout San Diego County
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Survey Coordinates: Start: E 491059.27 N 3624902.48 UTM Datum NAD27 (See instructions)
 Stop: E 508963.00 N 3642959.87 UTM Zone 11S

If survey coordinates changed between visits, enter coordinates for each survey in comments section on back of this page.
**** Fill in additional site information on back of this page ****

Survey Area
3

Survey # Observer(s) (Full Name)	Date (m/d/y) Survey time 2016	Number of Adult WIFLs	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N If Yes, number of nests	Comments (e.g., bird behavior, evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diochobida</i> spp.]). If <i>Diochobida</i> found, contact USFWS and State WIFL coordinator	GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary.			
							# Birds	Sex	UTM E	UTM N
Survey # 1 Observer(s) Anita Hayworth (AH)	Date 5/18 Start 0554 Stop 1109 Total hrs 5.25	0	0	0	N					
Survey # 2 Observer(s) AH	Date 6/2 Start 0504 Stop 1008 Total hrs 5	0	0	0	N					
Survey # 3 Observer(s) AH	Date 6/17 Start 0558 Stop 1009 Total hrs 5	0	0	0	N					
Survey # 4 Observer(s) AH	Date 7/1 Start 0533 Stop 1010 Total hrs 4.6	0	0	0	N					
Survey # 5 Observer(s) AH	Date 7/14 Start 0530 Stop 1005 Total hrs 4.75	0	0	0	N					
Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey hrs 24.6		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes ___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS.				
		0	0	0	0					

Reporting Individual Anita Hayworth Date Report Completed September 2016
 US Fish and Wildlife Service Permit # TE191034-8 State Wildlife Agency Permit # 10810

Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

Fill in the following information completely. Submit form by September 1st. Retain a copy for your records.

Reporting Individual Anita Hayward Phone # 760-942-5147
 Affiliation Consultant - Dudek E-mail ahayward@dudek.com
 Site Name Pure Water San Diego Program Date Report Completed Sept 2010

Did you verify that this site name is consistent with that used in previous years? Yes ___ No ___ Not Applicable

If site name is different, what name(s) was used in the past? N/A

If site was surveyed last year, did you survey the same general area this year? Yes ___ No ___ If no, summarize below, N/A

Did you survey the same general area during each visit to this site this year? Yes No ___ If no, summarize below.

Management Authority for Survey Area: Federal ___ Municipal/County State ___ Tribal ___ Private ___
 Name of Management Entity or Owner (e.g., Tonto National Forest) City of San Diego

Length of area surveyed: ~37,400 (meters) = Approximate length of Entire Project Alignment

Vegetation Characteristics: Mark the category that best describes the predominant tree/shrub foliar layer at this site (check one):

___ Native broadleaf plants (entirely or almost entirely, > 90% native, includes high-elevation willow)

___ Mixed native and exotic plants (mostly native, 50 - 90% native)

Mixed native and exotic plants (mostly exotic, 50 - 90% exotic)

___ Exotic/introduced plants (entirely or almost entirely, > 90% exotic)

Identify the 2-3 predominant tree/shrub species in order of dominance. Use scientific name.

Tamarisk sp.; Salix ~~nigra~~ goodingii; Baccharis salicifolia

Average height of canopy (Do not include a range): 6.1 (meters)

Attach copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections.

Attach sketch or aerial photo showing site location, patch shape, survey route, location of any WIFLs or WIFL nests detected.

Attach photos of the interior of the patch, exterior of the patch, and overall site; describe any unique habitat features.

Comments (attach additional sheets if necessary)

Territory Summary Table. Provide the following information for each verified territory at your site.

Territory Number	All Dates Detected	UTM N	UTM E	Pair Confirmed? Y or N	Nest Found? Y or N	Description of How You Confirmed Territory and Breeding Status (e.g., vocalization type, pair interactions, nesting attempts, behavior)

Attach additional sheets if necessary