

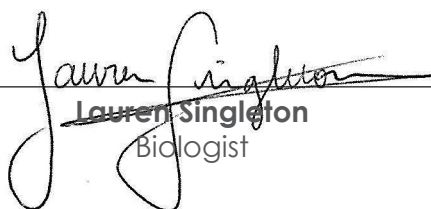
# Sky Canyon Retail Center Project

## Determination of Biologically Equivalent or Superior Preservation Analysis

September 19, 2019 | AVA-01



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Prepared for:

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# TABLE OF CONTENTS

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<b><u>Section</u></b>	<b><u>Page</u></b>
1.0 INTRODUCTION .....	1
1.1 Definition of Project Area .....	1
1.1.1 Project Location .....	1
1.1.2 Project Description .....	2
2.0 METHODS.....	2
2.1 General Biological Resources Assessment.....	2
2.2 Riparian/Riverine Areas .....	2
2.2.1 Habitat Assessment .....	2
2.2.2 Formal Jurisdictional Delineation .....	3
2.3 Least Bell's Vireo .....	3
3.0 EXISTING CONDITIONS.....	3
3.1 Study Area Description .....	3
3.2 Riparian/Riverine Areas .....	4
3.3 Species Associated With Riparian/Riverine Areas .....	5
3.3.1 Plants .....	5
3.3.2 Animals .....	6
4.0 PROJECT IMPACTS.....	9
4.1 Impacts to Riparian/Riverine Areas and Associated Species.....	9
4.2 Impacts to Species Associated with Riparian/Riverine Areas.....	9
5.0 AVOIDANCE, MINIMIZATION, AND MITIGATION.....	10
5.1 Avoidance .....	10
5.1.1 Riparian/Riverine Area.....	10
5.1.2 Least Bell's Vireo.....	11
5.2 Minimization .....	13
5.3 Mitigation.....	14
6.0 CONCLUSION.....	14
7.0 REFERENCES.....	16

## LIST OF APPENDICES

A	Least Bell's Vireo Focused Survey Report
B	Noise Analysis Report



## TABLE OF CONTENTS (cont.)

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### LIST OF FIGURES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Follows Page</u></b>
1	Regional Location.....	2
2	USGS Topography .....	2
3	Aerial Photograph .....	2
4	Site Plan .....	2
5	MSHCP Riparian/Riverine Areas .....	4
6	Impacts to MSHCP Riparian/Riverine Areas .....	10

### LIST OF TABLES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
1	Multiple Species Habitat Conservation Plan (MSHCP) Riparian/Riverine and Vernal Pool Plant Species .....	5
2	MSHCP Riparian/Riverine and Vernal Pool Animal Species.....	8

## ACRONYMS AND ABBREVIATIONS

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AMSL	Above Mean Sea Level
Applicant	AVA Property Investments, LLC
Blower	Air-Blast Dryer Systems
BMPs	Best Management Practices
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
County	County of Riverside
DBESP	Determination of Biologically Equivalent or Superior Preservation
dBA	A-Weighted Decibel
Dudek	Dudek and Associates
GBRA	General Biological Resources Assessment
HELIX	HELIX Environmental Planning, Inc.
I-	Interstate
LBVI	Least Bell's Vireo
MSHCP	Multiple Species Habitat Conservation Plan
Project	Sky Canyon Retail Center Project
RCA	Western Riverside County Regional Conservation Authority
RCRCD	Riverside-Corona Resource Conservation District
ROW	Right-of-Way
SF	Square Foot
SRMA	Southwest Resource Management Association
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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# 1.0 INTRODUCTION

At the request of AVA Property Investments, LLC (Applicant), HELIX Environmental Planning, Inc. (HELIX) prepared this Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis to address consistency of the proposed Sky Canyon Retail Center (project) with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Dudek and Associates [Dudek] 2003), specifically with MSHCP Section 6.1.2. Consistency. Project consistency with other sections of the MSHCP is addressed in the General Biological Resources Assessment (GBRA; HELIX Environmental Planning, Inc. [HELIX] 2018). The project site is located within the Southwest Area Plan of the MSHCP and is not located within any Criteria Cell or Group Cell targeted for conservation by the MSHCP.

This DBESP analysis provides information necessary for the County of Riverside (County) as the MSHCP Permittee and California Environmental Quality Act (CEQA) lead agency to find that the project, with mitigation and conservation measures incorporated, would result in a biologically equivalent or superior MSHCP Conservation Area design and configuration compared to the baseline condition.

This DBESP focuses on demonstrating project consistency and conservation with respect to MSHCP Section 6.1.2 due to unavoidable impacts to Riparian/Riverine Areas. MSHCP Section 6.1.2 states the following:

“The purpose of the procedures described in this section is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that Habitat values for species inside the MSHCP Conservation Area are maintained.”

The emphasis is on conservation of habitats capable of supporting MSHCP Covered Species, particularly within an identified MSHCP Conservation Area. For projects that propose impacts to Riparian/Riverine or Vernal Pool resources, a DBESP assessment must be completed to ensure that the proposed alternative provides for “replacement of any lost functions and values of Habitat as it relates to Covered Species.” This DBESP analysis provides information necessary for the County to find that the project meets these objectives.

## 1.1 DEFINITION OF PROJECT AREA

### 1.1.1 Project Location

The approximately 7.31-acre project site comprises two parcels with Assessor Parcel Numbers 920-120-034 and -035 located in unincorporated Riverside County, California. The project site is generally located to the north of the City of Temecula limits and east of the Interstate (I-) 215 and I-15 junction (Figure 1, *Regional Location*). The project site is located in the U.S. Geological Survey (USGS) 7.5-minute Murrieta quadrangle map within Township 7 South, Range 3 West, Section 24 (Figure 2, *USGS Topography*). Specifically, the project site is located directly northeast of the intersection of Winchester Road (State Route 79) and Willows Avenue (Figure 3, *Aerial Photograph*).

The project also includes an approximately 2.53-acre off-site area located within the proposed Sky Canyon Drive right-of-way (ROW). The off-site area (Sky Canyon Drive Extension) is located along the eastern project boundary (Figure 3). For the purpose of this report, the project site and off-site area are collectively referred to as the study area. The study area is located entirely within the MSHCP Plan Area.

### **1.1.2 Project Description**

The project consists of a commercial and retail center made up of a 31,900-square foot (sf) grocery store, 10,000-sf retail store, 7,500-sf tire shop, 3,000-sf tire shop, 3,000-sf drive-through restaurant, and 4,300-sf car wash on approximately 7.31 acres (Figure 4, *Site Plan*). The site would connect to existing utilities for electricity, water, and sewer within adjacent roadways and would also require installation of two water quality basins.

In addition, the project would build an extension southward of Sky Canyon Drive from its current southern terminus to connect the roadway with Willows Avenue. The extension of Sky Canyon Drive is considered a Planned Road under the policies of Section 7.3 of the MSHCP (Dudek 2003). To avoid impacts to adjacent Tualota Creek, the Sky Canyon Drive extension will be constructed using sheet pilings. The sheet pilings will be installed using high frequency vibrators that work above the natural frequency of the existing soil so that only minor negative resonances are generated and therefore reduces disturbance to the surrounding area. High frequency vibrators produce rotating eccentric weight segments in opposite directions, which create vertical vibrations. The vertical vibrations are transferred to the pile element and the neighboring soil swings to achieve a pseudo-liquid condition. Friction is also reduced so that the pile element can penetrate more easily into the soil. Since the high frequency vibrators work at frequencies that are higher than the natural frequencies of the soil, potential damaging resonances to surrounding structures are greatly reduced

## **2.0 METHODS**

### **2.1 GENERAL BIOLOGICAL RESOURCES ASSESSMENT**

HELIX prepared the GBRA for the study area, which addresses project consistency with the MSHCP (HELIX 2018). HELIX conducted a general biological survey on February 2, 2018, which included vegetation mapping and recording of all plant and wildlife species. Prior to conducting field visits, a literature review and records search were conducted for special-status species potentially occurring on or within the vicinity of the study area.

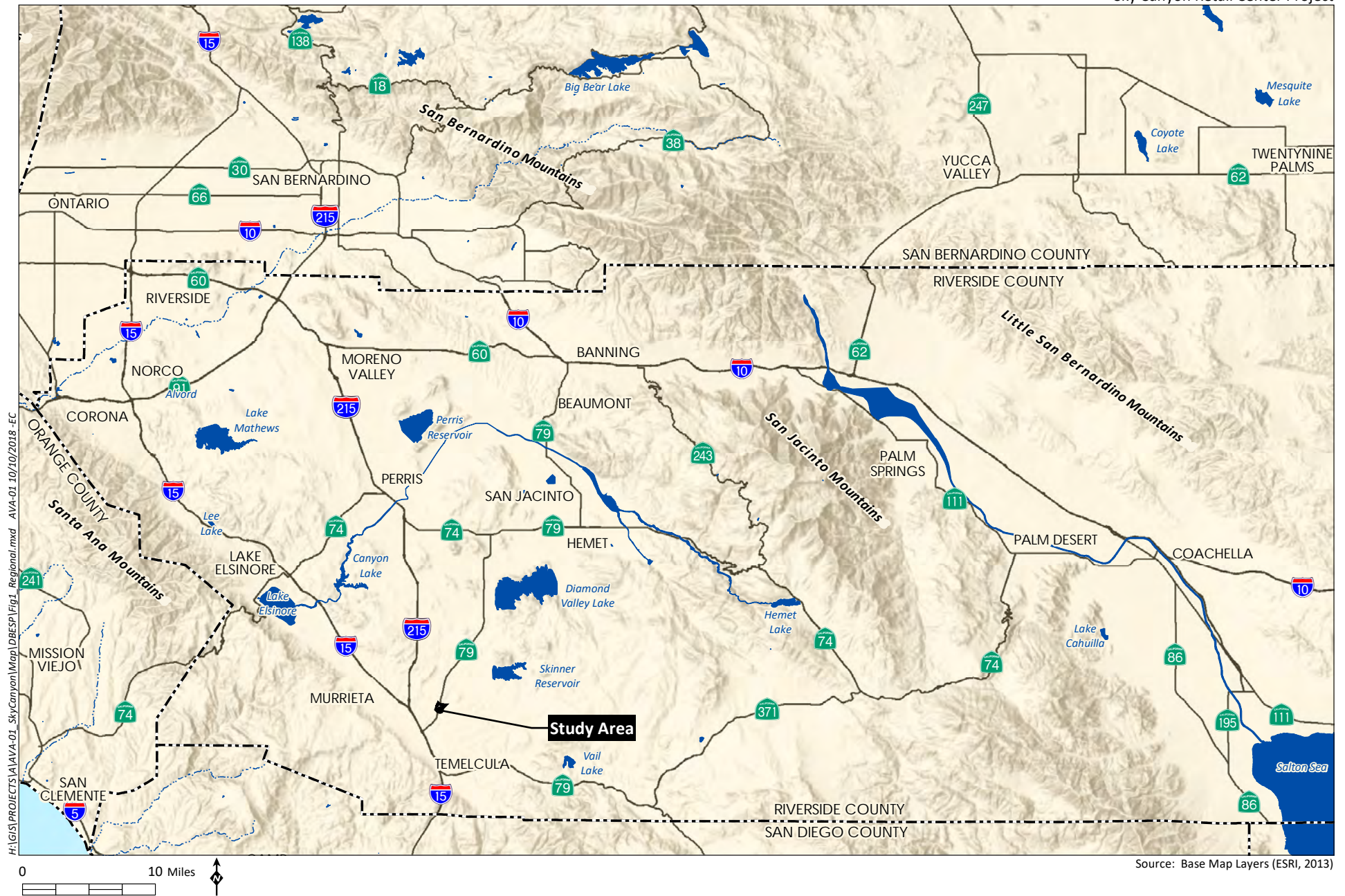
### **2.2 RIPARIAN/RIVERINE AREAS**

#### **2.2.1 Habitat Assessment**

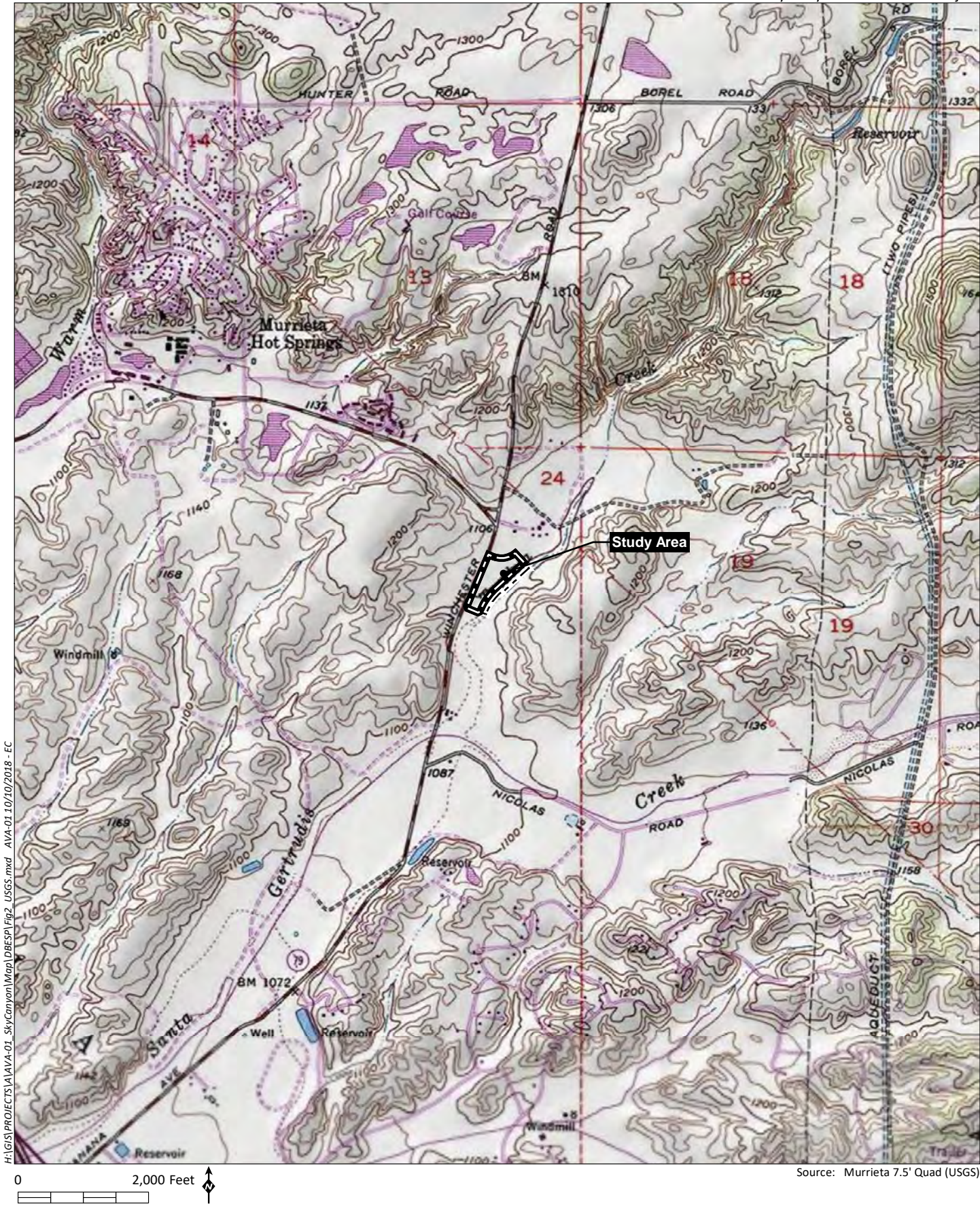
A Riparian/Riverine and Vernal Pool habitat assessment was conducted by HELIX on March 23, 2018. This habitat assessment was conducted concurrently with the jurisdictional delineation. The identification of Riparian/Riverine habitats is based on potential for the habitat to support, or are tributary to habitat that support, Riparian/Riverine Covered Species identified in MSHCP Section 6.1.2.

Riparian/Riverine Areas are defined in MSHCP Section 6.1.2 as:

“Riparian/riverine areas are lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or depend upon soil moisture from a nearby freshwater source; or areas with freshwater flow during all or a portion of the year.”

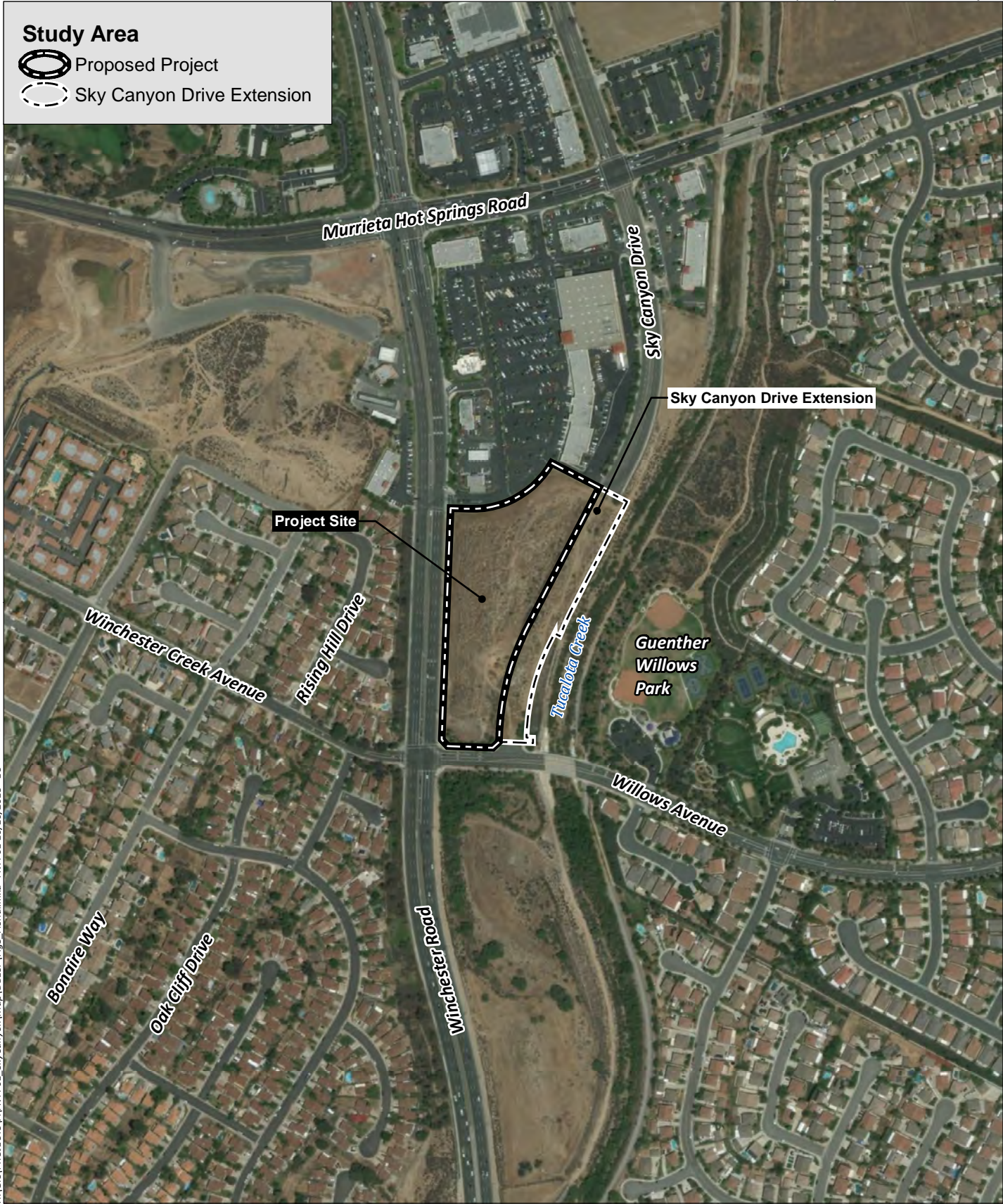






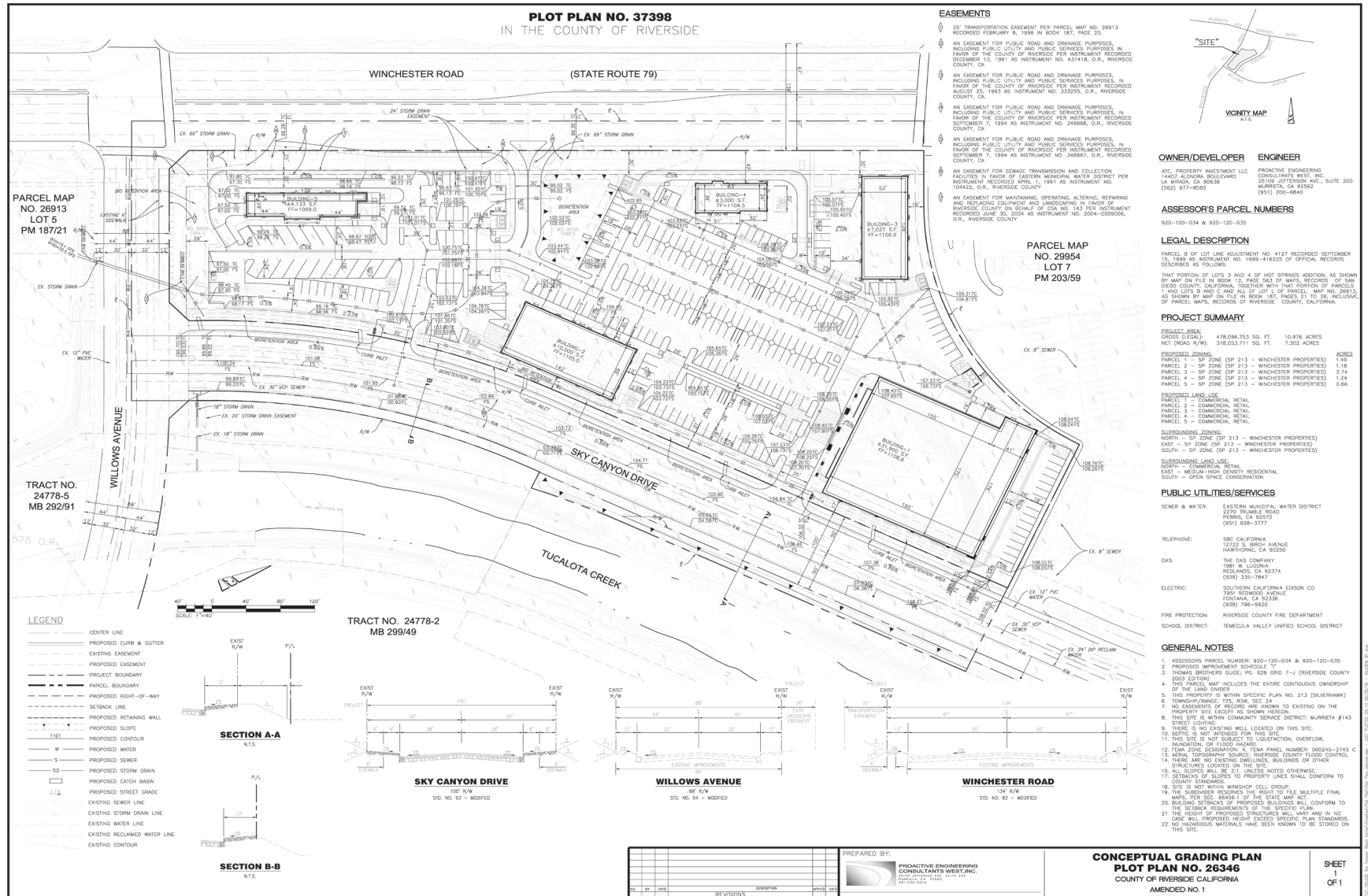
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Source: Proactive Engineering, 2018

Vernal Pools are defined in MSHCP Section 6.1.2 as:

“Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics and the definition of the watershed supporting vernal pool hydrology must be made on a case-by-case basis. Such determinations should consider the length of time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area’s wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.”

## **2.2.2 Formal Jurisdictional Delineation**

HELIX conducted the jurisdictional delineation field work on March 23, 2018. Prior to beginning fieldwork, aerial photographs (1-inch = 100-foot scale), topographic maps (1-inch = 100-foot scale), USGS quadrangle maps, and National Wetlands Inventory maps (U.S. Fish and Wildlife Service [USFWS] 2018) were reviewed to assist determining potential jurisdictional waters and wetlands on the study area. Data collection was targeted in areas that were deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark and/or other surface indications of wetland hydrology.

## **2.3 LEAST BELL’S VIREO**

HELIX conducted a focused survey for the least Bell’s vireo (LBVI) in accordance with current U.S. Fish and Wildlife Service (USFWS) survey protocol (USFWS 2001). The survey consisted of eight site visits conducted between April 24 and July 12, 2018. The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat on the study area while listening for individuals and viewing birds with the aid of binoculars. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by LBVI. The survey area consisted of approximately 0.02 acre of suitable LBVI habitat within the off-site area. In addition, approximately 5.0 acres of adjacent habitat within Tualota Creek was also surveyed, which consisted of mule fat scrub to the east and southern riparian forest to the south of Willows Avenue.

# **3.0 EXISTING CONDITIONS**

## **3.1 STUDY AREA DESCRIPTION**

The study area consists of undeveloped land dominated by non-native herbaceous species with some interspersed buckwheat scrub species in the southeastern portion of the study area. Ornamental trees and shrubs were observed in the southwestern corner of the study area. The periphery of the site is highly disturbed and sparsely vegetated. One jurisdictional feature was mapped in the off-site area, which included a small section of a manmade basin located in the southeastern corner. Although the

majority of the basin is located outside of the study area, a small portion of the southern willow scrub canopy associated with the basin extends into the off-site area. The project site does not support any jurisdictional features. The topography of the study area is mostly flat, with elevations ranging from approximately 1,099 feet (335 meters) above mean sea level (AMSL) at the southern boundary of the study area to a high of approximately 1,114 feet (340 meters) AMSL along the northern boundary. The study area is bounded by commercial development to the north, Tualota Creek to the east, Willows Avenue to the south, and Winchester Road to the west. Undeveloped land is located to the south of Willows Avenue.

Soils on the study area are mapped primarily as Hanford fine sandy loam (0 to 2 percent slopes). The northern portion of the study area is mapped as Hanford coarse sandy loam (2 to 8 percent slopes), Greenfield sandy loam (0 to 2 percent slopes), and Riverwash. The Hanford soil series consists of well-drained soils and is associated with stream bottoms, floodplains, and alluvial fans. The Greenfield series also consists of well-drained soils but is associated with terraces and alluvial fans (Natural Resources Conservation Service 2018). Riverwash consists of excessively drained soils associated with river and stream bottoms. Although the soils mapped on the study area are typically associated with alluvial features, the majority of the study area has not supported natural habitat since at least the 1930s (Historic Aerials 1938).

## 3.2 RIPARIAN/RIVERINE AREAS


Based on the results of the jurisdictional delineation, Riparian/Riverine Areas were identified on the study area. A manmade basin was observed adjacent to the eastern boundary of the off-site area. The majority of the basin is located outside of the study area boundary. However, a small portion of the southern willow scrub canopy associated with the basin extends into the southeastern corner of the off-site area (Figure 5, *MSHCP Riparian/Riverine Areas*). Therefore, the off-site area supports approximately 0.02 acre of Riparian/Riverine Areas.


The basin is not associated with any historic natural drainages and is located outside of the banks of Tualota Creek. However, the basin is hydrologically connected to Tualota Creek to the east only by way of an existing riser pipe that discharges to Tualota Creek just upstream of the Willows Avenue bridge crossing. The basin appears to have been created between 1999 and 2002 when the study area and open land to the north were originally graded (Google Earth 2018). Although never completed, a rough grade of the alignment for the Sky Canyon Drive ROW was also created. The basin was placed between the Sky Canyon Drive ROW and Tualota Creek. The basin is dominated by southern willow scrub and a small portion of the tree canopies extend into the off-site area, including Goodding's black willow (*Salix gooddingii*), mule fat (*Baccharis salicifolia*), tamarisk (*Tamarix* sp.), and Fremont cottonwood (*Populus fremontii*).


It should be noted that a small depressional area was observed in the northeastern portion of the County ROW. The depressional area was artificially created when the rough grade of Sky Canyon Drive was completed. Shallow mud cracks were observed within the depressional area, indicating that some water ponds during the rainy season. However, the cracks were not well-defined suggesting that the area holds water only for a short duration. Soils within the depression are sandy loam consistent with the rest of the study area. No clay dominated soils were observed on the study area. On March 10 and 15, 2018, the Murrieta/Temecula area received 0.37 inch and 0.20 inch of rainfall, respectively (The Weather Company 2018). No water was observed within the depressional area during the jurisdictional delineation conducted by Mr. Morales on March 23, 2018, or during the site visit conducted by



Study Area

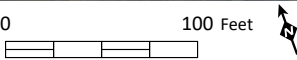
 Proposed Project

 Sky Canyon Drive Extension

 MSHCP Riparian/Riverine



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Source: Base Map Layers (NearMap, 2017)



Mr. Cooley on February 2, 2018. Based on the definition of Riparian/Riverine and Vernal Pools, the MSHCP excludes features that are artificially created. Therefore, this area is not considered an MSHCP Riparian/Riverine Area.

### 3.3 SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS

The definition of Riparian/Riverine Areas is based on potential for the habitat to support associated species, which are identified in MSHCP Section 6.1.2 and described below.

#### 3.3.1 Plants

The MSHCP lists 23 plant species that have a potential to occur in Riparian/Riverine and/or Vernal Pool habitats within the MSHCP Plan Area, which are listed below in Table 1, *MSHCP Riparian/Riverine and Vernal Pool Plant Species*. None of the 23 species were determined to have a potential to occur on the study area based on the species' geographic range, elevation range, preferred habitat, and/or nearby occurrence records.

**Table 1**  
**MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)**  
**RIPARIAN/RIVERINE AND VERNAL POOL PLANT SPECIES**

Common Name	Scientific Name	Habitat
Brand's phacelia	<i>Phacelia stellaris</i>	Sandy washes and/or benches in alluvial flood plains.
California black walnut	<i>Juglans californica</i> var. <i>californica</i>	Open savannahs, creek beds, alluvial terraces, and north-facing slopes.
California Orcutt grass	<i>Orcuttia californica</i>	Vernal pools.
Coulter's matilija poppy	<i>Romneya coulteri</i>	Dry washes and canyons in chaparral and coastal sage scrub communities and disturbed areas.
Engelmann oak	<i>Quercus engelmannii</i>	Woodlands, mixed chaparral, and savannah grasslands.
Fish's milkwort	<i>Polygala cornuta</i> var. <i>fishiae</i>	Shaded, rocky places in canyons associated with woodlands and chaparral.
graceful tarplant	<i>Holocarpha virgata</i> ssp. <i>elongata</i>	Coastal mesas and foothills with grassland habitats.
lemon lily	<i>Lilium parryi</i>	Moist montane meadows.
Mojave tarplant	<i>Deinandra mohavensis</i>	Drainages within arid montane chaparral.
mud nama	<i>Nama stenocarpum</i>	Marshes, swamps, lake margins, and riverbanks along muddy embankments.
ocellated Humboldt lily	<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Shaded montane canyons.

**Table 1 (cont.)**  
**MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)**  
**RIPARIAN/RIVERINE AND VERNAL POOL PLANT SPECIES**

Common Name	Scientific Name	Habitat
Orcutt's brodiaea	<i>Brodiaea orcuttii</i>	Vernally moist grasslands and vernal pools; occasionally occurs along stream embankments within clay soils.
Parish's meadowfoam	<i>Limnanthes gracilis</i> var. <i>parishii</i>	Montane meadows with abundant annual and herbaceous perennials and lack of shrubs.
prostrate navarretia	<i>Navarretia prostrata</i>	Coastal sage scrub, valley and foothill grassland, and vernal pools.
San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>	Vernal pools.
San Jacinto Valley crownscale	<i>Atriplex coronata</i> var. <i>notatior</i>	Highly alkaline and silty-clay soils associated with alkali sink scrub, alkali playa, vernal pool, and annual alkali grassland habitats.
San Miguel savory	<i>Clinopodium chandleri</i>	Coastal sage scrub, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands.
Santa Ana River woolly-star	<i>Eriastrum densifolium</i> spp. <i>Sanctorum</i>	Sandy soils on flood plains and terraces within coastal scrub and chaparral communities.
slender-horned spineflower	<i>Dodecahema leptoceras</i>	Sandy soil associated with alluvial scrub; is often found on stream terraces and banks.
smooth tarplant	<i>Centromadia pungens</i> ssp. <i>laevis</i>	Alkali scrubs, playas, and grasslands; riparian woodland and streams.
spreading navarretia	<i>Navarretia fossalis</i>	Vernal pools, depressions, and ditches.
thread-leaved brodiaea	<i>Brodiaea filifolia</i>	Clay soils in vernal moist grasslands and vernal pool periphery are typical locales.
vernal barley	<i>Hordeum intercedens</i>	Saline flats and depressions in grasslands or vernal pools.

Source: Dudek (2003)

### 3.3.2 Animals

The MSHCP lists 12 sensitive animal species that have a potential to occur in Riparian/Riverine and/or Vernal Pool habitats within the MSHCP Plan Area, which are provided in Table 2, *MSHCP Riparian/Riverine and Vernal Pool Animal Species*. The MSHCP requires focused surveys to be conducted for projects that propose impacts to three invertebrate and three bird species, as described in detail

below. The study area supports suitable habitat for one of the sensitive bird species (LBVI) listed in Table 2 below.

## Invertebrates

There are three sensitive fairy shrimp species that occur in the MSHCP Plan Area, including Riverside fairy shrimp (*Streptocephalus woottoni*), Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), and vernal pool fairy shrimp (*Branchinecta lynchi*). Vernal pool fairy shrimp occurs throughout the Central Valley and in several disjunct populations in Riverside County. This species exists in vernal pools and other ephemeral basins often located in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral. Riverside fairy shrimp occurs in Riverside, Orange, and San Diego Counties as well as in northern Baja California, Mexico. This species is typically found in deeper vernal pools and other ephemeral basins that hold water for long periods of time (30 or more days). Santa Rosa Plateau fairy shrimp is limited to the Santa Rosa Plateau in Riverside County.

The MSHCP requires focused surveys to be conducted for projects that propose impacts to suitable habitat for the three sensitive fairy shrimp species discussed above. Vernal pools are defined as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season” (Dudek 2003). Although fairy shrimp generally occur in vernal pools, they can also occur in artificial depressions that have a similar wet-dry regime as vernal pools. These depressions must have a non-permeable layer that prevents water from percolating down into the subsoils. The non-permeable soil layer generally comprises fine silt and/or clay soil particles that poorly drain water. Rather than percolating through the subsoils, water leaves the depressions through evaporation. Due to prolonged submersion, vernal pools and similar artificial depressional areas will develop anaerobic conditions due to lack of oxygen.

No vernal pool indicators or other wetland features that could support fairy shrimp species were observed during the Riparian/Riverine and Vernal Pool habitat assessment. As described in Section 3.2 above, a small artificially created depressional area was observed in the northeastern portion of the County ROW. This area is not expected to provide suitable habitat fairy shrimp species since the area is shallow and does not pond long enough to support suitable habitat for fairy shrimp. No evidence of hydric soils, vernal pool/wetland vegetation, or vernal pool/wetland hydrology were observed during the habitat assessment. The soils do not consist of clay or silt and are dominated by sandy loam, which is consistent with the rest of the study area. Shallow mud cracks were observed within the depressional area, indicating some water may pond during the rainy season. However, the cracks were not well-defined suggesting that the area holds water only for a short duration due to the sandy loam soils, which percolate relatively quickly. On March 10 and 15, 2018, the Murrieta/Temecula area received 0.37 inch and 0.20 inch of rainfall, respectively (The Weather Company 2018). No water was observed within the depressional area during the jurisdictional delineation conducted by Mr. Morales on March 23, 2018, or during the site visit conducted by Mr. Cooley on February 2, 2018. Since no signs of hydric soils, vernal pool/wetland vegetation, or vernal pool/wetland hydrology were observed during habitat assessment, suitable fairy shrimp habitat is presumed absent from the study area and no focused surveys were required.

## Birds

Riparian/Riverine Areas within the MSHCP Plan Area provide suitable habitat for sensitive bird species, such as LBVI, southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), bald eagle (*Haliaeetus leucocephalus*), and peregrine falcon (*Falco peregrinus*). Typical habitat for LBVI consists of well-developed riparian scrub, woodland, or forest dominated by willows, mule fat, and Fremont cottonwood. LBVI will also use small patches of trees adjacent to dense, riparian habitat. Southwestern willow flycatcher and western yellow-billed cuckoo require mature riparian forest with a stratified canopy and nearby water. Both the bald eagle and peregrine falcon occur primarily in and adjacent to open water habitats, with peregrine falcon occurring in riparian areas.

The MSHCP requires focused surveys to be conducted for projects that propose impacts to suitable habitat for LBVI, southwestern willow flycatcher, and western yellow-billed cuckoo. The study area supports a very small area of suitable habitat (0.02 acre) for LBVI; therefore, a focused survey was required. A focused survey for LBVI was conducted in accordance with USFWS's survey protocol, as described in Section 2.3.2.2 of this report. No LBVIs were observed within suitable habitat on the study area. However, LBVI pairs were observed outside of the study area within Tualota Creek, approximately 175 feet and 400 feet to the south of the study area. The survey methods and results are discussed in detail in a separate letter report, which is provided as Appendix A, *Least Bell's Vireo Focused Survey Report*.

**Table 2**  
**MSHCP RIPARIAN/RIVERINE AND VERNAL POOL ANIMAL SPECIES**

Common Name	Scientific Name	Habitat
Riverside fairy shrimp	<i>Streptocephalus woottoni</i>	Deep vernal pools and other ephemeral basins that hold water for typically 30 or more days.
Santa Rosa Plateau fairy shrimp	<i>Linderiella santarosae</i>	Limited to vernal pools within the Santa Rosa Plateau.
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Vernal pools and other ephemeral basins within patches of grassland and agriculture interspersed in coastal sage scrub and chaparral.
arroyo toad	<i>Anaxyrus californicus</i>	Washes and intermittent streams with open-canopy riparian forest.
California red-legged frog	<i>Rana aurora draytonii</i>	Perennial streams with dense, shrubby riparian vegetation.
mountain yellow-legged frog	<i>Rana muscosa</i>	Perennial waterways, often within open riparian vegetation.
Santa Ana sucker	<i>Catostomus santaanae</i>	Clear, cool perennial streams with loose sand, gravel, cobble, and boulders with algae, aquatic emergent vegetation, macroinvertebrates, and riparian vegetation.
bald eagle	<i>Haliaeetus leucocephalus</i>	Within close proximity to lakes or other water bodies.



**Table 2 (cont.)**  
**MSHCP RIPARIAN/RIVERINE AND VERNAL POOL ANIMAL SPECIES**

Common Name	Scientific Name	Habitat
least Bell's vireo	<i>Vireo bellii pusillus</i>	Well-developed riparian scrub, woodland, or forest.
peregrine falcon	<i>Falco peregrinus</i>	Generally, areas with cliffs or tall buildings near water where prey (shorebirds and ducks) is concentrated.
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Breeds within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons.
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Extensive stands of mature riparian woodland.

Source: Dudek (2003)

## 4.0 PROJECT IMPACTS

### 4.1 IMPACTS TO RIPARIAN/RIVERINE AREAS

Project construction would require permanent impacts to 0.02 acre of MSHCP Riparian/Riverine Areas consisting of southern willow scrub in the off-site area (Figure 6, *Impacts to MSHCP Riparian/Riverine Areas*). Permanent impacts are required by the County in order to complete the extension of Sky Canyon Drive, which is considered a Planned Road under the policies of Section 7.3 of the MSHCP and is therefore an MSHCP Covered Activity (Dudek 2003).

No temporary impacts to Riparian/Riverine Areas would occur as a result of the project. Project impacts shown on Figure 6 include all grading and access areas required for construction. Therefore, there would be no additional impacts beyond the impacts shown, including temporary impacts. Construction grading, access, staging, and storage areas would be restricted to the project footprint.

### 4.2 IMPACTS TO SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS

The project impacts would result in the loss of 0.02 acre of Riparian/Riverine Areas; however, the impact areas do not support Riparian/Riverine or Vernal Pool target species and do not contribute substantially to the biological values of the MSHCP since the site is not within a Criteria Cell or Group cell targeted for conservation. Although the off-site area supports a small area of suitable LBVI habitat, no LBVIs were detected on the study area during focused survey and LBVI is currently presumed absent from the study area. Therefore, the project would not directly impact any MSHCP Section 6.1.2 species associated with Riparian/Riverine Areas or Vernal Pools.

Two LBVI pairs were observed to the south of the study area within higher quality southern riparian forest habitat associated with Tucalota Creek. Since LBVIs were observed within the vicinity of the study area, project construction could have indirect impacts to LBVI occupying habitat to the south of the

Willows Avenue. Post-project noise associated with the proposed commercial development is not anticipated to indirectly impact LBVI for the following reasons:

1. The proposed commercial development and off-site occupied habitat would be separated by Willows Avenue, which is a four-lane road approximately 60 feet wide. Based on a noise analysis conducted for the project, existing noise within the occupied habitat is currently above an hourly average of 60 A-weighted decibels (dBA; Appendix B, *Noise Analysis Report*). Noise from the proposed car wash, which would be located in the southwest corner of the study area, would generate noise levels below an hourly average of 45 dBA. When the car wash noise is combined with existing noise levels, noise levels within the occupied habitat would not increase by more than an hourly average of 0.1 dBA.
2. The loudest single-source of noise generated by the proposed car wash would be the air-blast dryer systems (blower; Appendix B). The proposed car wash would be oriented in a fashion that directs blower noise away from occupied habitat. Cars would enter the car wash bay from the south end and exit at the north end.
3. Existing ornamental trees planted on the north side and south side of Willows Avenue would provide a visual barrier between the proposed commercial development and off-site occupied habitat.

## 5.0 AVOIDANCE, MINIMIZATION, AND MITIGATION

### 5.1 AVOIDANCE

#### 5.1.1 Riparian/Riverine Area

Emphasis of the MSHCP Riparian/Riverine Area and Vernal Pool policy is on conservation of habitats capable of supporting MSHCP Covered Species. Furthermore, the goal of the DBESP process is to determine if the project has in fact provided a project alternative that results in biologically equivalent or superior preservation. The first priority for Riparian/Riverine Areas that have potential to contribute to the biological values of the MSHCP preserve is avoidance of direct impacts.

MSHCP Section 6.1.2 states:

“The purpose of the procedures described in this section is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that Habitat values for species inside MSHCP Conservation Areas are maintained.”

The MSHCP also states that:

“[f]or identified and mapped resources not necessary for inclusion in the MSHCP Conservation Area, applicable mitigation under CEQA, which may include federal and state regulatory standards related to wetland functions and values, will be imposed by the Permittees. To ensure that these standards are met, Permittees shall ensure that, through the CEQA process, project applicants develop project alternatives demonstrating efforts that first avoid, and then minimize







direct and indirect effects to the mapped wetlands and shall review these alternatives with the Permittee. An avoidance alternative shall be selected, if feasible. If an avoidance alternative is selected, measures shall be incorporated into the project design to ensure the long-term conservation of the areas to be avoided.

If an avoidance alternative is not feasible, a practicable alternative that minimizes direct and indirect effects to riparian/riverine areas and vernal pools and associated functions and values to the greatest extent possible shall be selected. Those impacts that are unavoidable shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth below under the Determination of Biologically Equivalent or Superior Preservation.”

The Applicant has worked diligently to minimize impacts to MSHCP Riparian/Riverine Areas. Impacts to MSHCP Riparian/Riverine Area are limited to only what is required to complete the extension of Sky Canyon Drive, which includes minor permanent impact to 0.02 acre of southern willow scrub canopy. Although the project is adjacent to Tualota Creek, revetment in the form of sheet pilings will occur outside of Riparian/Riverine Areas associated with the creek. In accordance with MSHCP Section 7.3, the project is a Planned Road within the plan area. Under the MSHCP, such public development is considered a Covered Activity (Dudek 2003).

### 5.1.2 Least Bell's Vireo

The project would not directly impact LBVI. Since LBVIs were observed within the vicinity of the study area, project construction could potentially have indirect impacts to LBVI occupying habitat to the south of the Willows Avenue. Therefore, the following avoidance measure was included as BIO-2 in the GBRA:

**BIO-2 Least Bell's Vireo:** Due to presence of LBVI in the vicinity of the study area, the following avoidance and minimization measures shall be implemented to avoid potential impacts:

1. To the extent feasible, construction activities (i.e., earthwork, clearing, and grubbing) shall occur outside of the nesting season for LBVI (September 1 through March 14). All pile driving activities required for the Sky Canyon Drive extension shall be conducted outside of the LBVI nesting season.
2. If construction activities are proposed within the LBVI nesting season (March 15 through August 31), the following measures (a. through g.) shall be implemented to avoid potential indirect impacts. Pile driving activities shall not be conducted in the LBVI nesting season.
  - a. Prior to initiation of construction activities, a qualified biological monitor shall clearly delineate a 300-foot avoidance buffer around suitable habitat. The 300-foot avoidance buffer shall be clearly marked with flags and/or fencing prior to commencement of construction. No construction activities shall occur within the 300-foot buffer during the nesting season without the presence of a biological monitor.

- b. If construction activities (e.g., ground disturbance and canopy trimming) are planned within 300 feet of suitable habitat, the following measures shall be implemented:
  - i. A biological monitor shall be present to perform daily surveys for LBVI and monitor construction activities. The biological monitor shall have the authority to stop work and notify the construction supervisor if the construction activities appear to be altering the birds' normal behavior. The activities shall cease until additional minimization measures have been determined through coordination with CDFW and/or USFWS.
  - ii. A qualified acoustician shall also be retained to determine ambient noise levels and construction-related noise levels at the edge of suitable habitat. Noise levels at the edge of the suitable habitat shall not exceed an hourly average of 60 dBA, or an hourly average increase of 3 dBA if existing ambient noise levels exceed 60 dBA. If project-related noise levels exceed the threshold described above, construction activities shall cease until additional minimization measures are taken to reduce project-related noise levels to below an hourly average of 60 dBA, or below an hourly average increase of 3 dBA if existing ambient noise levels exceed 60 dBA. If additional measures do not decrease project-related noise levels below the thresholds described above, construction activities shall cease until CDFW and/or USFWS are contacted to discuss alternative methods.
- c. All project personnel shall attend a Workers Environmental Awareness Program training presented by a qualified biologist prior to construction activities. The training program will inform project personnel about the life history of LBVI and all avoidance and minimization measures.
- d. The construction contractor shall only allow construction activities to occur during daylight hours.
- e. The construction contractor shall require functional mufflers on all construction equipment (stationery or mobile) used within or immediately adjacent to any 300-foot avoidance buffers to reduce construction equipment noise. Stationary equipment shall be situated so that noise generated from the equipment is not directed towards any suitable habitat for the LBVI.
- f. The construction contractor shall place staging areas as far as possible from any suitable habitat for the LBVI.
- g. The biological monitor shall prepare written documentation of all monitoring activities at the completion of construction activities, which shall be submitted to CDFW and/or USFWS.

## 5.2 MINIMIZATION

The project would incorporate the following minimization measures to reduce the overall impact on Riparian/Riverine Areas to the maximum extent:

- Implementation of standard Best Management Practices (BMPs) to minimize the impacts during construction and post-construction.
  - Construction BMPs may include, but are not limited to, erosion control measures, stabilized construction entrances, silt fencing, and gravel bags. Measures would include those required for construction pursuant to the State Water Resources Control Board General Construction Storm Water Permit and the project Storm Water Pollution Prevention Plan (SWPPP).
  - Post-construction BMPs may include, but are not limited to, prohibiting dumping of oils, paint, or other hazardous waste into streets and storm drains; requiring covered trash containers; routine street sweeping; and/or providing education materials to residents. Measures would be implemented in compliance with the National Pollutant Discharge Elimination System and the Municipal Storm Drain Permit requirements.
- Applicable Standard BMPs included as Appendix C to the MSHCP would be implemented, including, but not limited to, delineating the limits of disturbance to Riparian/Riverine Areas prior to construction, storing equipment outside of the Riparian/Riverine Areas, placing staging areas outside of the Riparian/Riverine Areas, not depositing erodible fill material into the Riparian/Riverine Areas; and/or disposing all debris and trash items (Dudek 2003).
- Source control and treatment control BMPs would be implemented to minimize the potential contaminants that are generated during and after construction.
  - Source control BMPs may include education/training for residents, irrigation system and landscape maintenance, common area litter control, street sweeping, drainage facility inspection and maintenance, restricting overuse of fertilizations, municipal separate storm sewer systems stenciling and signage, and/or protection of slopes and channels (e.g., vegetation, riprap, etc.).
  - Treatment-control BMPs would include bioretention basins. Water quality BMPs would be implemented according to the project's Water Quality Management Plan and SWPPP. The water quality BMPs would be designed to avoid hydromodification, including discharge of sediment and/or pollutants during construction, and capture and treatment of all pollutants of concern before they are discharged from the residential development post-construction.
- All BMPs would be consistent with the California Stormwater Quality Association guidelines and County water quality standards.
- Site drainage on the commercial development would consist of subsurface storm drain systems and bioretention basins, which would treat on-site flows and address increased runoff from impervious surfaces associated with the development.

In conformance with MSHCP Section 6.1.4, the project would reduce edge effects to the urban/wildland interface through the following measures:

- Drainage: Flows generated by the project would not directly drain into any MSHCP Conservation Areas that could ultimately reach a downstream Conservation Area. Therefore, construction and post-construction BMPs would be implemented to maintain water quality. All runoff from the development area would be treated prior to exiting the site to reduce pollutants of concern.
- Toxics: The project would not discharge toxics that may adversely affect wildlife species, habitat, or water quality.
- Lighting: Temporary construction lighting and ambient lighting generated by the project is required to be selectively placed, directed, and shielded away from any MSHCP Conservation Area. Large spotlight-type lighting directed into conserved habitat are prohibited.
- Invasives: No invasive plants identified in Table 6-2 of the MSHCP would be used for erosion control, landscaping, wind rows, or other purposes within the study area.
- Grading/Land Development: No manufactured slopes associated with the project would extend into any MSHCP Conservation Area.

## 5.3 MITIGATION

To offset impacts to 0.02 acre of MSHCP Riparian/Riverine Areas, the Applicant will purchase off-site in-lieu fee credits from Skunk Hollow Mitigation Bank at a ratio of 3:1 (0.06 acre). Skunk Hollow Mitigation Bank offers wetland preservation credits within the Santa Margarita Watershed. Purchase of in-lieu fee credits from Skunk Hollow Mitigation Bank provides preservation within the same watershed of a higher-value resource (wetlands) than what the project proposes impacts to (riparian vegetation). Skunk Hollow Mitigation Bank was contacted to confirm availability of 0.06 acre credits (Michael McCollum, personal communication, May 14, 2019).

## 6.0 CONCLUSION

This DBESP demonstrates that the proposed project is consistent with MSHCP Section 6.1.2 based on the following:

- The study area is not located within any Criteria Cell or Group Cell that is targeted for conservation by the MSHCP. As such, there are no requirements for MSHCP Biological Issues and Considerations.
- The study area does not support suitable habitat for Riparian/Riverine or Vernal Pool plant species and, therefore, no impacts are anticipated by the project.
- The study area does not support suitable habitat for 11 of the 12 Riparian/Riverine or Vernal Pool animal species. LBVI was not observed on the study area during focused surveys, although two pairs were observed within Tualota Creek to the south of the study area. The project would not directly impact LBVI, although indirect impacts could occur during project construction. Implementation of measure BIO-2 would avoid indirect impacts to LBVI during

construction. Based on the noise analysis, the project is not expected to generate increased ambient noise within the occupied habitat (Appendix B).

- Avoidance of 100 percent of the Riparian/Riverine Areas is not feasible since a small portion of southern willow scrub will be permanently impacted to complete the County-required extension of Sky Canyon Road, which is considered a Planned Road under the policies of Section 7.3 of the MSHCP and is therefore an MSHCP Covered Activity.
- In conformance with the stated goals of the MSHCP, impacts to Riparian/Riverine Areas have been minimized to the maximum extent practicable through project design.
- Mitigation for permanent impacts to 0.02 acre of Riparian/Riverine Areas would occur at a 3:1 mitigation ratio through the purchase of in-lieu fee credits from Skunk Hollow Mitigation Bank.
- The project is consistent with MSHCP Section 6.1.2 since it would provide biologically superior preservation. Permanent impacts to 0.02 acre of Riparian/Riverine Areas would be mitigated through the purchase of streambed in-lieu fee credits at a 3:1 ratio. Therefore, the proposed mitigation for permanent impacts to Riparian/Riverine Areas meets the definition of a Biologically Equivalent Preservation Alternative.
- The project is consistent with MSHCP Section 6.1.4 since indirect impacts would be minimized by implementing BMPs, designing access control, and controlling exotic species. The project would not introduce drainage, toxics, night lighting, manufactured slopes, or fuel modification zones into any MSHCP Conservation Area.



## 7.0 REFERENCES

- Dudek and Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Final MSHCP, Volume I. Prepared for the County of Riverside Transportation and Land Management Agency. Approved June 17.
- HELIX Environmental Planning, Inc. 2018. General Biological Resources Assessment for the Sky Canyon Retail Center Project, Riverside County, California. November 2, 2018.
- Historic Aerials. 1938. Aerial imagery of Sky Canyon Retail Center Project, 33.548367°, -117.141017°. Retrieved from: <https://www.historicaerials.com/viewer>. Accessed April 3, 2018.
- Google Earth. 2018. Aerial imagery of the Sky Canyon Retail Center Project study area, 33.548367°, -117.141017°. Aerial Imagery from May 2002. Retrieved from: <https://earth.google.com/web/>. Accessed April 3, 2018.
- Natural Resources Conservation Service. 2018. Web Soil Survey. United States Department of Agriculture. Retrieved from: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed April 3, 2018.
- U.S. Fish and Wildlife Service. 2018. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Retrieved from: <http://www.fws.gov/wetlands/>. Accessed April 3, 2018.
2001. Least Bell's vireo survey guidelines. January 19. Retrieved from: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/docs/lbv/leastbellsvireo\\_survey-guidelines.pdf](http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/lbv/leastbellsvireo_survey-guidelines.pdf).
- Weather Company, The. 2018. Weather History for KF70 – March 2018. Retrieved from: <https://www.wunderground.com/history/airport/KF70/>. Accessed September 6, 2018.

## Appendix A

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### Least Bell's Vireo Focused Survey Report

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August 22, 2018

AVA-01

Ms. Stacey Love  
U.S. Fish and Wildlife Service  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008

Subject: 2018 Least Bell's Vireo (*Vireo bellii pusillus*) Survey Report for the Sky Canyon Retail Center Project

Dear Ms. Love:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the federally endangered least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Sky Canyon Retail Center (project). This letter describes the survey methods and results and is being submitted to the USFWS in accordance with protocol survey guidelines.

## PROJECT LOCATION

The approximately 7.31-acre project site comprises two parcels with Assessor Parcel Number 920-120-034 and -035 located in unincorporated Riverside County, California. The project site is generally located to the north of the City of Temecula and east of the Interstate (I-) 215 and I-15 junction (Figure 1). The project site is located in the U.S. Geological Survey (USGS) 7.5-minute Murrieta quadrangle map within Township 7 South, Range 3 West, Section 24 (Figure 2). Specifically, the project site is located directly northeast of the intersection of Winchester Road (State Route 79) and Willows Avenue (Figure 3).

The project also includes an approximately 2.53-acre off-site area located within a portion of the right-of-way associated with the extension of Sky Canyon Drive. The off-site area is located along the southeastern project boundary (Figure 3).

## METHODS

The survey consisted of eight site visits led by qualified HELIX biologist Lauren Singleton between April 24 and July 12, 2018 (Table 1) in accordance with the current USFWS survey protocol (2001). The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat in the survey area while listening for LBVI and viewing birds with the aid of binoculars. The survey route was designed to ensure complete survey coverage of habitat potentially occupied by LBVI. The survey area consisted of approximately 0.02 acres of suitable LBVI habitat within the off-site area, including

southern willow scrub (Figure 4). No suitable habitat was observed on the project site. Accessible suitable habitat in the immediate vicinity was also surveyed, which included approximately 5.00 acres of mule fat scrub and southern riparian forest. Table 1 details the survey dates, times, and conditions.

## SURVEY RESULTS

A total of two LBVI pairs were detected adjacent to the project site during the 2018 survey effort (Figure 4). No LBVI were detected on the project site. Both pairs were observed to the south of the project site, south of Willows Avenue. No banded individuals were observed during the survey; however, not all individuals were directly observed. A detailed description of LBVI locations and observations is included below.

A LBVI pair (Pair No. 1) was detected approximately 175 feet to the southwest of the project site within a basin located to the west of Tualata Creek (Figure 4). A male was heard singing during the first survey while surveying the southern willow scrub located within the off-site area. A male and female were observed foraging together during the second survey in the same general area. A male was heard singing during the third survey in the same general area and is presumed to be the same male observed during the previous two surveys. The pair was observed foraging again during the fourth survey, and the male was heard singing during the fifth survey. No vireos were detected at this location during the sixth, seventh, or eighth surveys.

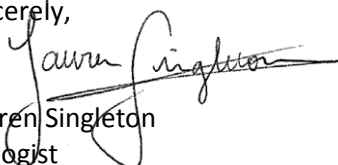
A LBVI pair (Pair No. 2) was observed approximately 400 feet to the southeast of the project site within Tualata Creek (Figure 4). A male was heard singing during the first survey while surveying the southern willow scrub located within the off-site area. The male was heard singing during the second and third surveys in the same general area. A male and female were observed foraging together during the fourth survey in the same general area. A male was heard singing during the fifth, sixth, seventh, and eighth and is presumed to be the same male detected during the previous surveys.

The brown-headed cowbird (*Molothrus ater*; BHCO), a nest parasite of the LBVI, was detected during four of the eight surveys in three separate locations (Figure 4). Observations of BHCO included singing males and calling females.

## CERTIFICATION

I certify that the information in this survey report and attached exhibits fully and accurately represents our work. Please contact me or Amir Morales at (949) 234-8792 should you have any questions.

Sincerely,

  
Lauren Singleton  
Biologist

**Attachments:** Figure 1: Regional Location  
Figure 2: USGS Topography  
Figure 3: Aerial Photograph  
Figure 4: 2018 Least Bell's Vireo Survey Results

**Table 1**  
**SURVEY INFORMATION**

Site Visit	Survey Date	Biologist	Time Start-End	Approx. Acres Surveyed/Acres per Hour <sup>1</sup>	Start/Stop Weather Conditions	Survey Result	
						Least Bell's Vireo (LBVI)	Brown-Headed Cowbird <sup>2</sup>
1	04/24/18	Lauren Singleton	0715-1100	5.02 ac/ 1.34 ac per hr	55°F, wind 0-1 mph, 15% clouds 71°F, wind 3-4 mph, 50% clouds	<ul style="list-style-type: none"> <li>Male (later determined to be same male as in Pair No. 1) singing to the south of the project site, southeast of Winchester Avenue-Willows Avenue. intersection.</li> <li>Male (later determined to be same male as in Pair No. 2) singing to south of the project site, to the south of Willows Avenue within Tucalota Creek.</li> </ul>	0
2	05/10/18	Lauren Singleton	0735-1045	5.02 ac/ 1.58 ac per hr	60°F, wind 0-1 mph, 0% clouds 70°F, wind 3-4 mph, 0% clouds	<ul style="list-style-type: none"> <li>Pair No. 1 foraging in the same general area.</li> <li>Male from Pair No. 2 singing in the same general area.</li> </ul>	0
3	05/22/18	Lauren Singleton	0715-1045	5.02 ac/ 1.43 ac per hr	52°F, wind 2-3 mph, 100% clouds 59°F, wind 3-4 mph, 100% clouds	<ul style="list-style-type: none"> <li>Male from Pair No. 2 singing in the same general area.</li> </ul>	0
4	06/01/18	Lauren Singleton	0715-1100	5.02 ac/ 1.34 ac per hr	57°F, wind 3-4 mph, 90% clouds 71°F, wind 3-4 mph, 0% clouds	<ul style="list-style-type: none"> <li>Pair No. 1 foraging and singing in the same general area.</li> <li>Pair No. 2 foraging and singing in the same general area.</li> </ul>	0
5	06/11/18	Lauren Singleton	0650-0930	5.02 ac/ 1.88 ac per hr	64°F, wind 0-1 mph, 0% clouds 74°F, wind 1-2 mph, 0% clouds	<ul style="list-style-type: none"> <li>Male from Pair No. 1 singing in the same general area.</li> <li>Male from Pair No. 2 singing in the same general area.</li> </ul>	0
6	06/21/18	Lauren Singleton	0645-0945	5.02 ac/ 1.67 ac per hr	63°F, wind 0-1 mph, 100% clouds 69°F, wind 2-3 mph, 0% clouds	<ul style="list-style-type: none"> <li>Male from Pair No. 2 singing in same general area.</li> </ul>	5
7	07/02/18	Lauren Singleton	0620-0945	5.02 ac/ 1.47 ac per hr	58°F, wind 0-1 mph, 100% clouds 68°F, wind 0-1 mph, 0% clouds	<ul style="list-style-type: none"> <li>Male from Pair No. 2 singing in same general area.</li> </ul>	3
8	07/12/18	Lauren Singleton	0700-1030	5.02 ac/ 1.43 ac per hr	70°F, wind 1-2 mph, 20% clouds 83°F, wind 2-3 mph, 40% clouds	<ul style="list-style-type: none"> <li>Male from Pair No. 2 singing in same general area.</li> </ul>	0

<sup>1</sup> Approximately 0.02 acre of southern willow scrub was surveyed in the off-site area and approximately 5.00 acres of habitat was surveyed in areas adjacent to the project site and off-site area.

<sup>2</sup> Number of brown-headed cowbird (*Molothrus ater*) detected during survey.

## REFERENCES

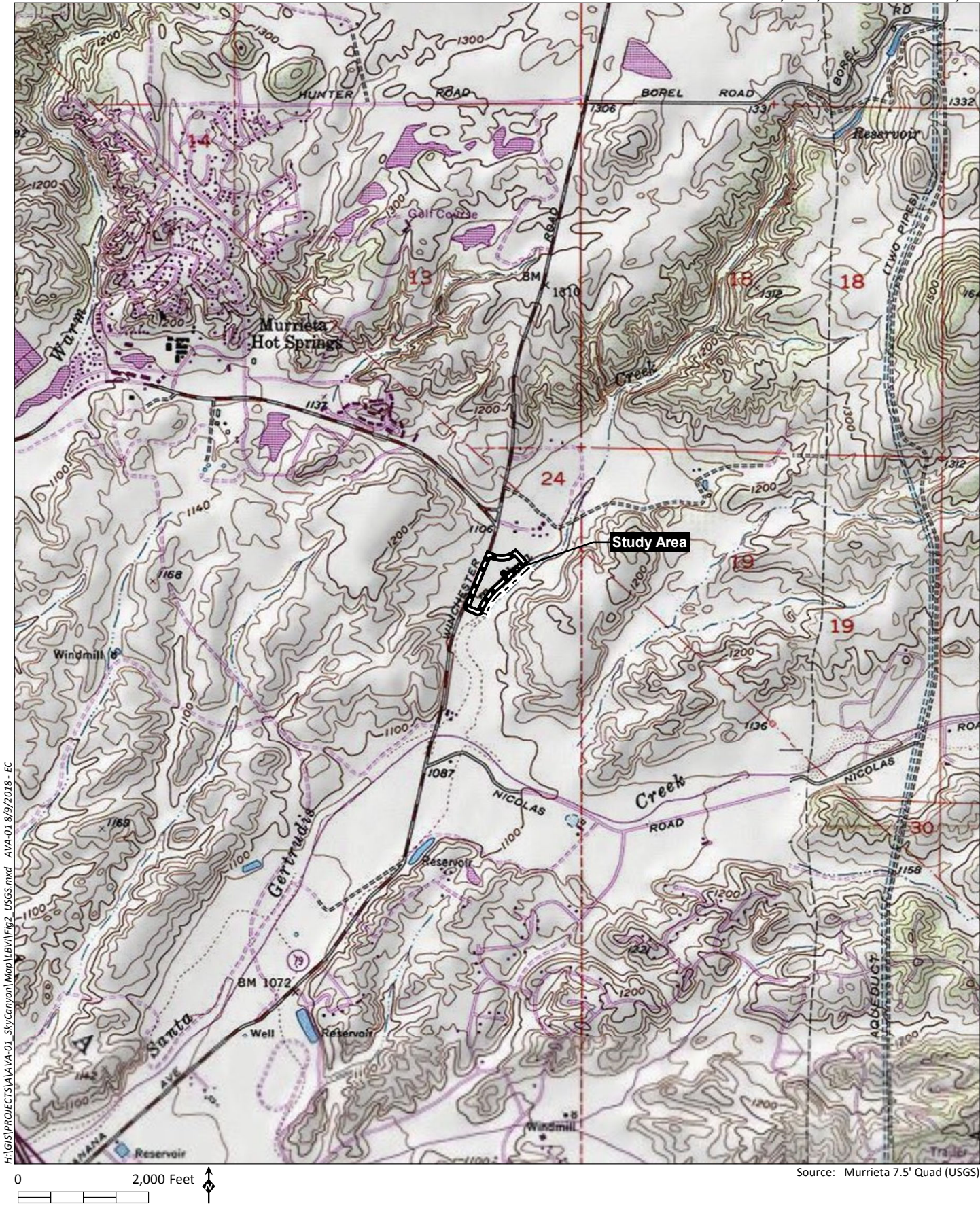
U.S. Fish and Wildlife Service (USFWS). 2001. Least Bell's Vireo Survey Guidelines. January 19.





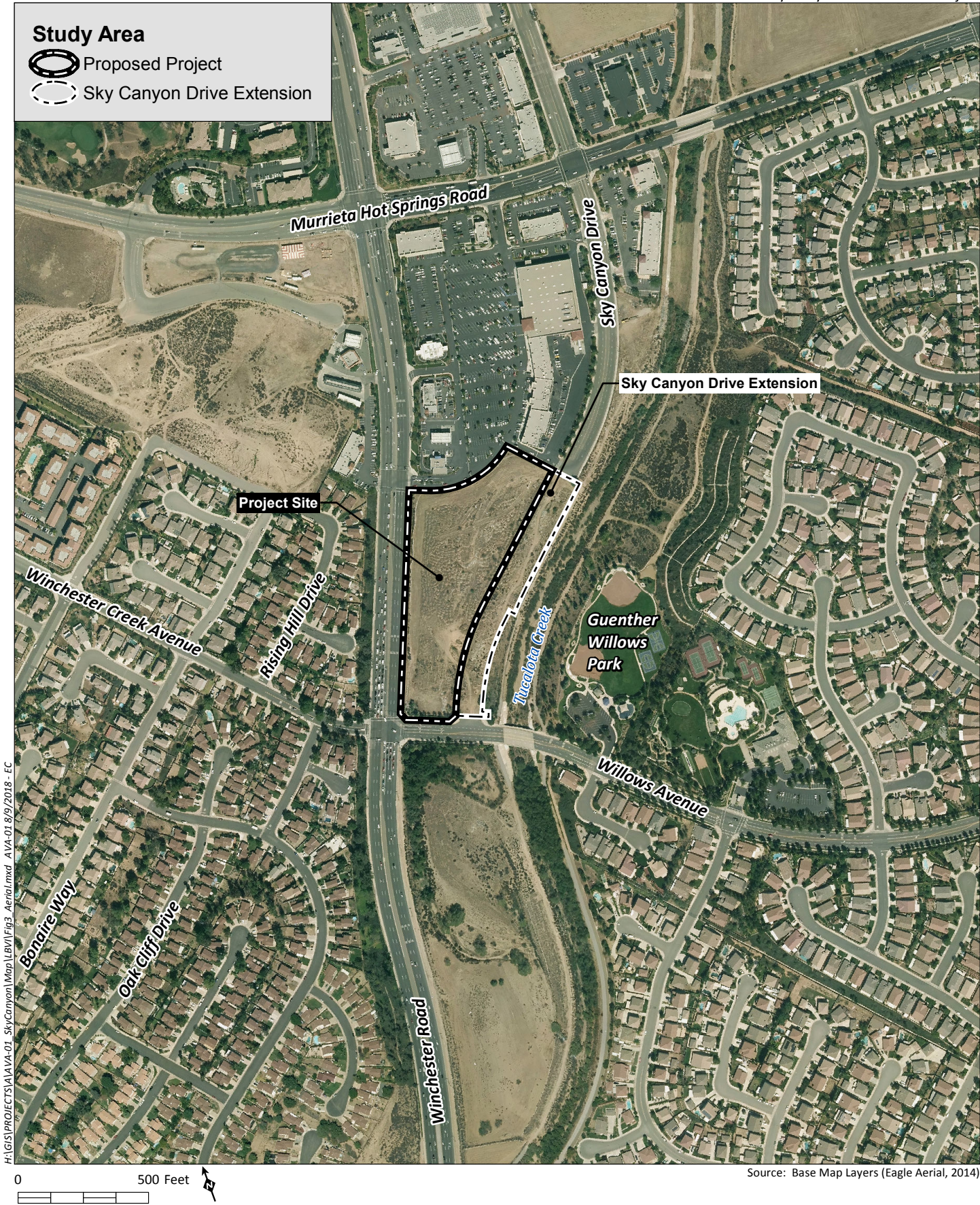
## Figure 1





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## Appendix B

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### Noise Analysis Report



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August 19, 2019

Ara Tchaghlassion  
AVA Property Investments, LLC  
144407 Alondra Boulevard  
La Mirada, CA 90638

Subject: Sky Canyon Retail Center Project Car Wash Noise Analysis at Biologically Sensitive Habitat

Dear Mr. Tchaghlassion:

HELIX Environmental Planning, Inc. (HELIX) has performed a noise analysis for the operational noise impacts of a future car wash within the proposed Sky Canyon Retail Center Project (project), focusing on potential noise impacts to the nearby biologically sensitive habitat. This letter supplements the full noise impact analysis for the project prepared by HELIX in June 2019, which analyses additional aspects of project components, including construction (HELIX 2019).

## **PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING**

The project would construct a commercial and retail center with five buildings on a 7.3-acre site. Project components include a 31,900 square foot (SF) Smart and Final grocery store, 10,000 SF of retail space, a 7,500 SF tire shop, 3,000 SF restaurant with attached drive-thru, and a 4,300 SF car wash. The car wash building would be the southernmost building in the project, with cars entering the car wash tunnel to the south. Noise-producing equipment would be located internally within the enclosed car wash building.

The project would include a southern extension of the existing Sky Canyon Drive from its current terminus just north of the project. Sky Canyon Drive would connect to Willows Avenue at an existing turnout approximately 340 feet east of the intersection of Willows Avenue and Winchester Road. Access to the project would be provided by driveways onto nearby roadways, including one on Winchester Road, and three on Sky Canyon Drive.

According to the project's General Biological Resources Assessment (HELIX 2018), southern riparian forest habitat was observed south of the study area across Willows Avenue. Two least Bell's vireo (LBVI) pairs were observed during a focused survey, approximately 175 feet (on the property at the southeast corner of Willows Avenue and Winchester Road) and 400 feet (within Tualota Creek) south of the project.

## TERMINOLOGY

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels of one hour are expressed by the symbol  $L_{EQ}$ , unless a different time period is specified.

## NOISE MODELING SOFTWARE

Modeling of the car wash operations was accomplished using Computer Aided Noise Abatement (CadnaA) version 2018. CadnaA is a model-based computer program developed by *DataKustik* for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed model for the prediction of outdoor noise impacts.

## NOISE STANDARDS

### Biologically Sensitive Habitat

Some studies, such as that completed by the Bioacoustics Research Team (1997), have concluded that 60 dBA is a criterion to use as a starting point for passerine (perching birds) impacts until more specific research is done. Associated guidelines produced by the U.S. Fish and Wildlife Service (USFWS) require that project noise be limited to a level not to exceed 60 dBA  $L_{EQ}$  or, if the existing ambient noise level is above 60 dBA  $L_{EQ}$ , limit increases to the ambient noise level by 3 dBA  $L_{EQ}$  at the edge of occupied habitat during the avian species breeding season.

## EXISTING NOISE CONDITIONS

### Area Measurement

An ambient noise survey of the project site was conducted on February 1, 2018 for the project's Acoustical Analysis Report (HELIX 2019). One measurement (Site 1) was taken near the habitat, and it was noted that noise from Winchester Road was the dominant noise source. The measurement was taken east of the biologically sensitive habitat, at a farther distance from Winchester Road (see Figure 1, *Car Wash Noise Contours*, for location). The measurement site is located approximately 70 feet north of the centerline of Willows Avenue, 325 feet east of its intersection with Winchester Road. An ambient noise level of 60.7 dBA  $L_{EQ}$  was measured at this location.

### Traffic Noise

As noted above, the dominant noise source at the project site and the biologically sensitive habitat is traffic along Winchester Road. Noise levels at three locations (R1 through R3 as shown on Figure 1) within the biologically sensitive habitat were calculated based on modeling conducted for the project's Acoustical Analysis Report, which used the Traffic Noise Model (TNM) version 2.5 to calculate traffic noise levels (HELIX 2019). These noise levels are calculated based on the traffic volumes from the project's Traffic Impact Analysis (Linscott, Law & Greenspan 2018). Winchester Road generates 3,363 trips during the PM peak hour, and Willows Avenue generates 445 trips during the PM peak hour. Traffic

noise levels at each receiver are displayed in Table 1, *Biologically Sensitive Habitat – Existing Noise Levels*. The locations of these receivers are depicted in Figure 1.

**Table 1**  
**BIOLOGICALLY SENSITIVE HABITAT – EXISTING NOISE LEVELS**

Receiver <sup>1</sup>	Winchester Road Noise Levels	Willows Avenue Noise Levels	Combined Noise Levels
R1	66.3 dBA L <sub>EQ</sub>	59.9 dBA L <sub>EQ</sub>	67.2 dBA L <sub>EQ</sub>
R2	58.8 dBA L <sub>EQ</sub>	59.9 dBA L <sub>EQ</sub>	62.4 dBA L <sub>EQ</sub>
R3	57.7 dBA L <sub>EQ</sub>	59.9 dBA L <sub>EQ</sub>	61.9 dBA L <sub>EQ</sub>

<sup>1</sup>Receivers measured at a 5-foot height.

The ambient noise measurement and calculations based on modeling of existing traffic conditions indicates that noise levels at the biologically sensitive habitat are currently above the 60 dBA L<sub>EQ</sub> limit.

## CAR WASH NOISE ANALYSIS

Noise generated by the car wash is assumed to be from several internal sources. Noise produced by equipment within the car wash structure would be largely contained within the car wash tunnel. However, noise would emanate from the car wash entrance. To model this noise source, noise levels were measured at an existing car wash facility that includes similar equipment to what is proposed for the project to provide reference noise levels from interior noise-generating equipment. At a distance of 60 feet, noise levels during continuous operation of a car wash generate noise levels of approximately 68 dBA L<sub>EQ</sub><sup>1</sup>. For modeling purposes, all systems were analyzed assuming operational use for 30 minutes per given hour. Refer to Table 2, *Car Wash Entrance Noise Data*, and Attachment 1, *Car Wash Measurements*, for additional measurement information.

**Table 2**  
**CAR WASH ENTRANCE NOISE DATA**

Noise Level in Decibels <sup>1</sup> (dB) Measured at Octave Frequency									Overall dBA
31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
43.0	88.0	88.0	83.0	79.0	85.0	73.0	59.0	57.0	86.3

Hz = hertz, kHz = kilohertz

<sup>1</sup> Sound Power Level (S<sub>WL</sub>)

The loudest single source is the air-blast drying systems (blower) just inside the car wash exit. Exact specifications for the car wash blower system are not available at this point in project design. For the purposes of analysis, a Sonny's Enterprises 45-horsepower blower unit was assumed for the blower unit. The manufacturer's data sheet indicates that the blowers would generate noise levels of 75 dBA L<sub>EQ</sub> at a distance of 100 feet. The sheet is attached as Attachment 2, *Blower Assembly*, and the noise data is shown in Table 3, *Car Wash Blower Noise Data*. All systems were conservatively analyzed assuming

<sup>1</sup> This measurement was taken at a car wash facility located at 5261 Baltimore Drive in La Mesa, California on September 26, 2018. The car wash entrance measurement was measured over the course of approximately 15 minutes. The loudest portion of the car wash cycle was used for this measurement in which a direct line-of-sight was provided. Additional details can be found in Attachment 1.



operational use for 30 minutes per given hour. Although the blower would be the loudest single source of noise, the exit to the car wash tunnel would face north, away from the biologically sensitive habitat.

**Table 3**  
**CAR WASH BLOWER NOISE DATA**

Noise Level in Decibels <sup>1</sup> (dB) Measured at Octave Frequency									Overall dBA
31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
55.5	99.5	99.5	94.5	91.5	97.5	85.5	81.5	69.5	98.8

Hz = hertz, kHz = kilohertz

<sup>1</sup> Sound Power Level (S<sub>WL</sub>)

Table 4, *Site Features Included in the Noise Model*, shows the proposed features at the project site that were included in the CadnaA noise model. These features would affect the emission, obstruction, and reflection of noise from the speaker. To isolate noise generation from the car wash, the model did not include existing traffic noise from vehicles along Willows Avenue, Winchester Road, or the future Sky Canyon Drive extension.

**Table 4**  
**SITE FEATURES INCLUDED**  
**IN THE NOISE MODEL**

Description	Height <sup>1</sup>
Proposed Car Wash Building	15 feet
Blower	8 feet
Car Wash Entrance	10 feet

<sup>1</sup> Heights are estimated from architectural plans and from typical heights of objects/buildings.

Noise levels at nine receivers in three locations within the biologically sensitive habitat were calculated in CadnaA using the data described above. Because the biologically sensitive habitat may contain nesting birds at varying heights in trees, each location was modeled at 5-foot, 10-foot, and 15-foot heights. Additionally, the 60 dBA L<sub>EQ</sub> noise contours as measured at a 5-foot height were modeled. The noise levels for each receiver are depicted in Table 5, *Operational Noise Levels*. The project site plan is depicted on Figure 1, *Site Plan*. The location of the nine receivers and noise contours are depicted on Figure 2, *Car Wash Noise Contours* (see Attachment 3, *Figures*). At the nearby biologically sensitive habitat, noise levels from operation of the car wash would not exceed 45 dBA L<sub>EQ</sub>. When added to the existing traffic noise levels calculated above, operation of the car wash would not be expected to increase noise any biologically sensitive habitat receiver by more than 0.1 dBA L<sub>EQ</sub><sup>2</sup>.

<sup>2</sup> Because decibels are logarithmic units of measurement, they cannot be added by standard arithmetic. A doubling of sound energy corresponds to a 3 dBA increase.

**Table 5**  
**OPERATIONAL NOISE LEVELS**

Receiver	Receiver Height	Car Wash Noise (dBA L <sub>EQ</sub> )
R1	5 feet	43.5
	10 feet	42.3
	15 feet	40.2
R2	5 feet	43.6
	10 feet	42.3
	15 feet	40.2
R3	5 feet	43.7
	10 feet	42.3
	15 feet	40.3

## Conclusions

Existing conditions at the biologically sensitive habitat are currently above 60 dBA L<sub>EQ</sub>. Operation of the project's car wash would generate noise levels below 45 dBA L<sub>EQ</sub>. When car wash noise is combined with existing noise levels, noise levels at the biologically sensitive habitat would not increase by more than 0.1 dBA L<sub>EQ</sub>, which would not exceed the 3 dBA L<sub>EQ</sub> threshold. Impacts to nearby biologically sensitive habitat from car wash noise would be less than significant.



Jason Runyan  
Noise Analyst



Joanne M. Dramko, AICP  
Senior Technical Specialist

## Attachments:

Attachment 1: Car Wash Measurements

Attachment 2: Blower Assembly

Attachment 3: Figures

## REFERENCES

Bioacoustics Research Team. 1997. Environmental Effects of Transportation Noise, A Case Study: Noise Criteria for Protection of Endangered Passerine Birds. University of California, Davis, Transportation Noise Control Center Technical Report 97-001.

HELIX Environmental Planning (HELIX). 2019. Sky Canyon Retail Center Project Acoustical Analysis Report. June.

2018. Sky Canyon Retail Center Project General Biological Resources Assessment. August.

Linscott, Law, & Greenspan. 2018. Traffic Impact Analysis Report for the Sky Canyon Retail Center Project. October 16.

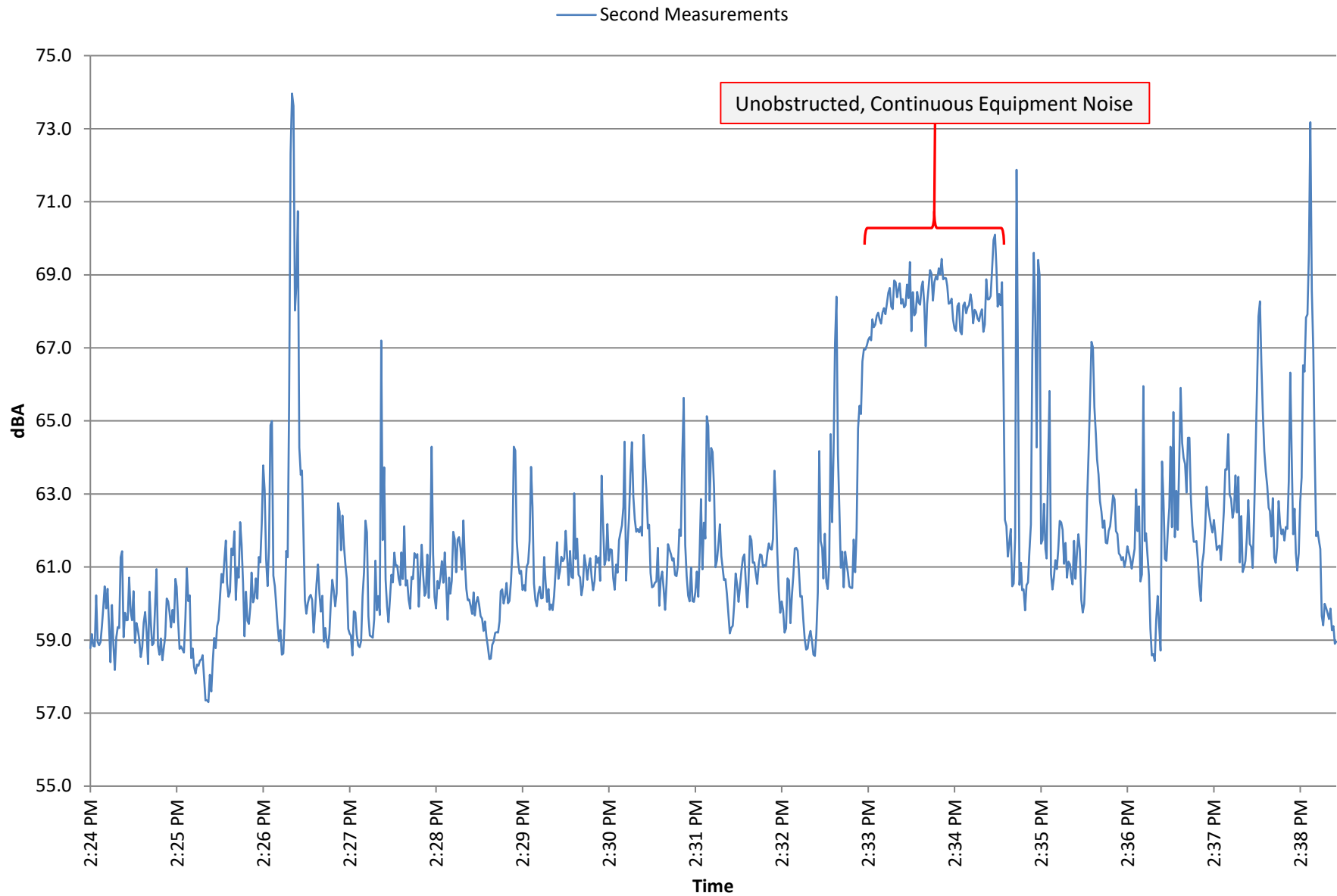


# Attachment 1

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## Car Wash Measurements

## Shell Car Wash Entrance Measurement - September 26, 2018



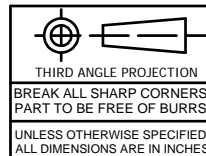
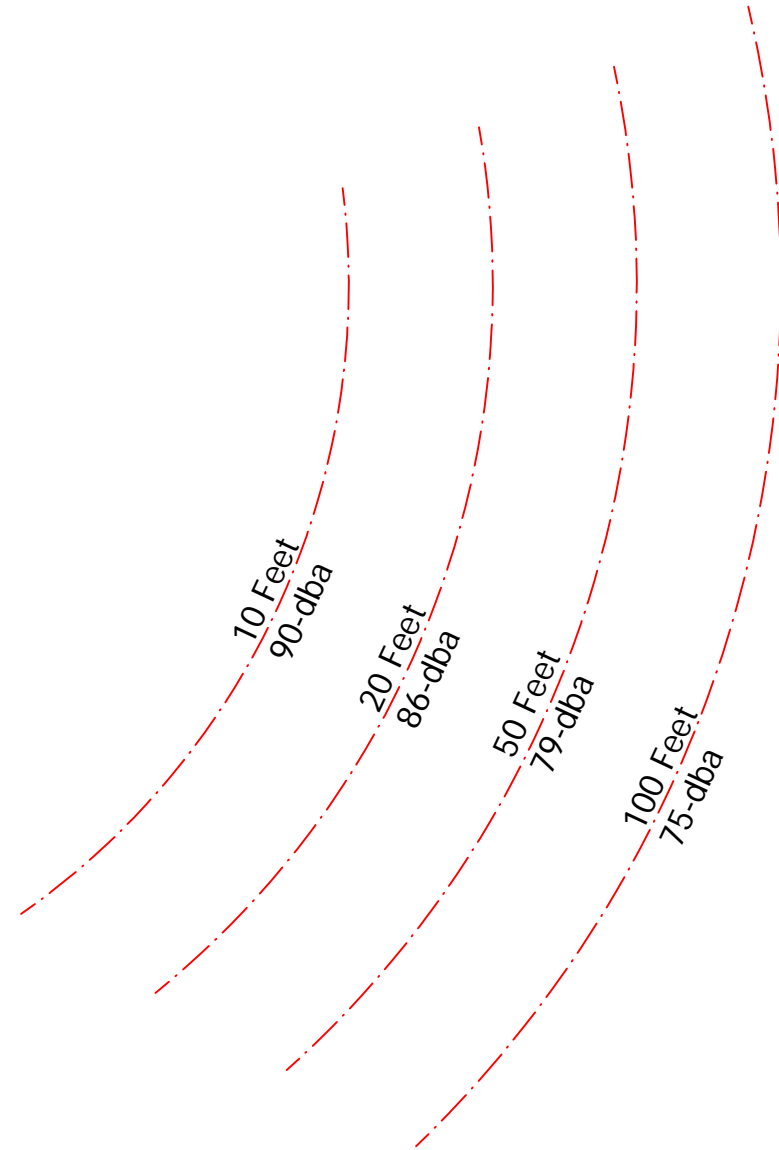
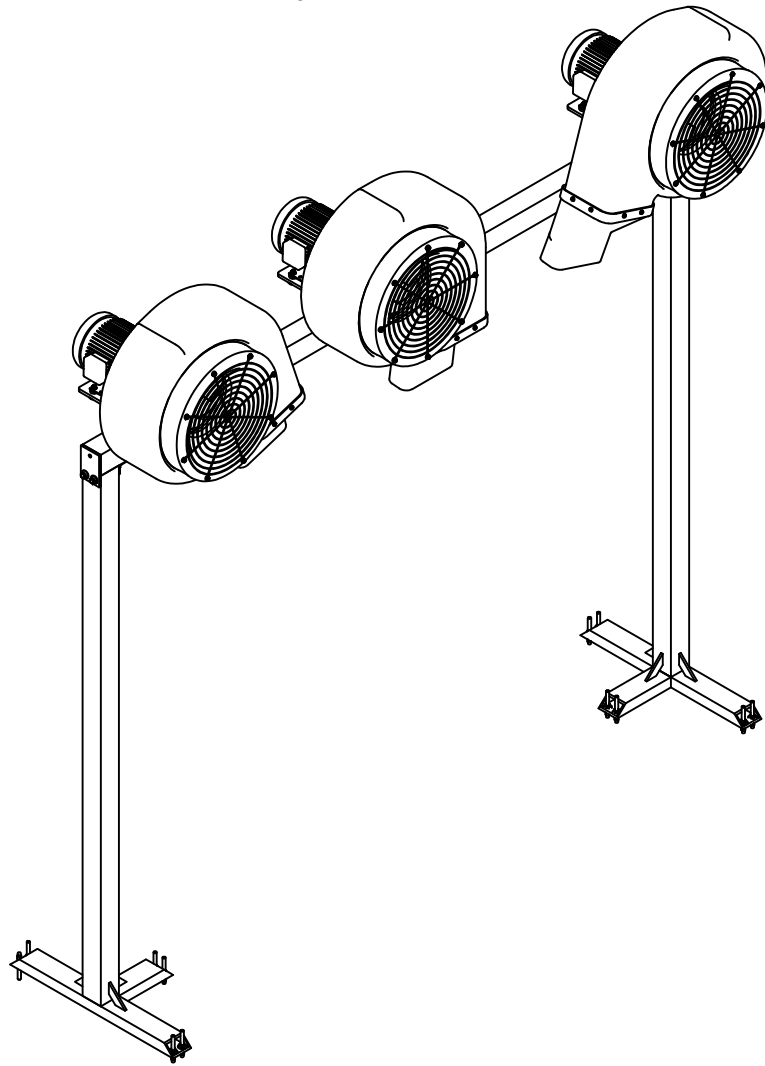
# Attachment 2

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Blower Assembly



Enviromental Noise with Dryer OFF: 70 dba



**MACHINING  
TOLERANCES**  
FRACTION ± 1/16"  
.XX DECIMAL ± 0.030  
.XXX DECIMAL ± 0.005  
ANGULARITY ± 2°  
FINISH 125

DRAWN  
LVerdecia

8/26/2011

APPROVED

8/1/2012

CATEGORY  
**BLOWER**  
THIS SHEET CONTAINS CONFIDENTIAL INFORMATION,  
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**SONNY'S ENTERPRISES**  
THE CARWASH FACTORY

DESCRIPTION  
BLOWER ASSEMBLY, ONE ARCH 45HP

PART NUMBER  
BL1-45HP-1

SHEET  
2 OF 2

SIZE  
A

SCALE  
N.T.S.

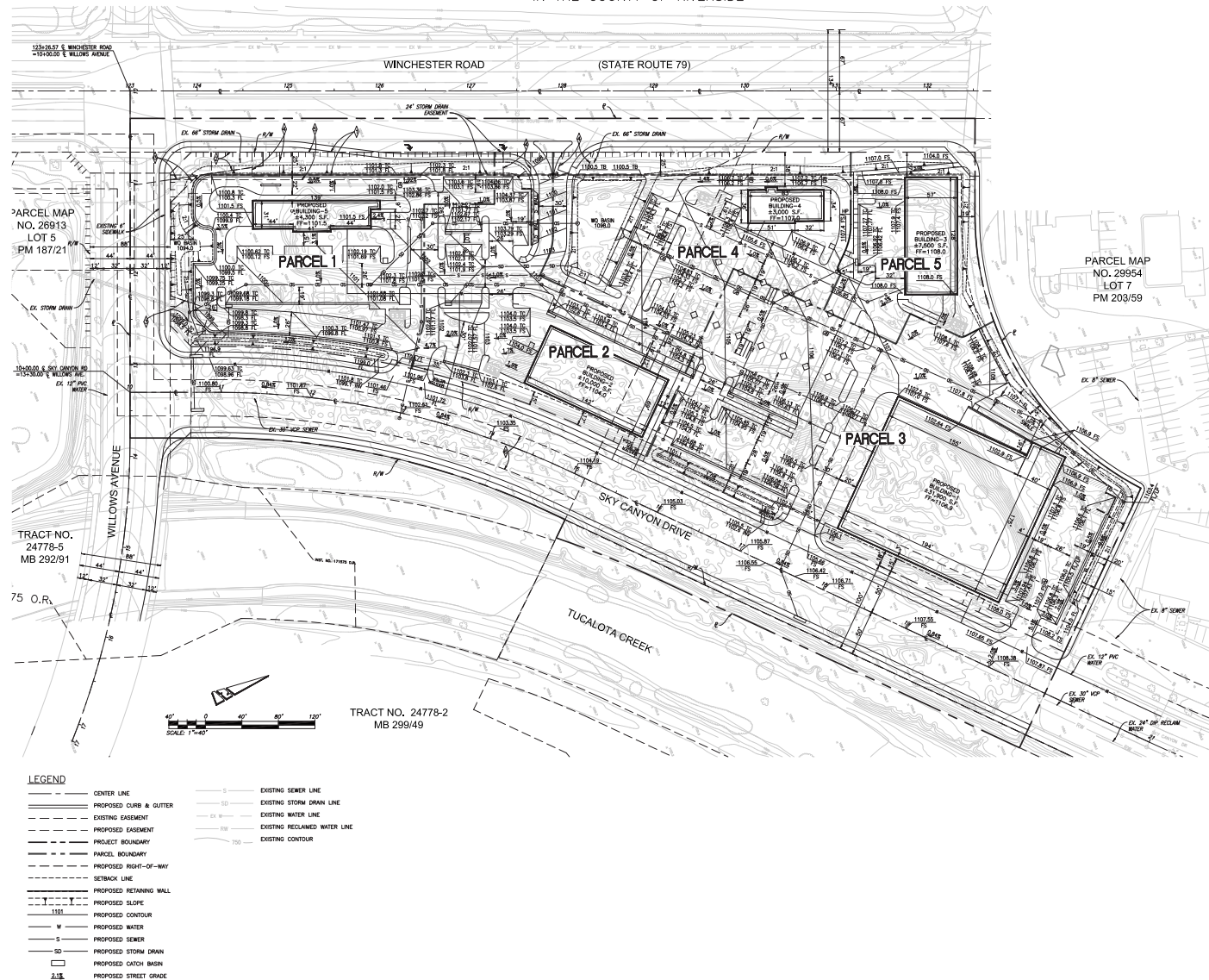
MATERIAL

# Attachment 3

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Figures

**PLOT PLAN NO. 37398**  
IN THE COUNTY OF RIVERSIDE



Source: Proactive Engineering Consultants West, 2018



