

Sycamore Hills Distribution Center Project

Draft Environmental Impact Report (DEIR)

Appendix D – Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Report; Determination of Biologically Equivalent or Superior Preservation (DBESP) Report; Jurisdictional Delineation Report; 2020 Least Bell's Vireo, Southwestern Willow Flycatcher, and Yellow-Billed Cuckoo Survey Results; and Burrowing Owl Focused Survey Report



**Biological Resources and Western Riverside County Multiple Species
Habitat Conservation Plan Consistency Report**

**Sycamore Hills Distribution Center Project
Riverside County, California**



18 December 2020

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1.0 INTRODUCTION

1.1 Purpose

Wood Environment and Infrastructure Solutions, Inc. (Wood) was contracted by Ruth Villalobos & Associates to conduct an updated biological resources and habitat assessment, including a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) consistency analysis. The purpose of this assessment and analysis is to support a proposed warehouse project in the City of Riverside, Riverside County, California (Figures 1 and 2) for compliance with the MSHCP and other environmental regulations.

1.2 MSHCP Background

The MSHCP is a comprehensive, multi-jurisdictional effort that includes western Riverside County, the cities within it, and seven public agencies. Rather than address sensitive species on an individual basis, the purpose of the MSHCP is to focus on the collective conservation of 146 species known to occur in the coverage area. Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits on a case-by-case basis from the USFWS and/or the CDFW.

In western Riverside County many federal and state listed or sensitive species and habitats are now considered “covered species” under the MSHCP. In most instances the MSHCP requires no further surveys for covered species; however, under certain circumstances or in certain areas additional surveys for 38 of these species are required. This plan also satisfies requirements of the Natural Communities Conservation Plan (NCCP) legislation. The MSHCP does not address Section 404 of the Clean Water Act nor the Streambed Alteration Agreement provisions of the California Fish and Game Code, (Section 1600). Projects that currently require a Section 404 permit or Streambed Alteration Agreement will continue to do so notwithstanding the MSHCP. Additionally, the MSHCP does not provide a means of compliance with the federal Migratory Bird Treaty Act (MBTA) or state codes protecting native birds.

1.3 Stephens' Kangaroo Rat Habitat Conservation Plan Background

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP) allows for "take" of Stephens' Kangaroo Rat as part of development activity. "Take" is defined by the Endangered Species Act as any attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. As individual projects are proposed and approved in the SKRHCP fee area, public and private land developers are required to pay a mitigation fee for land that is developed and removes habitat of SKR.

2.0 PROJECT LOCATION AND SITE DESCRIPTION

The proposed project site includes Assessor's Parcel Numbers: 263-060-022, 263-060-024, and 263-060-026 on 48.64 gross acres (per title report). The project occurs within the MSHCP area. The project area is bounded by Barton Street (west), Sycamore Canyon Wilderness Park (north), Alessandro Boulevard and self-storage development (south), and vacant property (east). The study area is currently undeveloped with no existing structures. Surrounding land uses include preserved open space to the north as part of Sycamore Canyon Wilderness Park, Metropolitan Water District's water treatment plant to the west across Barton Street; single-family residential and commercial to the south, across Alessandro Boulevard; a storage facility to the southwest; and undeveloped land to the east.

The project site is located in Section 9 of Township 3 South, Range 4 West, as shown on the United States Geological Survey (USGS) 7.5 minute *Riverside East, Ca.* quadrangle (Figure 3). The elevation of the gently rolling project site ranges between 1,574 and 1,610 feet above sea



level. Several drainages and small rock outcrops occur within the site. The geographic coordinates near the middle of the site are 33.91916° North latitude and -117.30918° West longitude.

The property is spread in an east to west direction with natural rolling land descending gradually from a west to east direction. There are two jurisdictional drainages on the site. The undeveloped parcels are covered with a low to moderate growth of vegetation cover consisting of natural grasses and weeds with some granitic rock outcrops.

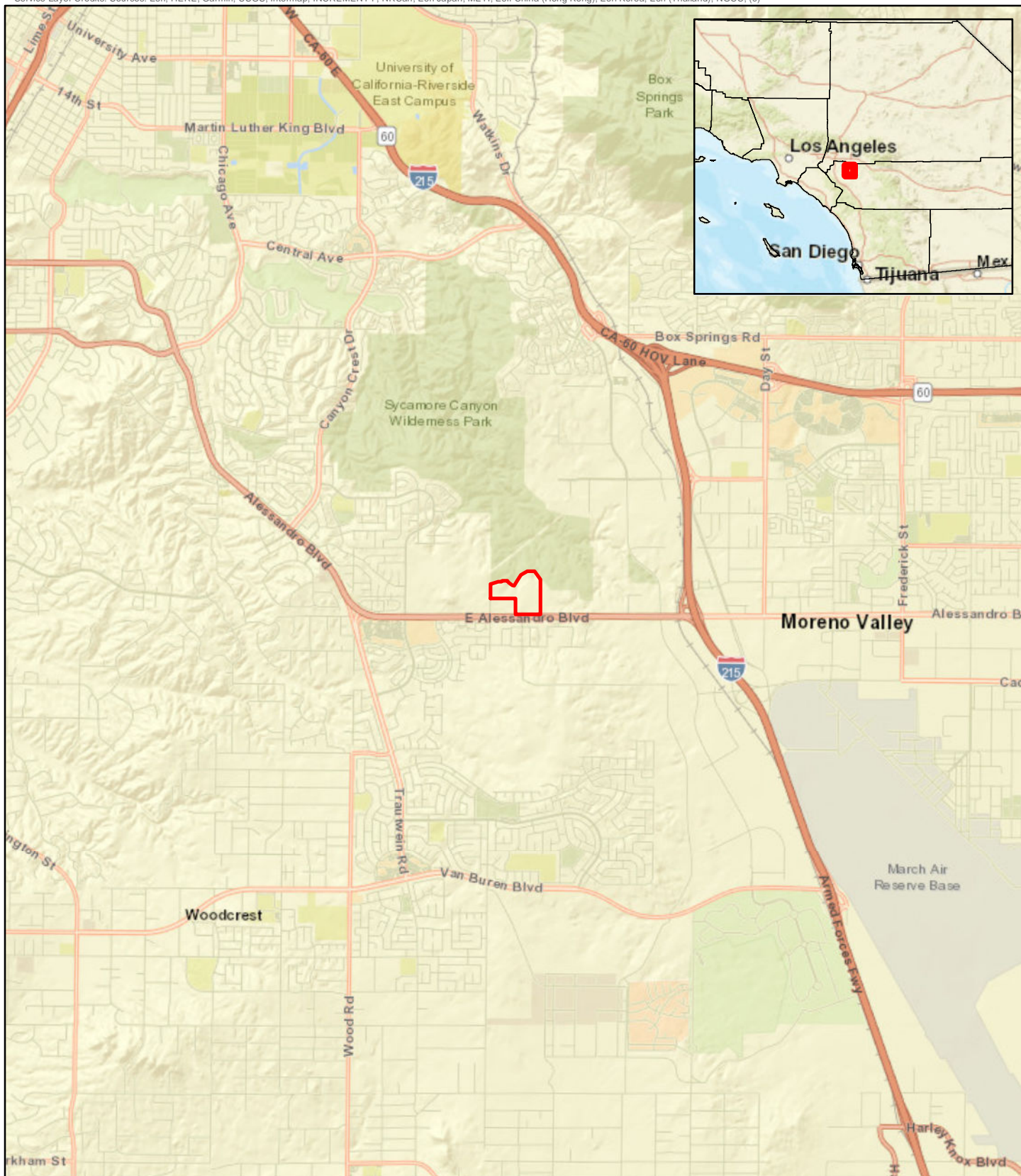
The project site contains an existing area of approximately 11.6 acres legally designated as “Restricted Property”, see Figure 2. The Restricted Property area supports a jurisdictional drainage and associated riparian habitat and was required as a condition of the Clean Water Act Section 404 permit from the US Army Corps of Engineers for construction of the Grove Community Church at an offsite location, approximately one mile southwest.

Project Description

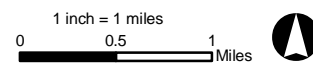
The project proposes subdividing the site into two numbered parcels (Parcels 1 and 2), and three lettered parcels (Parcels A, B, and C). Each parcel is proposed to be developed with a high cube transload short-term warehouse building (Buildings A and B). Building A, a 400,000 square foot warehouse, will be constructed on Parcel 1. Building B, a 203,100 square foot warehouse, will be constructed on Parcel 2. Associated improvements include parking, fire lanes, fencing and walls (including retaining walls), landscaping, and water quality treatment areas.

Parcels A and Parcel B consist of existing Restricted Property of natural land, with a supporting jurisdictional feature, totaling approximately 11.6 acres. A 0.67-acre driveway will be constructed through the Restricted Property to provide street access from Alessandro Boulevard to Parcel 1, which would reduce the Restricted Property to 10.93 acres. However, 1.44 acres will be added to Parcel A to mitigate this loss., resulting in a total of 12.37 acres of Restricted Property (net gain of 0.77 acres). A Conservation Easement is proposed to be placed over the amended 12.37 acres of Restricted Property.

A trailhead parking lot is proposed on Parcel C, totaling 1.18 acres, for access to the Sycamore Canyon Wilderness Park. Improvements include a parking lot, sidewalk, shade structure, bike rack, drinking fountain, fencing, and a Fire Department and access gate. Parcel C will be dedicated to the City.



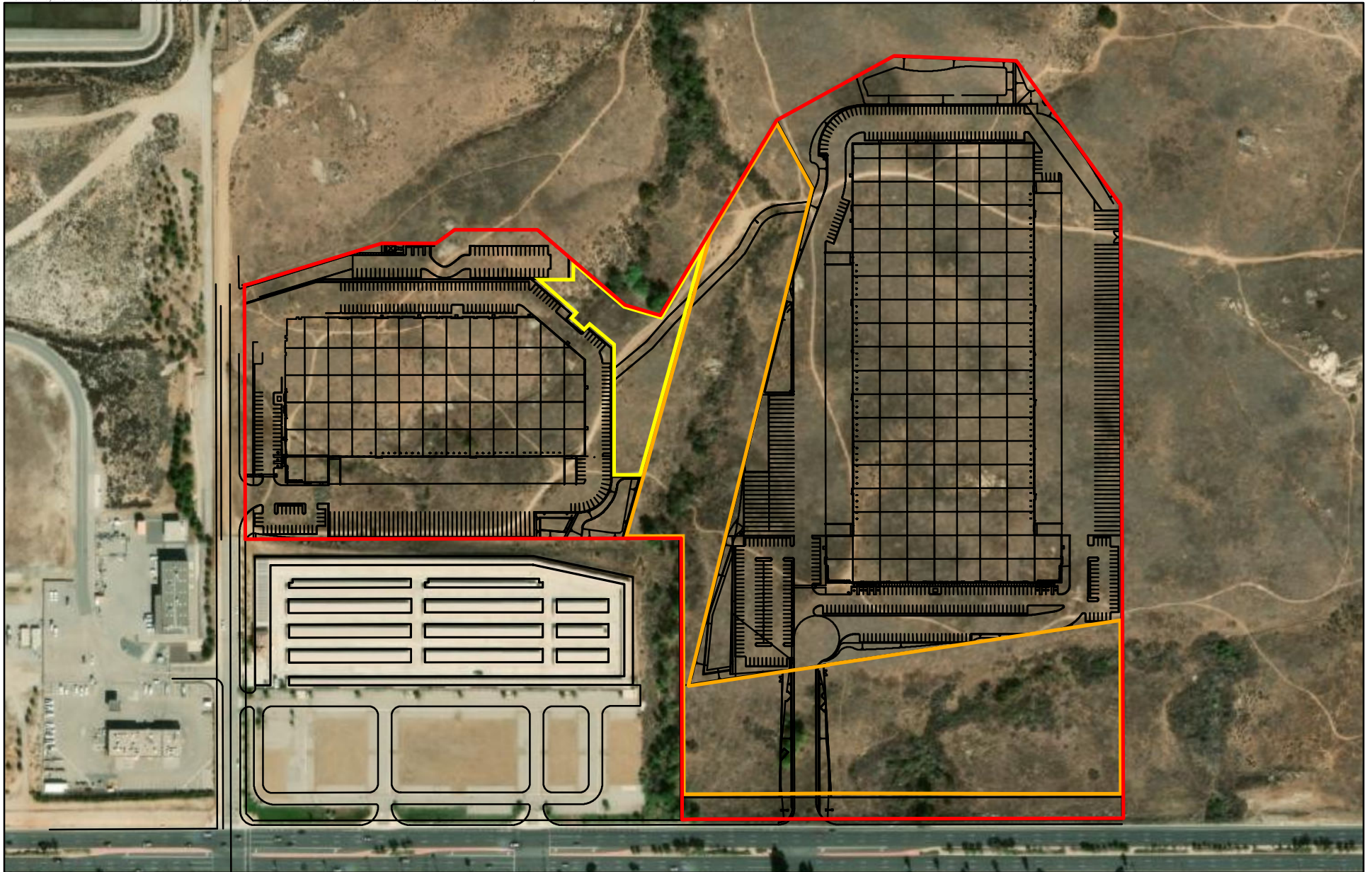
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wood.

 Project Location

FIGURE 1
Regional Map
Sycamore Hills Distribution Center
Riverside, CA



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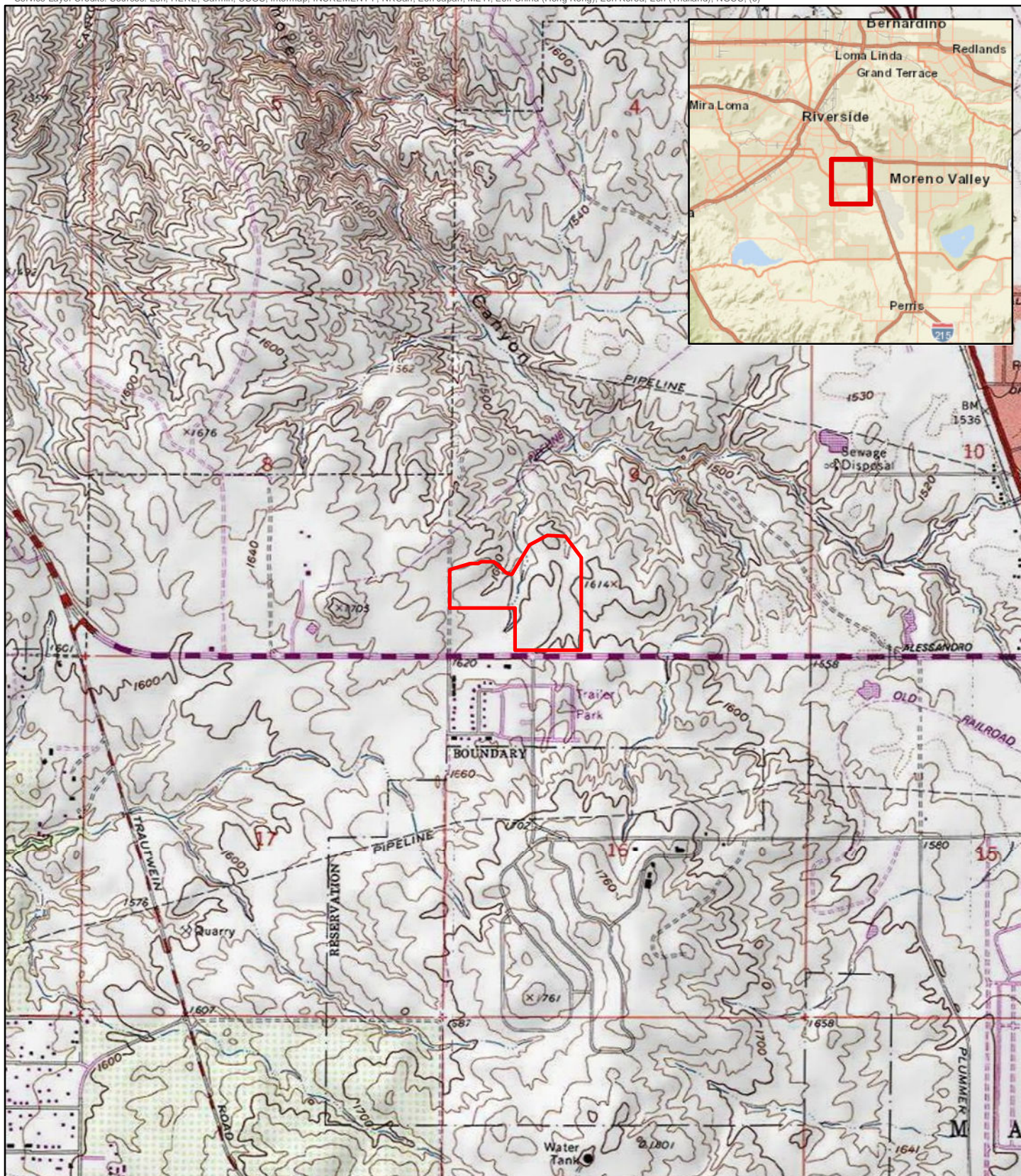
- Project Boundary
- Project Details
- Additional Restricted Boundary
- Existing Restricted Boundary

1 inch = 300 feet
0 150 300 Feet



FIGURE 2

Project Location
Sycamore Hills Distribution Center
Riverside, CA



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1 inch = 2,000 feet
0 1,000 2,000 Feet



wood.

Project Location

FIGURE 3
USGS Topographic Map
Sycamore Hills Distribution Center
Riverside, CA

3.0 METHODS

The biological study area (BSA) consisted of the project site. No off-site staging is required. Development of the Project will be limited to the Project parcels, with the exception of off-site utility and roadway improvements in the existing improved Alessandro Boulevard and Barton Street roadways, directly to the south and west. This section provides brief descriptions of the methods utilized to produce this report and guide the field visit.

3.1 Literature Review

Prior to the field visit a literature review was conducted of the environmental and regulatory setting for the BSA. The literature review provides a baseline from which to evaluate the biological resources potentially occurring within the BSA, and within the local and regional vicinity (a two-mile radius). These references included:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDDB) (CDFW 2019a) for known records of special-status elements in the project area. The CNDDDB has collected records of special-status elements (plants, animals, natural communities) from museum specimens and other sources dating back for over 100 years and biologists' reports up to and including today.
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2019). The CNPS tracks localities and status of plant species of conservation concern. Their database overlaps the CNDDDB, but also includes additional records and species not tracked by the CNDDDB.
- Soil Survey data (USDA 2019) which includes mapping of all soil types in western Riverside County. This data is important because some specific soil types are associated with certain special-status species.
- MSHCP (Western Riverside County Regional Conservation Authority [WRCRCA] 2019a and 2019b), providing information on how the project will affect the plan and vice versa.
- USGS 7.5 minute *Riverside East, Ca.* topographic quadrangle
- Pertinent documents from the Wood library and project files, including records of Wood visits to the project site dating back to January 2014 (Wood was named Amec, then Amec Foster Wheeler during that time period). A complete list of literature and references is included in Section 7.

3.2 Biological Resources and Habitat Assessment (Field Investigation)

A 2019 review visit of the BSA was made on November 19, 2019, by Wood senior biologist John F. Green from 8:30 a.m. to 11:00 a.m. The entire project site was walked and/or surveyed by binocular for an overview of current conditions following a normal rainfall year in 2019. This was a field reconnaissance survey, not a focused survey, but the literature review and multiple past visits to the site informed Green of species and habitats to consider. All flora and fauna detected (e.g., through direct observation, vocalizations, presence of scat, tracks, and/or bones) on the project site during the course of the survey were recorded in field notes and are included in Appendices A & B. Plant species of uncertain identity were collected and identified by Andrew Sanders of the University of California, Riverside Herbarium. Multiple photographs were taken for reference during the preparation of this report. A representative sample of project feature photographs is included in Appendix C.



3.3 Jurisdictional Waters and Wetlands, Including MSHCP Riverine/Riparian Areas

Wood waters and wetlands specialist Dale Hameister visited the site on November 14, 2019, to update the previously prepared 2018 jurisdictional delineation report. Both the original report and this update were prepared according to current guidelines provided by the U.S. Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB). Details are provided in the full report, attached here as Appendix D.

4.0 RESULTS

The literature review and field surveys revealed the following information:

4.1 Soils

The study area crosses seven different mapped soil types (Figure 4) as follows:

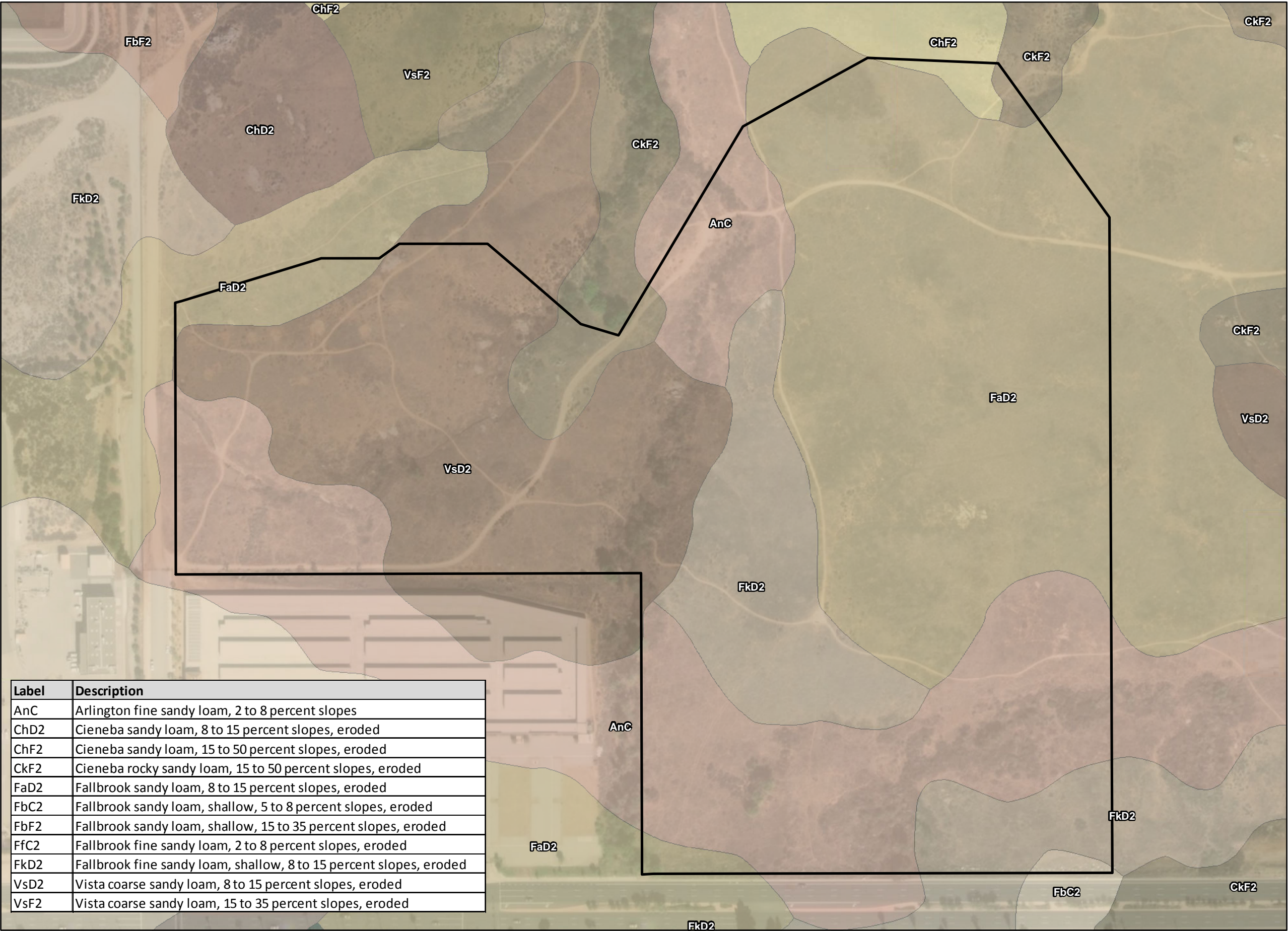
- Arlington fine sandy loam (AnC) – This well-drained soil occurs on alluvial fans and terraces with 2 to 8 percent slopes. It is composed of fine sandy loam and the parent material is composed of alluvium dominantly from granitic rocks.
- Cieneba sandy loam, eroded (ChF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of sandy loam on the surface and the parent material is composed of coarse-grained igneous rock.
- Cieneba rocky sandy loam, eroded (CkF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of rocky sandy loam on the surface and the parent material is composed of coarse-grained igneous rock.
- Fallbrook sandy loam, eroded (FaD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook sandy loam, shallow, eroded (FbC2) – This well-drained soil occurs on uplands with 5 to 8 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook fine sandy loam, shallow, eroded (FkD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of fine sandy loam and developed on granodiorite and tonalite.
- Vista coarse sandy loam, eroded (VsD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of coarse sandy loam and developed on weathered granite and granodiorite.

None of these common soil types are specifically associated with special-status species.

4.2 Jurisdictional Waters and Wetlands, Including MSHCP Riverine/Riparian Areas

Wood waters and wetlands specialist Dale Hameister prepared an updated jurisdictional delineation (Appendix D). A Jurisdictional Delineation was conducted to determine if drainages in the BSA qualify as Waters of the United States (WUS) (“WUS” on Figure 5), waters of the state (CDFW on Figure), and MSHCP riverine/riparian areas (both WUS and CDFW on Figure 5).





Label	Description
AnC	Arlington fine sandy loam, 2 to 8 percent slopes
ChD2	Cieneba sandy loam, 8 to 15 percent slopes, eroded
ChF2	Cieneba sandy loam, 15 to 50 percent slopes, eroded
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
FaD2	Fallbrook sandy loam, 8 to 15 percent slopes, eroded
FbC2	Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
FbF2	Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded
FfC2	Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded
FkD2	Fallbrook fine sandy loam, shallow, 8 to 15 percent slopes, eroded
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded
VsF2	Vista coarse sandy loam, 15 to 35 percent slopes, eroded

 Project Boundary

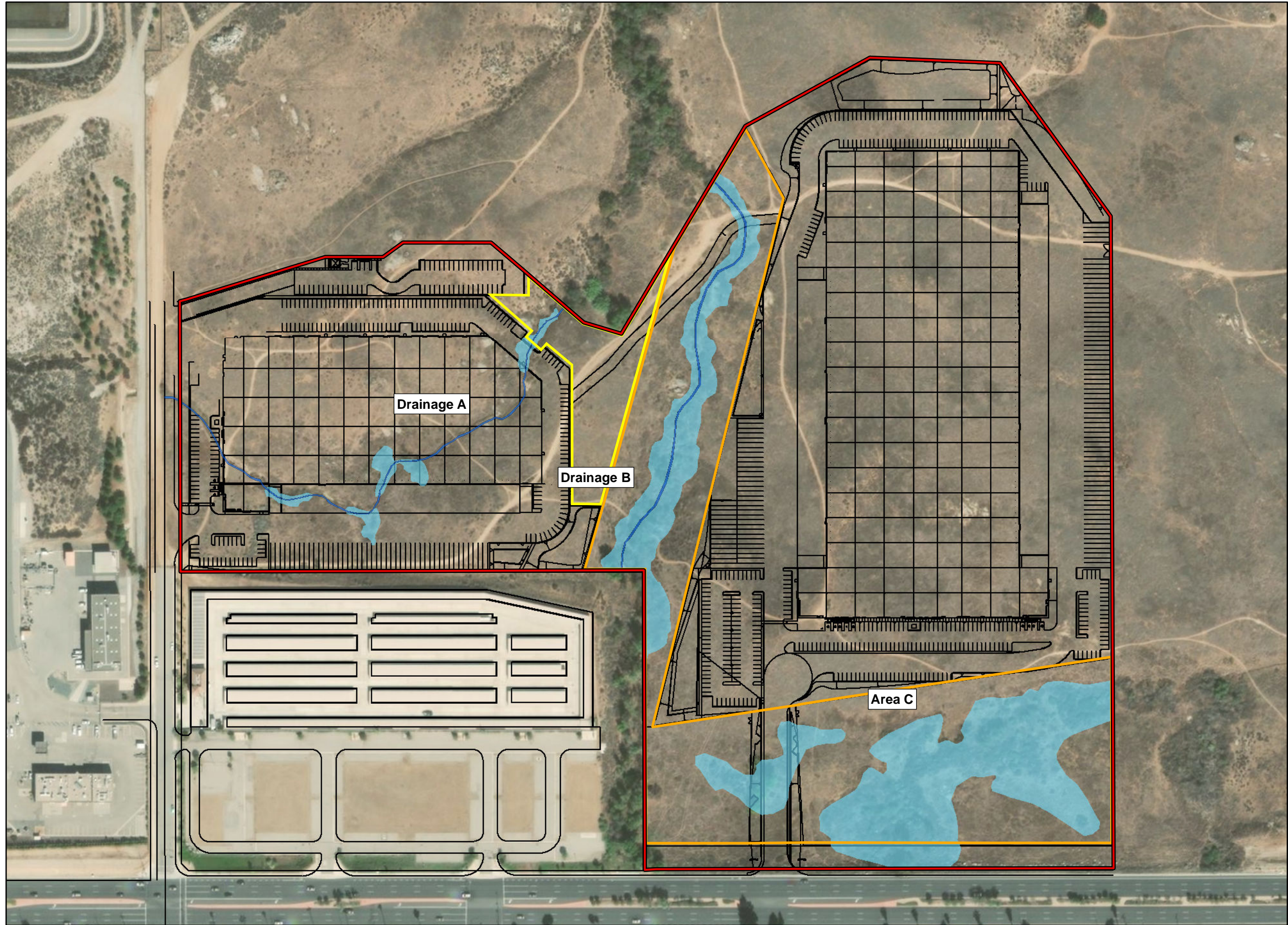


1 inch = 200 feet
0 200 Feet

FIGURE 4
Soils
Sycamore Hills Distribution Center
Riverside, CA



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Project Boundary
 - Project Details
 - Additional Restricted Boundary
 - Existing Restricted Boundary
- Jurisdictional Areas**
- CDFW
 - WUS

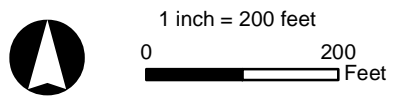


FIGURE 5
 Drainages
 Sycamore Hills Distribution Center
 Riverside, CA



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar
 Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the
 GIS User Community

4.3 Vegetation

The BSA includes the following vegetation categories or types: non-native grassland, riparian woodland, Riversidean sage scrub, and disturbed. The study area is covered with Non-Native Grassland crossed by several drainages, some of which contain Riparian Woodland. Patches of sparse Riversidean Sage Scrub are present in the uplands. Several unpaved trails, which fall in the disturbed category, cross the uplands and drainages within the study area. These four categories are shown on Figure 6. Appendix A lists all vascular plant species observed by Wood to date within the study area.

The site is not within a Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA), so no plant surveys are required at the project site for compliance with the MSHCP. For this reason, no focused plant survey has been conducted on the proposed project site, but one special status plant species, paniculate tarplant (*Deinandra paniculata*), has been noted incidentally during site visits. Individuals of tarplant (*Deinandra paniculata*) have been seen scattered throughout the non-native grassland areas (Figure 6) of the BSA, especially in years with ample rainfall. Paniculate tarplant, which is not covered by the MSHCP, is an annual which has a CNPS California Rare Plant Rank (CRPR) of 4.2. Paniculate tarplant is not state or federally listed as threatened or endangered, and List 4 plants have the lowest sensitivity ranking in the CNPS system as “Plants of Limited Distribution - a Watch List”. Paniculate tarplant primarily blooms from April through November, but has been recorded blooming in March and December at some locations.

Non-native Grassland

Non-native grassland (40.71 acres in the BSA, see Figure 6) supports a dense to sparse cover of annual grasses. Dominant species include non-native species such as wild oats (*Avena* spp.), red brome (*Bromus madritensis* ssp. *rubens*), and non-native forbs such as short-pod mustard (*Hirschfeldia incana*) and filaree (*Erodium* spp.). A variety of native forbs are associated with this habitat, but their presence is episodic and rainfall dependent. Plants will generally be dead through the summer to fall dry season, with germination beginning with the fall to winter rains and growth and seed-set through the spring.

Riparian Woodland

The riparian woodland (5.12 acres in the BSA, see Figure 6) is dominated by trees and shrubs such as willows (*Salix* sp.) and cottonwood (*Populus fremontii*) for the over-story species, and mulefat (*Baccharis salicifolia*) for understory. The understory is relatively sparse, lacking a well-developed mid-story canopy with herbaceous plant species more common than shrubs. The vegetation in this community has suffered from drought and homeless occupation, with some trees and shrubs dead or dying. None of the plant species mentioned here are special-status, but riparian communities provide potential habitat for special-status species.

Riversidean Sage Scrub

Riversidean Sage Scrub (1.68 acres in the BSA, see Figure 6) is dominated by low-statured, aromatic, drought-deciduous shrubs, and subshrub species. Characteristic species present in the BSA include brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), and California sagebrush (*Artemisia californica*). None of the plant species mentioned here are special-status, but Riversidean Sage Scrub provides potential habitat for special-status species.

Disturbed

Several open, cleared dirt trails crisscross the study area, comprising 0.76 acre in the BSA (Figure 6). The trails are not vegetated and are used by both humans and animals.



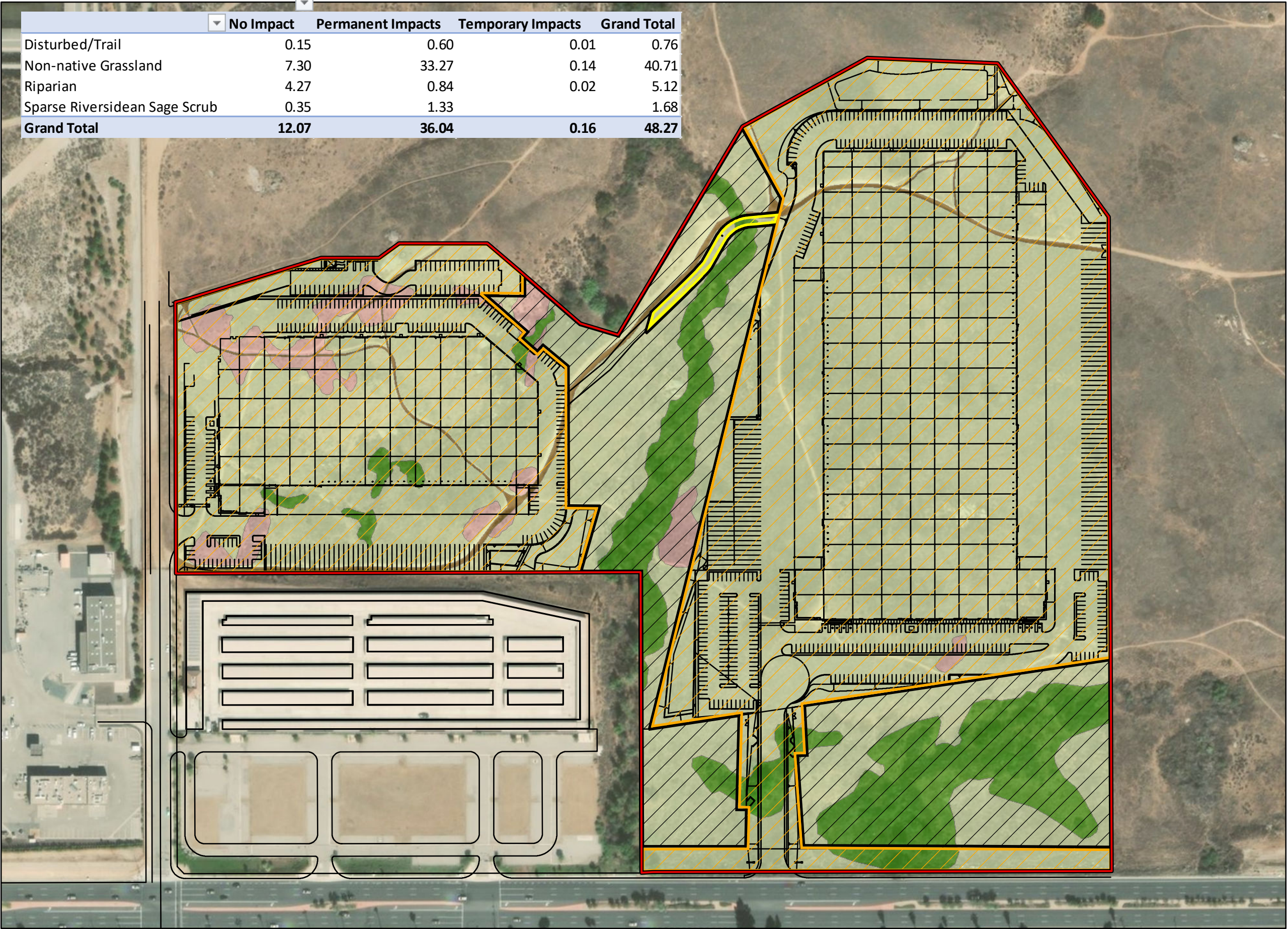
CNDDDB records of additional special status vegetation communities and plant species recorded in the past within two miles of the project site are shown on Figure 7. These include:

- *Centromadia pungens* ssp. *laevis*, smooth tarplant (MSHCP, CNPS 1B.1). This species has a designated survey area in the MSHCP, and the project is not within that survey area.
- *Chorizanthe parryi* var. *parryi*, Parry's spineflower (MSHCP, CNPS 1B.1). Habitat present in the BSA.
- *Lepidium virginicum* var. *robinsonii*, Robinson's pepper-grass (CNPS 4.3, not covered by MSHCP). Habitat present in the BSA.
- Southern Sycamore Alder Riparian Woodland. This is not a species, but a CDFW recognized special-status vegetation community that does not occur in the BSA.

For an MSHCP-covered project, potential impacts to smooth tarplant and Parry's spineflower are covered with no further action necessary. Southern Sycamore Alder Woodland is not present, so is of no further concern. Like paniculate tarplant, Robinson's pepper-grass is not covered by the MSHCP, and it is an annual which has a CNPS CRPR of 4.3. Robinson's pepper-grass is not state or federally listed as threatened or endangered, and CNPS List 4 plants have the lowest sensitivity ranking in the CNPS system as "Plants of Limited Distribution - a Watch List". It is not known to occur on site, but it has not been surveyed for. If any mitigation is determined to be necessary for paniculate tarplant, it could be applied to Robinson's pepper-grass as well.



	No Impact	Permanent Impacts	Temporary Impacts	Grand Total
Disturbed/Trail	0.15	0.60	0.01	0.76
Non-native Grassland	7.30	33.27	0.14	40.71
Riparian	4.27	0.84	0.02	5.12
Sparse Riversidean Sage Scrub	0.35	1.33		1.68
Grand Total	12.07	36.04	0.16	48.27



- Project Boundary
- Project Details
- No Impact (13.32 acres)
- Permanent Impact (34.79 acres)
- Temporary Impact (0.16 acres)
- Vegetation Community**
- Disturbed (0.76 acres)
- Non-native Grassland (40.71 acres)
- Riparian (5.12 acres)
- Riversidean Sage Scrub (1.68 acres)

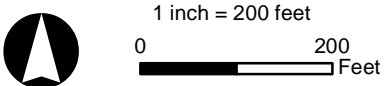


FIGURE 6
Vegetation Communities
Sycamore Hills Distribution Center
Riverside, CA



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar
Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the
GIS User Community

4.4 Habitat Conservation Plans

The entire project lies within the MSHCP boundaries and is within the “Cities of Riverside and Norco” Area Plan. It is also within the SKRHCP.

MSHCP

Conservation and Reserve Assembly

The project site is not in a criteria area for the MSHCP (not within a Criteria Cell, Cell Group, habitat core or linkage), therefore the project is not required for conservation and it will have no effect on reserve assembly. It is immediately adjacent to the Sycamore Canyon Wilderness Park to the north, which is designated as Public Quasi Public (PQP) lands and Existing Core D of the MSHCP conservation area (Figure 8). Where adjacent to Sycamore Canyon Wilderness Park, the project is at the MSHCP defined urban/wildlands interface. As such, the project is required to comply with the Guidelines Pertaining to the Urban/Wildlands Interface of the MSHCP (Section 6.1.4) and is discussed further in section 6.2 of this report.

Species Associated with Riparian Riverine Areas and Vernal Pools (Section 6.1.2)

The areas mapped as WUS and CDFW on Figure 5 are MSHCP riverine/riparian. The implications of this are discussed below. Drainages are considered riverine/riparian if they support habitat for species that are not adequately conserved, such as least Bell’s vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) which are discussed below. Riverine/riparian also includes drainages within MSHCP conservation areas or which might have downstream effects on the MSHCP conservation area.

The habitat assessment for the project determined that habitat was present for the least Bell’s vireo and southwestern willow flycatcher (*Empidonax traillii extimus*) within the riparian woodland vegetation, therefore, the MSHCP requires focused surveys for them pursuant to the MSHCP Section 6.1.2, *Protection of Species Associated with Riparian/ Riverine Areas and Vernal Pools*. Focused surveys in accordance with USFWS protocols were conducted for the least Bell’s vireo and southwestern willow flycatcher in 2014, with positive results for the vireo and negative results for the flycatcher (see Amec 2014, attached as Appendix E). The least Bell’s vireo protocol requires eight surveys to be conducted at least 10 days apart between April 10 and July 31st. The southwestern willow flycatcher protocol requires five surveys, and that first survey be performed from May 15 to 31, the next two surveys from June 1 to 24, and the final two surveys between June 25 and July 17, with each survey at least five days apart. The surveys were performed concurrently for least Bell’s vireo and southwestern willow flycatcher. Habitat is not present for the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) or other riverine/riparian species that would require surveys.

The project site does not contain habitat for fairy shrimp. Fairy shrimp occur in natural vernal pools and other less natural features such as stock ponds, road ruts, and compacted soils. Vernal pools are 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. 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 the 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 (WRCRCA 2019b). A fairy shrimp habitat assessment is typically done during a single site visit at any time of year. Wood biologists, however, have a long history on this site dating back to 2014, and no sign of ephemeral pooling has ever been noted during ≥ 15 visits in all seasons, further supporting the conclusion that fairy shrimp habitat is not present.

Narrow Endemic Plant Species (Section 6.1.3) and Additional Survey Needs and Procedures (Section 6.3.2)

The project is not within the MSHCP designated Criteria Area Plant Species Survey Area (CAPSSA) or Narrow Endemic Plant Species Survey Area (NEPSSA), or within designated survey areas for amphibians or mammals so no additional assessments or focused surveys are required for any of these MSHCP covered plants and wildlife. The project is within the survey area for burrowing owl

Burrowing Owls

The project site is within the MSHCP designated survey area (Figure 9) for burrowing owl (*Athene cunicularia*). Focused surveys were conducted for the BUOW in 2018 with negative results (Wood 2018a). The focused surveys were conducted according to the MSHCP's protocol following the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* from one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset. Surveys were conducted by walking straight line transects spaced no more than 20 meters apart throughout all suitable areas of the site. Burrows suitable for BUOW occupation were closely monitored and inspected during each visit for evidence of BUOW use (i.e., whitewash, pellets, feathers and other adornments). Binoculars were used to identify birds and to survey perches and potential burrows prior to closer approach. A handheld GPS unit was used to mark potential BUOW burrows. A handheld anemometer (Kestrel model #2000) was used to record temperatures and wind speeds.

No BUOWs or BUOW sign (i.e., whitewash, pellets, feathers, tracks or burrow adornments) were observed or otherwise detected during the course of the 2018 focused surveys. Although no individual BUOW or BUOW sign was observed during the surveys, potentially suitable BUOW burrows were observed within the study area and 150 meter buffer. The nearest known occurrences of burrowing owls (BUOW) are approximately one mile south of the BSA in a Stephens' kangaroo rat preserve (CDFW 2019a). Focused surveys of potential burrows will be required during the breeding season of March 1 – August 31 to determine if burrowing owls are present now.



SKR HCP

Sycamore Canyon Wilderness Park is designated as part of the Sycamore Canyon-March Air Force Base Core Reserve of the SKRHCP, but the project is not within this reserve. Payment of the fee associated with the SKRHCP will cover all potential impacts to Stephens' kangaroo rat.



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wood.

-  Project Boundary
-  Public/Quasi-Public Conserved Lands

1 inch = 500 feet
0 250 500 Feet



FIGURE 7
Western Riverside County MSHCP
Conservation Lands
Sycamore Hills Distribution Center
Riverside, CA



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wood.

- Project Boundary
- MSHCP Burrowing Owl Survey Area

1 inch = 500 feet
0 250 500 Feet



FIGURE 8
Western Riverside County MSHCP
Survey Areas
Sycamore Hills Distribution Center
Riverside, CA

4.5 Fauna

Appendix B lists all wildlife species detected by Wood to date within the BSA. Common wildlife species detected during biological resource assessments include common side-blotched lizard (*Uta stansburiana*), Nuttall's woodpecker (*Picoides nuttallii*), bushtit (*Psaltirparus minimus*), Anna's hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), and desert cottontail (*Sylvilagus audubonii*). All native birds are protected by the federal MBTA and state Fish and Game Code.

Wood has also encountered the following special status wildlife species during surveys in the BSA:

2019

- *Circus hudsonius*, northern harrier (MSHCP, SSC)
- *Accipiter cooperii*, Cooper's hawk (MSHCP; WL)
- *Lepus californicus bennettii*, San Diego black-tailed jackrabbit (MSHCP; SSC)
- *Dipodomys stephensi*, Stephens' kangaroo rat (observed burrows & sign; MSHCP; FE; ST)
- *Neotoma* sp., wood rat middens* (MSHCP; SSC)

2014-2018

- *Crotalus ruber*, red-diamond rattlesnake (MSHCP; SSC; S)
- *Selasphorus rufus/sasin*, rufous/Allen's hummingbird (rufous is a BCC). During the migratory period when rufous and Allen's occur together, most individuals cannot be identified to species level.
- *Phalacrocorax auritus*, double-crested cormorant (MSHCP; WL)
- *Empidonax traillii*, willow flycatcher (MSHCP; SE; BCC)
- *Vireo bellii pusillus*, least Bell's vireo (MSHCP; FE, SE)
- *Eremophila alpestris actia*, California horned lark (MSHCP; WL)
- *Spinus lawrencei*, Lawrence's goldfinch (BCC)
- *Setophaga petechia brewsteri*, yellow warbler (MSHCP; BCC; SSC)
- *Aimophila ruficeps canescens*, southern California rufous-crowned sparrow (MSHCP; WL)

FE - Federally Endangered; BCC – United States Fish and Wildlife Service Birds of Conservation Concern; SE – California State Endangered, ST – California State Threatened, WL - CDFW Watch List, SSC - CDFW Species of Special Concern; S- USFS Sensitive.

*The MSHCP / SSC San Diego desert woodrat *Neotoma lepida* ssp. *intermedia* is the expected species within the study area.

All of the avian, reptile and mammals species above could be found foraging and/or breeding in the non-native grassland community and the associated riparian habitat with the exception of a double-crested cormorant (flyover only). Rufous hummingbird may forage, but only in migration; they do not breed in southern California. The willow flycatchers detected in the BSA were migrants present for foraging only, likely of more northerly subspecies which do not nest in southern California (*E.t. adastus* or *E.t. brewsteri*), and not southwestern willow flycatchers (subspecies *E.t. extimus*). USFWS protocol does not recognize willow flycatchers as the "southwestern" species unless they are found to be nesting or if they stay on-site past the



migratory period. The MSHCP covers most of the aforementioned species, although some, such as the least Bell's vireo, have special requirements. Rufous hummingbird and Lawrence's goldfinch are not covered by the MSHCP but would be protected by migratory bird recommendations below. CNDDDB records of additional special status species recorded in the past within two miles of the project site are shown on Figure 7. These records include many of the species already recorded in the BSA, but also:

- *Aspidoscelis hyperythra*, orange-throated whiptail (MSHCP, WL). Habitat present in the BSA.
- *Agelaius tricolor*, tricolored blackbird (MSHCP, ST, SSC, BCC). No habitat present in the BSA.
- *Chaetodipus fallax fallax*, northwestern San Diego pocket mouse (MSHCP, SSC). Habitat present in the BSA.
- *Spea hammondi*, western spadefoot (MSHCP, SSC). Like fairy shrimp, this species requires temporary pools to breed. No breeding habitat is present.
- *Onychomys torridus ramona*, southern grasshopper mouse (not covered by MSHCP, SSC). Habitat present in the BSA.
- *Lanius ludovicianus*, loggerhead shrike (MSHCP, SSC, BCC). Habitat present in the BSA.
- *Athene cunicularia*, burrowing owl (MSHCP, SSC, BCC). This species has a designated survey area in the MSHCP and the project is within it. 2018 surveys did not detect the species.
- *Dipodomys merriami parvus*, San Bernardino kangaroo rat (MSHCP, FE, state candidate for listing as endangered, SSC). This species has a designated survey area in the MSHCP, and the project is not within that survey area.
- *Phrynosoma blainvillii*, coast horned lizard (MSHCP, SSC). Habitat present in the BSA.
- *Nyctinomops femorosaccus*, pocketed free-tailed bat (SSC, not covered by MSHCP). No roosting habitat in the BSA could forage.
- *Perognathus longimembris brevinasus*, Los Angeles pocket mouse (MSHCP, SSC). This species has a designated survey area in the MSHCP, and the project is not within that survey area.

Least Bell's vireo and Stephens' kangaroo rat are the only federally and state listed threatened and/or endangered species that have been observed in the study area. Stephens' kangaroo rat burrows, scat, sign, and tracks are present throughout the entire grassland areas up to and including 2019. Least Bell's vireos were detected in the BSA during 2014 focused surveys (Amec 2014). The locations for these detections are shown in Appendix E. Wood avian biologists have not been in the BSA in the breeding season for this species since 2014, but the riparian woodland habitat within the project site is still suitable to support least Bell's vireo from the time they begin to arrive in mid-March until their departure by early September. There are also multiple CNDDDB records of least Bell's vireo within the surrounding 2-mile radius of the site (Figure 7). Therefore, the future occurrence of least Bell's vireo, including for nesting, in the BSA is of high potential in the study area. For the purposes of this analysis it is assumed that least Bell's vireos continue to utilize the riparian woodland habitat areas in the BSA for foraging and nesting in the spring and summer.



Although not covered by the MSHCP, the loss of habitat and/or individuals of southern grasshopper mouse or foraging habitat for pocketed free-tailed bat would not be considered significant. These species are not state or federally listed as threatened or endangered, and are of potential occurrence onsite, but not known to occur. The approximately 12 acres onsite that will be preserved and the Sycamore Canyon Wilderness Park immediately to the north would continue to provide ample habitat for these species in the project area, thus the small incremental loss of potential habitat from development of the project would be insignificant.

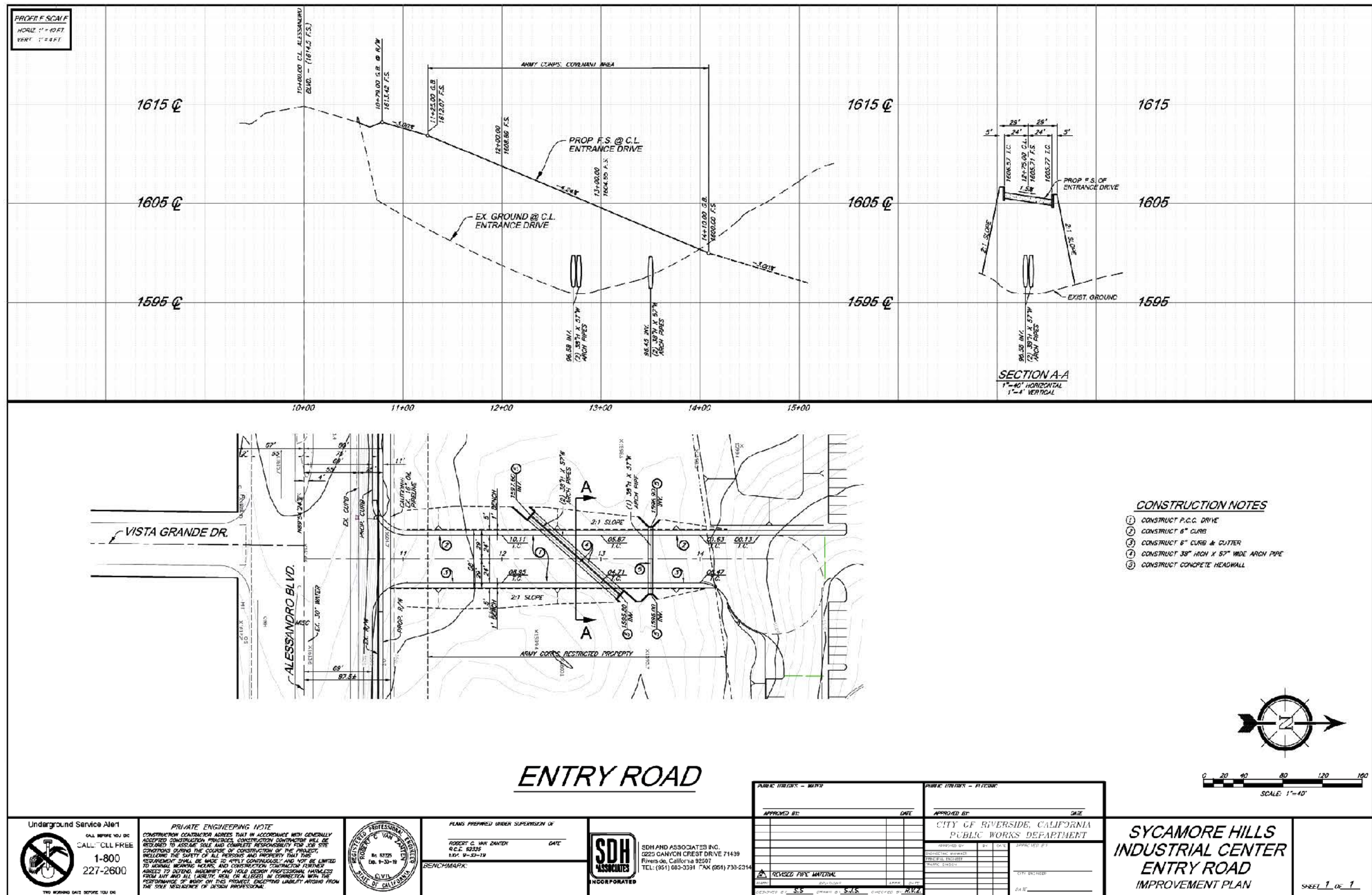
The existing culverts flowing into the BSA provide little or no benefit for wildlife movement as they come out of developed areas. A new elevated driveway is proposed to bisect Area C and will include two separate culvert under-crossings: one that crosses in a southwest to northeast direction with two 38-inch high x 57-inch wide arch pipes and one that crosses in a west to east direction with one 38-inch high x 57-inch wide arch pipe (Figure 10). These culverts were included in the design to provide hydrological connection and allow for wildlife to move across Area C without having to cross over the driveway. Animals likely to use these under-crossings include most terrestrial amphibians, reptiles, and mammals that have been recorded onsite such as Baja California treefrog (*Pseudacris hypochondriaca*), western fence lizard (*Sceloporus occidentalis*), red-diamond rattlesnake (*Crotalus ruber*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*). Wall nesting birds such as black phoebe (*Sayornis nigricans*) and barn swallow (*Hirundo rustica*) may also utilize the culvert.

5.0 TEMPORARY AND PERMANENT IMPACTS TO NATURAL COMMUNITIES

Impacts to natural communities will occur from the replacement of vegetation with the proposed project facilities and associated parking lots. A total of 35.15 acres of habitat would be temporarily and permanently impacted by the proposed Project. Nonnative grassland will suffer the largest impacts with a total of 0.14 acre temporarily and 32.34 acres permanently impacted. Riparian woodland habitat will incur 0.02 acre of temporary impact and lose 0.51 acre to permanent impacts. Riversidean sage scrub will not have temporary impacts but losses will total 1.33 acres. Disturbed areas will lose 0.60 acre with an additional 0.01 acre of temporary impacts. Approximately 8.23 acres of nonnative grassland, 4.59 acres of riparian woodland, 0.35 acre of Riversidean sage scrub and 0.15 acre of disturbed areas within the BSA will not be impacted by project activities but avoided and preserved in place. Vegetation communities and impacts are illustrated in Figure 6.

Table 1 – Vegetation Communities and Impacts

Vegetation Type	Vegetation Acres Before Impacts	Temporary Impacts (acres)	Permanent Impacts (acres)	Total Impacts (acres)	Vegetation Not Impacted (acres)
Non-Native Grassland	40.71	0.14	32.34	32.57	8.23
Riparian Woodland	5.12	0.02	0.51	0.56	4.59
Riversidean Sage Scrub	1.68	0	1.33	1.41	0.35
Disturbed	0.76	0.01	0.60	0.61	0.15
Totals	48.27	0.16	34.79	35.15	13.12

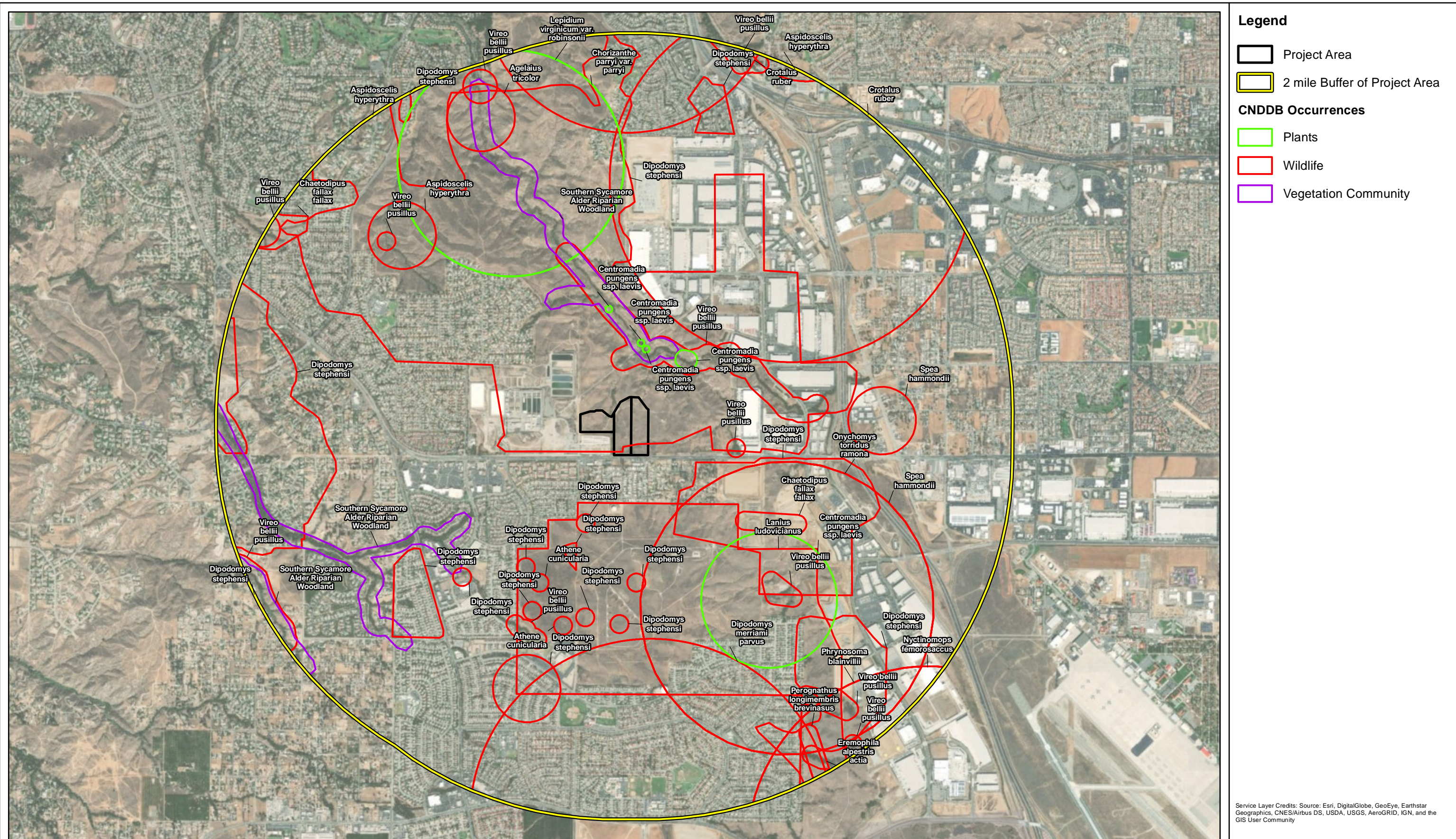


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wood.

FIGURE 9

Entry Road Plan
Sycamore Hills Distribution Center
Riverside, CA



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6.0 RECOMMENDATIONS

To comply with applicable regulations protecting waters, wetlands, migratory birds, and for compliance with the MSHCP and SKRHCP, the following is recommended, including Mitigation Measures BIOLOGY-1 through BIOLOGY-8 as identified below under relevant sections of the MSHCP.

6.1 Jurisdictional Waters and Wetlands, Including MSHCP Riverine/Riparian Areas

Permitting from the USACE, CDFW, and RWQCB will be required for permanent and temporary impacts to WUS and waters of the state (CDFW). As the onsite WUS and waters of the state also meet the definition of riparian and riverine areas in Section 6.1.2 of the MSHCP, a MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) is required as 100% avoidance of onsite riparian/riverine areas cannot be met with the proposed project. Section 6.1.2 of the MSHCP outlines the process and the information required as part of a DBESP. A separate DBESP report has been prepared to demonstrate a DBESP finding for the proposed project. Refer to the DBESP for mitigation to ensure replacement of any lost functions and values of WUS, waters of the state, and riparian/riverine areas.

6.2 Guidelines Pertaining to the Urban/Wildlands Interface (MSHCP Section 6.1.4)

MSHCP Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. The project site is immediately adjacent to lands to the north, which are conserved as Public Quasi-Public (PQP). Development in proximity to the MSHCP Conservation Area may result in “edge effects” that could adversely affect biological resources within the MSHCP Conservation Area. To minimize such edge effects, the following guidelines shall be implemented in conjunction with review of development projects in proximity to the MSHCP Conservation Area:

- **Drainage**

Proposed Developments in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales, or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

A design feature of the proposed project is for the storm water runoff that currently supports Drainage A downstream and outside of the project boundary to continue to flow through the site via an underground 48-inch pipe in the northern parking lot of Building B and convey the discharge flows to Drainage A at the northwest corner of Building B. The project design also includes continued conveyance of stormwater and non-stormwater runoff and connectivity to Drainage B as well as Area C. The existing hydrology support to the riparian/riverine areas located outside and downstream of the project site will not be cut off or significantly reduced. The project will be required to implement these design features as a City condition of approval.



- **Toxics**

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented.

The proposed project is required to implement a Project Specific Water Quality Management Plan (WQMP) with Best Management Practices (BMPs) to address the project's pollutants and preventing them from being discharged into Drainage B or Area C and offsite into downstream receiving waterbodies, including Sycamore Canyon Creek and the Santa Ana River. The project will be required to implement the WQMP as a City condition of approval.

- **Lighting**

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.

The warehouse buildings will have nighttime lighting for security; however, the lights will be shielded downwards, will have motion detectors, and will only be turned on if and when employees are present. A photometric study is required by the city to ensure that the light sources will be shielded to minimize off-site glare, will not direct light skyward, and will be directed away from adjacent properties and public rights-of-way. If lights are proposed to be mounted on buildings, down-lights shall be utilized. Light poles shall not exceed 20-feet in height. An 8-foot combination wall (4-foot high concrete with 4-foot wrought iron on top) will be constructed along the northern side of Building B to separate the Building B parking and drive areas from the trailhead parking area and block any vehicle headlights from shining into the Sycamore Canyon Wilderness Park to the north. The project will be required to implement these design features as a City condition of approval.

The trail head parking lot, which is located along the northern side of Building B, is a buffer between the warehouse operations at Building B and the wilderness park/preserve. The trail head parking lot will be deeded to the City of Riverside. Per Riverside Municipal Code (RMC) Section 9.08.110, all parks owned by the City of Riverside shall be closed from thirty minutes after sunset of one day and thirty minutes before sunrise of the next day, unless otherwise exempt. Therefore, the trail head parking lot is anticipated to be closed between dusk and dawn and would not have vehicle headlights shining into the park from the parking lot.



- **Noise**

Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards.

Construction

To control noise impacts associated with the construction of a permitted Project, the City of Riverside limits hours of construction to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays. No construction is permitted on Sundays or federal holidays, as outlined in Section 7.35.020 (G) of the General Noise Regulations. Therefore, Project construction noise levels are considered exempt from municipal regulation if activities occur within the hours specified in Section 7.35.020 (G); provided a permit has been obtained from the City as required. However, neither the City of Riverside General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for residential uses or sensitive biological resources. A maximum acceptable construction source noise level of 65 dBA is recommended by the Western Riverside County Regional Conservation Authority (RCA) for sensitive riparian/riverine biological receiver locations.¹

Construction noise is anticipated to exceed 65 dBA(A) Leq within portions of the sensitive riparian habitat between the buildings (associated with Drainage B) and the adjacent Sycamore Canyon Wilderness Park. Construction noise impacts will be minimized with implementation of a mitigation measure Noise -1 identified in the project-specific Noise Study for the project as outlined below.

Mitigation Measure Noise-1: Should LBVI be present in the Sycamore Canyon Wilderness Park within 300 feet of the project site, in Parcel A on-site conservation area, or within Parcel B on-site conservation area within 100 feet of the development footprint, construction noise impacts shall be minimized through implementation of the following measures:

1. Install a 12-foot high temporary noise barrier at the perimeter of the limits of disturbance between the construction activities and the adjacent Sycamore Canyon Wilderness Park to the north and east and the on-site conservation areas. The barrier shall be continuous without openings, holes or cracks, and shall reach the ground. The barrier may be constructed with 1-inch plywood and provide a reduction of at least 10 dB(A) to ensure noise levels do not exceed 65 dB(A) at the Sycamore Canyon Wilderness Park and on-site conservation areas. Other materials providing the same reduction shall also be permitted.
2. Heavy grade rubber mats/pads will be used within the bed of the trucks. These mats will help attenuate initial impact noise generated when an excavator drops rock and debris into the bed of the truck. These mats must be maintained and/or replaced as necessary.
3. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards.

¹ Personal communication between Sonya Hooker, Director of Environmental Services, Ruth Villalobos & Associates, Inc. and Elizabeth Dionne, Ecological Resources Specialist, Western Riverside County Regional Conservation Authority, December 2019.



4. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
5. Equipment shall be shut off and not left to idle when not in use.
6. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
7. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
8. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (7:00 am to 7:00 pm on weekdays, and 8:00 am to 5:00 pm on Saturdays).
9. Limit the use of heavy equipment or vibratory rollers and soil compressors along the project boundaries to the greatest extent possible. It is acknowledged that some soil compression may be necessary along the project boundaries.
10. Any jackhammers, pneumatic equipment and all other portable stationary noise sources shall be shielded and noise shall be directed away from sensitive receptors.
11. For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign shall be posted at the project site with the contact phone number. This sign shall be posted at the Alessandro Boulevard frontage as well as the Barton Street frontage.

Operation

As outlined in Chapter 7.25 of Title 7 of the City's Municipal Code, residential noise standards include limits of 55 dB(A) Leq during the daytime hours and 45 dB(A) Leq during the nighttime hours, therefore these limits are applied at the property line of the proposed development and adjacent Sycamore Canyon Wilderness Park and on-site conservation areas. Operational noise from the warehouses will be prevented from extending out into the park/preserve by a minimum 4-foot high concrete wall or 8-foot high concrete walls located along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate sound to the sensitive habitat areas: the riparian/riverine habitat in the conservation areas between the buildings and the wilderness park/preserve to the north. An 8-foot high concrete wall will be constructed along the western, northern and eastern sides of the Parcel 1/Building A site and 42-inch high metal post and cable fence will be located along the northern property line of Parcel 1/Building A site. An 8-foot high concrete wall will be constructed along the northeast and eastern side and a 4-foot high concrete wall along the northern side of the Parcel 2/Building B site, along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate light and sound to adjacent area. The project-specific Noise Study indicates operational noise will not exceed residential noise standards in the on-site conservation areas or adjacent Sycamore Canyon Wilderness Park.



- **Barriers**

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

As outlined above, the warehouses will have 8-foot high concrete walls located along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate sound to the sensitive habitat areas: the riparian/riverine habitat in the conservation areas between the buildings and the wilderness park/preserve to the north. A 42-inch high cable rail theme fence will be located along the northern property line of Parcel 1/Building A site and the Sycamore Canyon Wilderness Park. Remaining perimeters of the site include 8-foot high tubular steel fence. Therefore, the proposed project includes appropriate barriers to minimize unauthorized public access to the on-site conservation areas. The project will be required to implement these design features as a City condition of approval.

- **Grading/Land Development**

Manufactured slopes associated with proposed site development shall not extend into the MSHCP Conservation Area.

The proposed project does not include manufactured slopes in the on-site conservation area or the adjacent Sycamore Canyon Wilderness Park.

- **Invasives**

When approving landscape plans for Development that are proposed adjacent to the MSHCP Conservation Area, Permittees shall consider the invasive, non-native plant species listed below and shall require revisions to landscape plans (subject to the limitations of their jurisdiction) to avoid the use of invasive species for the portions of Development that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

Plants That Should Be Avoided Adjacent to the Conservation Area (MSHCP Table 6-2)

Botanical Name Common Name

Acacia spp. (all species) acacia
Achillea millefolium var. *millefolium* common yarrow
Ailanthus altissima tree of heaven
Aptenia cordifolia red apple
Arctotheca calendula cape weed
Arctotis spp. (all species & hybrids) African daisy
Arundo donax giant reed or arundo grass
Asphodelus fistulosus asphodel
Atriplex glauca white saltbush
Atriplex semibaccata Australian saltbush
Carex spp. (all species*) sedge
Carpobrotus chilensis ice plant
Carpobrotus edulis sea fig
Centranthus ruber red valerian
Chrysanthemum coronarium annual chrysanthemum



Cistus ladanifer (incl. hybrids/varieties) gum rockrose
Cortaderia jubata [syn. *C. Atacamensis*] jubata grass, pampas grass
Cortaderia dioica [syn. *C. sellowiana*] pampas grass
Cotoneaster spp. (all species) cotoneaster
Cynodon dactylon (incl. hybrids, varieties) Bermuda grass
Cyperus spp. (all species*) nutsedge, umbrella plant
Cytisus spp. (all species) broom
Delosperma 'Alba' white trailing ice plant
Dimorphotheca spp. (all species) African daisy, Cape marigold
Drosanthemum floribundum rosea ice plant
Drosanthemum hispidum purple ice plant
Eichhornia crassipes water hyacinth
Elaeagnus angustifolia Russian olive
Eucalyptus spp. (all species) eucalyptus or gum tree
Eupatorium coelestinum [syn. *Ageratina* sp.] mist flower
Festuca arundinacea tall fescue
Festuca rubra creeping red fescue
Foeniculum vulgare sweet fennel
Fraxinus uhdei (and cultivars) evergreen ash, shamel ash
Gaura (spp.) (all species) gaura
Gazania spp. (all species & hybrids) gazania
Genista spp. (all species) broom
Hedera canariensis Algerian ivy
Hedera helix English ivy
Hypericum spp. (all species) St. John's Wort
Ipomoea acuminata Mexican morning glory
Lampranthus spectabilis trailing ice plant
Lantana camara common garden lantana
Lantana montevidensis [syn. *L. sellowiana*] lantana
Limonium perezii sea lavender
Linaria bipartita toadflax
Lolium multiflorum Italian ryegrass
Lolium perenne perennial ryegrass
Lonicera japonica (incl. 'Halliana') Japanese honeysuckle
Lotus corniculatus birdsfoot trefoil
Lupinus arboreus yellow bush lupine
Lupinus texanus Texas blue bonnets
Malephora crocea ice plant
Malephora luteola ice plant
Mesembryanthemum nodiflorum little ice plant
Myoporum laetum myoporum
Myoporum pacificum shiny myoporum
Myoporum parvifolium (incl. 'Prostratum') ground cover myoporum
Oenothera berlandieri Mexican evening primrose
Olea europea European olive tree
Opuntia ficus-indica Indian fig
Osteospermum spp. (all species) trailing African daisy, African daisy,
Oxalis pes-caprae Bermuda buttercup
Parkinsonia aculeata Mexican palo verde
Pennisetum clandestinum Kikuyu grass
Pennisetum setaceum fountain grass
Phoenix canariensis Canary Island date palm
Phoenix dactylifera date palm
Plumbago auriculata cape plumbago
Polygonum spp. (all species) knotweed
Populus nigra 'italica' Lombardy poplar



Prosopis spp. (all species*) mesquite
Ricinus communis castorbean
Robinia pseudoacacia black locust
Rubus procerus Himalayan blackberry
Sapium sebiferum Chinese tallow tree
Saponaria officinalis bouncing bet, soapwort
Schinus molle Peruvian pepper tree, California pepper
Schinus terebinthifolius Brazilian pepper tree
Spartium junceum Spanish broom
Tamarix spp. (all species) tamarisk, salt cedar
Trifolium fragiferum strawberry clover
Tropaeolum majus garden nasturtium
Ulex europaeus prickly broom
Vinca major periwinkle
Yucca gloriosa Spanish dagger

An asterisk (*) indicates some native species of the genera exist that may be appropriate.

Through the City's Design Review process, the City has required the removal of any plants identified in Table 6.2 of the MSHCP from the Conceptual Landscape Plan.

6.3 MSHCP BEST MANAGEMENT PRACTICES

Standard best management practices (BMPs) from Volume I, Appendix C of the MSHCP shall be implemented to avoid impacts to biological resources of the MSHCP, as follows:

1. A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
2. Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
4. The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
5. Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian species identified in MSHCP Global Species Objective No. 7.
7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream.



Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.

8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
10. The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
13. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
15. The Permittee shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs

To ensure compliance with MSHCP Best Management Practices the following mitigation measures are recommended:

Mitigation Measure BIOLOGY-1: The Project has been designed to avoid direct construction impacts to riparian plant communities to the greatest extent feasible. Avoidance and minimization measures shall be included in the Project specifications for implementation during construction to further reduce the potential for any temporary, indirect impacts to occur to these areas during construction activities, including the following:

- Trash and other debris shall be properly disposed of and not left on-site in areas where it could fall into protected habitat.



- Project boundaries shall be clearly marked with fencing, or other suitable type of marking material as directed by a qualified biologist. Vehicles and other Project construction personnel shall stay within these delineated Project boundaries.
- Sensitive areas (i.e., jurisdictional drainage features, riparian habitats, and MSHCP Conservation Areas) in proximity to the construction footprint shall be clearly marked, with fencing or other suitable type of marking material as directed by a qualified biologist, for awareness and avoidance.
- Refueling, washing, or other vehicular maintenance activities shall occur a minimum of 100 feet away from riparian areas, including the conserved riparian habitat.
- Equipment would be maintained and checked at least on a daily basis for leaks.
- All vehicle leaks or other hazardous material leaks shall be contained and cleaned up immediately. All contaminated soil shall be removed from the site and disposed of properly.

Mitigation Measure BIOLOGY-2: During soil excavation, grading, or other subsurface disturbances, the construction contractor shall supervise provision and maintenance of all standard dust control BMPs to reduce fugitive dust emissions, including but not limited to the following actions:

- Water any exposed soil areas a minimum of twice per day, or as allowed under any imposed drought restrictions. On windy days or when fugitive dust can be observed leaving the construction site, additional water shall be applied at a frequency to be determined by the on-site construction superintendent.
- Pave, periodically water, or apply chemical stabilizer to construction access/egress points.
- Minimize the amount of area disturbed by clearing, grading, earthmoving, or excavation operations at all times.
- Operate all vehicles on graded areas at speeds less than 15 miles per hour.
- Cover all stockpiles that would not be utilized within three days with plastic or equivalent material, to be determined by the on-site construction superintendent, or spray them with a non-toxic chemical stabilizer.

Mitigation Measure BIOLOGY-3: To address potential short-term impacts to water quality within the on-site drainages from construction runoff that may carry storm water pollutants, a SWPPP shall be implemented by the construction contractor as required by the California General Construction Storm Water Permit pursuant the Regional Board regulations. The SWPPP shall identify BMPs related to the control of toxic substances, including construction fuels, oils, and other liquids. These BMPs would be implemented by the construction contractor prior to the start of any ground clearing activity, shall be subject to periodic inspections by the City and the Project's hydrological consultant, shall be maintained throughout the construction period and remain in place until all landscape and permanent BMPs are in place. BMPs shall be monitored and repaired if necessary, to ensure maximum erosion, sediment, and pollution control.

- The use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to conserved riparian habitat shall be prohibited.



- All fiber rolls,² straw waddles, and/or hay bales utilized within and adjacent to the Project site shall be free of non-native plant materials.
- Construction contractor shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws.
- Water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities shall not be allowed to enter the conserved riparian habitat or be placed in locations that may be subjected to high storm flows.
- Spoil sites shall not be located within jurisdictional areas and MSHCP Conservation Areas or locations that may be subjected to high storm flows, where spoil shall be washed back into the conserved riparian habitat where it would impact streambed habitat and aquatic or riparian vegetation.
- Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from Project related activities shall be prevented from contaminating the soil and/or entering the conserved riparian habitat. These materials, placed within or where they may enter the conserved riparian habitat or any party working under contract to the construction contractor, shall be removed immediately.
- No equipment maintenance shall be done within or near the conserved riparian habitat where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into the conserved riparian habitat. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the conserved riparian habitat.

Mitigation Measure BIOLOGY-4: The following measures shall also be incorporated into the construction documents and specifications, and implemented by the contractor, to avoid potential construction-related impacts to the conserved riparian habitat outside of the approved disturbance limits:

- Construction worker training shall be provided by a qualified biologist at the first on-site construction meeting;
- Project boundaries shall be clearly marked and or signs shall be erected near the top of slope adjacent to the conserved riparian habitat to prevent accidental/unauthorized intrusions during construction; and
- Staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, shall be prohibited within 20 feet from the top of slope adjacent to the conserved riparian habitat.

² Fiber rolls or erosion control mesh shall be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread.



Mitigation Measure BIOLOGY-5: The Project shall incorporate special edge treatments to minimize edge effects by providing a safe transition between developed areas and the conserved riparian habitat, and which would be compatible with Project operation and the protection and sustainability of conserved areas. The following special edge treatments are applicable to the Project, and shall be implemented:

- a) The Project is required to stage construction vehicles and equipment outside of the limits of CDFW jurisdictional streambed and riparian habitat to the maximum feasible distance; and
- b) Any manufactured slopes shall be kept within the boundaries of the Project footprint and not encroach into the conserved riparian habitat or the MSHCP Conservation Area.

6.4 SKRHCP and MSHCP

Payment of the SKRHCP fee is required for the project. Impacts to and take authorization for the Stephens' kangaroo rat is covered under the SKRHCP for this project. Payment of MSHCP fees is required for the project. Payment of the MSHCP fee and compliance with Section 6 of the MSHCP provides full mitigation for the project's impacts on MSHCP covered species.

To ensure compliance with the mitigation fee requirements of the MSHCP the following mitigation measures are recommended:

Mitigation Measure BIOLOGY-6: The Project shall issue payment to the City for the appropriate SKRHCP fee prior to issuance of a grading permit.

Mitigation Measure BIOLOGY-7: The Project shall issue payment to the City for the appropriate MSHCP fee prior to issuance of a grading permit.

6.5 Burrowing Owl

A focused burrowing owl survey must be conducted during the breeding season (four visits between 1 March - 31 August). Regardless of the result of those surveys, because of the presence of suitable habitat that could be occupied at any time, a one-day preconstruction survey must also be conducted 30 days or less before groundbreaking.

To ensure compliance with section 6.3.2 of the MSHCP the following mitigation measure is recommended:

Mitigation Measure BIOLOGY-8: Prior to issuance of a grading permit, a 30-day pre-construction burrowing owl survey (in accordance with the Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan) shall be conducted by a qualified biologist to ensure burrowing owl remain absent from the project site. If burrowing owls are observed on the project site during the pre-construction surveys, a burrowing owl relocation plan shall be prepared and submitted to CDFW and the RCA for review and approval prior to commencement of vegetation clearing/grubbing, grading, and construction activities on the project site. The burrowing owl relocation plan shall outline methods to relocate any burrowing owls occurring on the project site and ensure compliance with the MSHCP, MBTA and California Fish and Game Code. If an active burrow is found during the breeding season (February 1 through August 31) occupied burrows will not be disturbed and will be provided with a protective buffer unless a qualified biologist verifies through noninvasive means that either: (1) the birds have not begun egg laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer will depend on the time of year and level of disturbance.



6.6 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP Section 6.1.2)

Focused surveys for the least Bell's vireo and southwestern willow flycatcher were required pursuant to Section 6.1.2 since suitable habitat is present for them in the BSA. Least Bell's vireo was present in the BSA during the 2014 focused survey for that species and southwestern willow flycatcher. The project proponent intends to assume that the least Bell's vireo and southwestern willow flycatcher are present and mitigate accordingly. The DBESP for these species, prepared by RVA (2020) will detail how project mitigation will be equivalent or superior to MSHCP requirements for the preservation of these species and their habitat.

For southwestern willow flycatcher MSHCP requirements are:

- If survey results are positive, 100 percent of the occupied portions of the property that provide for long-term conservation value for the southwestern willow flycatcher shall be conserved in a manner consistent with conservation of the flycatcher. This will involve including 100 meters of undeveloped landscape adjacent to the habitat conserved.

For least Bell's vireo MSHCP requirements are:

- If survey results are positive, 90 percent of the occupied portions of the property that provide for long-term conservation value for the least Bell's vireo shall be conserved in a manner consistent with conservation of the vireo. This will involve including 100 meters of undeveloped landscape adjacent to the habitat conserved.

6.7 Paniculate Tarplant and Robinson's pepper-grass

Although not covered by the MSHCP, paniculate tarplant only has a CRPR of 4.2. CNPS List 4 plants have the lowest sensitivity ranking in the CNPS system, "Plants of Limited Distribution - A Watch List." Impacts from the project on this species are not expected to be significant as it is not expected to substantially reduce the habitat for this species throughout its range. To further reduce impacts to this species, we recommend that seed be collected at the appropriate season and / or that topsoil containing the seed bank be preserved for use in restoration following project completion. This will also benefit Robinson's pepper-grass, should it occur.

Mitigation Measure BIOLOGY-9: Prior to issuance of a grading permit, a qualified biologist shall collect seed for paniculate tarplant and Robinson's pepper-grass throughout the proposed development footprint of the project. The seeds shall be stored in accordance with the biologist's recommendations until restoration efforts are commenced within the existing and additional Restricted Property/conservation area. If seed is not collected prior to grading permit issuance then topsoil, where identified by the qualified biologist, shall be salvaged and temporarily stored in accordance with the qualified biologists' recommendations until restoration efforts are commenced. On site restoration efforts shall incorporate the collected seed or salvaged topsoil.

6.8 The Federal Migratory Bird Treaty Act and State Codes Protecting Birds

The Federal MBTA and/or state codes protect all native bird species - both common and special status. In most scenarios, MSHCP coverage does not override the nesting bird protections provided by these. Impacts to nesting birds, both direct and indirect, can be minimized or eliminated by conducting work activities outside of the local breeding season. Although nesting can occur in any month in southern California for some species, breeding in the study area, given the habitat, would primarily be expected from about February 1st through August 31st. Work from about September 1st through January 31st would avoid most negative affects to birds and nesting activity. If work must be done during the breeding season, surveys for nesting birds should occur prior to all vegetation clearing and ground disturbance. In order to avoid



violation of the MBTA and avoid and/or mitigate impacts to special status bird species known from the project site which are not covered by the MSHCP, the following mitigation is recommended.

Mitigation Measure BIOLOGY-9: Grading and site preparation activities shall be conducted outside the nesting season, generally from February 1st through August 31st. If grading and other site preparation activities cannot occur outside of the nesting season, then a pre-construction clearance survey for nesting birds shall be conducted by a qualified biologist within seven (7) days of the start of site preparation activities to ensure that no nesting birds will be disturbed during construction. If active nests are found, and determined by the qualified biologist that the nest may be impacted, they should be avoided until young have fledged. While there is no established protocol for nest avoidance, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for raptors and threatened/endangered species and 100 – 300 feet for non-raptors. Any active nests observed during the survey shall be mapped on an aerial photograph. Only construction activities (if any) that have been approved by a Biological Monitoring shall take place within the buffer zone until the nest is vacated. The biologist shall serve as a construction monitor when construction activities take place near active nest areas to ensure that no inadvertent impacts on these nests occur. Results of the pre-construction survey and any subsequent monitoring shall be provided to the applicant and the City Planning Department. The monitoring report shall summarize the results of the next monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds.



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APPENDIX A

PLANT SPECIES

PLANT SPECIES LIST

This list reports plant species observed in the project area during Wood site visits dating back to January 2014. Species seen only during field visits prior to 2019 are highlighted. Other species may have been overlooked or undetectable due to their seasonal growth patterns. Nomenclature and taxonomy for flora observed on site follows the Jepson eFlora (2019). If no common name is listed in Jepson, the United States Department of Agriculture PLANTS database (2019) is followed.

SYMBOLS AND ABBREVIATIONS:

- * Non-native species
- ** Sensitive species (State or federally listed as endangered, threatened, or candidate; state species of special concern/watchlist/tracked; Bureau of Land Management and/or Forest Service sensitive; MSHCP)
- sp. Identified only to genus; species unknown (plural = spp.)
- ssp. Subspecies
- var. Variety
- cf. Uncertain identification, but plant specimen "compares favorably" to named species

ANGIOSPERMAE: DICOTYLEDONES

Adoxaceae

Sambucus nigra ssp. *caerulea*

Anacardiaceae

**Schinus molle*

**Schinus terebinthifolius*

Apiaceae

**Apium graveolens*

Apocynaceae

Asclepias fascicularis

Asteraceae

Ambrosia acanthicarpa

Artemisia californica

Baccharis pilularis

Baccharis salicifolia

Baccharis salicina

Baccharis sarothroides

Carduus pycnocephalus ssp. *pycnocephalus*

**Centaurea melitensis*

**Cirsium vulgare*

Corethrogyne filaginifolia

***Deinandra paniculata*

Encelia farinosa

Ericameria palmeri var. *pachylepis*

Erigeron canadensis

Gnaphalium palustre

Helianthus annuus

DICOT FLOWERING PLANTS

Muskroot Family

blue elderberry

Sumac Family

pepper tree

Brazilian pepper tree

Carrot Family

celery

Dogbane Family

narrow-leaf milkweed

Sunflower Family

annual bur-sage

California sagebrush

coyote brush

mulefat

willow baccharis

broom baccharis

Italian thistle

toalote

bull thistle

California-aster

paniculate tarplant

brittlebush

thickbracted goldenbush

horseweed

western marsh cudweed

common sunflower



<i>Heterotheca grandiflora</i>	telegraph weed
<i>Isocoma menziesii</i>	coastal goldenbush
* <i>Lactuca serriola</i>	prickly lettuce
<i>Lepidospartum squamatum</i>	scale-broom
* <i>Oncosiphon pilulifer</i>	stinknet
<i>Pseudognaphalium californicum</i>	ladies' tobacco
<i>Stephanomeria exigua</i>	small wirelettuce
<i>Xanthium strumarium</i>	cocklebur
Boraginaceae	Borage Family
<i>Amsinckia intermedia</i>	common fiddleneck
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	alkali heliotrope
<i>Pectocarya linearis</i> ssp. <i>ferocula</i>	narrow-toothed pectocarya
<i>Phacelia ramosissima</i>	branching phacelia
<i>Plagiobothrys collinus</i> var. <i>californicus</i>	California popcornflower
Brassicaceae	Mustard Family
* <i>Hirschfeldia incana</i>	short-pod mustard
Cactaceae	Cactus Family
<i>Cylindropuntia californica</i> var. <i>parkeri</i>	valley cholla
Crassulaceae	Stonecrop Family
<i>Crassula connata</i>	pygmy-weed
Cucurbitaceae	Gourd Family
<i>Marah macrocarpa</i>	man-root
Euphorbiaceae	Spurge Family
<i>Croton setiger</i>	doveweed
<i>Euphorbia albomarginata</i>	rattlesnake sandmat
* <i>Euphorbia peplus</i>	petty spurge
<i>Euphorbia serpillifolia</i>	thyme-leaved spurge
* <i>Ricinus communis</i>	castor bean
Fabaceae	Pea Family
<i>Astragalus pomonensis</i>	Pomona milkvetch
<i>Lupinus</i> sp.	unidentified lupine
<i>Trifolium</i> sp.	clover
Geraniaceae	Geranium Family
* <i>Erodium botrys</i>	broadleaf filaree
* <i>Erodium cicutarium</i>	redstem filaree
Lamiaceae	Mint Family
* <i>Marrubium vulgare</i>	horehound
<i>Salvia apiana</i>	white sage
<i>Trichostema lanceolatum</i>	vinegar weed
Montiaceae	Miner's Lettuce Family
<i>Calandrinia ciliata</i>	red maids
Nyctaginaceae	Four o'clock Family
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	wishbone bush
Oleaceae	Olive Family
<i>Fraxinus velutina</i>	velvet ash



Phrymaceae

Erythranthe guttata

Platanaceae

Platanus racemosa

Polygonaceae

Eriogonum fasciculatum – two ssp.

**Rumex crispus*

Salicaceae

Populus fremontii

Salix gooddingii

Salix laevigata

Salix lasiolepis

Solanaceae

Datura wrightii

**Nicotiana glauca*

Tamaricaceae

**Tamarix ramosissima*

Urticaceae

Urtica dioica

Verbenaceae

Verbena lasiostachys

MONOCOTYLEDONEAE

Arecaceae

**Washingtonia* sp.

Cyperaceae

Cyperus eragrostis

Juncaceae

Juncus balticus ssp. *ater*

Poaceae

**Avena* cf. *fatua*

**Bromus madritensis* ssp. *rubens*

Distichlis spicata

**Ehrharta erecta*

**Poa annua*

**Polypogon monspeliensis*

**Schismus* sp.

Lopseed Family

seep monkeyflower

Sycamore Family

western sycamore

Buckwheat Family

California buckwheat

curly dock

Willow Family

Fremont cottonwood

black willow

red willow

arroyo willow

Nightshade Family

jimson weed

tree tobacco

Tamarisk Family

saltcedar

Nettle Family

stinging nettle

Vervain Family

western vervain

MONOCOT FLOWERING PLANTS

Palm Family

fan palm sp.

Sedge Family

tall flatsedge

Rush Family

Baltic rush

Grass Family

wild oat

red brome

salt grass

panic veldt grass

annual blue grass

rabbitfoot grass

Mediterranean grass



APPENDIX B

VERTEBRATE SPECIES LIST

VERTEBRATE ANIMALS LIST

This list reports vertebrate animal species observed in the project area during Wood site visits dating back to January 2014. Species seen only during field visits prior to 2019 are highlighted. Other species may have been overlooked or undetectable due to their seasonal or daily activity patterns. Nomenclature and taxonomy for fauna observed on site follows the California Bird Records Committee Official California Checklist (2019) for birds and CDFW (2016) for herpetofauna and mammals.

SYMBOLS AND ABBREVIATIONS:

- * Non-native species
- ** Sensitive species (State or federally listed as endangered, threatened, or candidate; state species of special concern/watchlist/tracked; USFWS bird of conservation concern; Bureau of Land Management and/or Forest Service sensitive)
- sp. Identified only to genus; species unknown (plural = spp.)

HERPETOFAUNA

Hylidae

Pseudacris hypochondriaca

Phrynosomatidae

Uta stansburiana

Sceloporus occidentalis

Sceloporus orcutti

Crotalidae

***Crotalus ruber*

AVIFAUNA

Anatidae

Anas platyrhynchos

Aythya americana

Odontophoridae

Callipepla californica

Columbidae

**Columba livia*

Patagioenas fasciata

**Streptopelia decaocto*

Zenaida macroura

Cuculidae

Geococcyx californianus

Trochilidae

Archilochus alexandri

Calypte anna

Calypte costae

*Selasphorus **rufus/S. sasin*

Rallidae

Porzana carolina

REPTILES & AMPHIBIANS

Treefrogs

Baja California treefrog

Spiny Lizards

common side-blotched lizard

western fence lizard

granite-spiny lizard

Pitvipers

red-diamond rattlesnake

BIRDS

Ducks, Geese, and Swans

mallard

redhead

New World Quail

California quail

Pigeons and Doves

rock pigeon

band-tailed pigeon

Eurasian collared dove

mourning dove

Cuckoos, Roadrunners, and Anis

greater roadrunner

Hummingbirds

black-chinned hummingbird

Anna's hummingbird

Costa's hummingbird

rufous or Allen's hummingbird

Rails

sora



<i>Fulica americana</i>	American coot
Charadriidae	Plovers and Lapwings
<i>Charadrius vociferus</i>	killdeer
Phalacrocoracidae	Cormorants and Shags
<i>Phalacrocorax auritus</i>	double-crested cormorant
Cathartidae	New World Vultures
<i>Cathartes aura</i>	turkey vulture
Accipitridae	Hawks, Eagles, Harriers, Kites
** <i>Circus hudsonius</i>	northern harrier
** <i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo lineatus</i>	red-shouldered hawk
<i>Buteo jamaicensis</i>	red-tailed hawk
Tytonidae	Barn Owls
<i>Tyto alba</i>	barn owl
Picidae	Woodpeckers
<i>Melanerpes formicivorus</i>	acorn woodpecker
<i>Dryobates nuttallii</i>	Nuttall's woodpecker
<i>Colaptes auratus</i>	northern flicker
Falconidae	Caracaras and Falcons
<i>Falco sparverius</i>	American kestrel
Tyrannidae	Flycatchers
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Tyrannus vociferans</i>	Cassin's kingbird
<i>Tyrannus verticalis</i>	western kingbird
<i>Contopus sordidulus</i>	western wood-pewee
** <i>Empidonax traillii</i>	willow flycatcher
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
Vireonidae	Vireos
** <i>Vireo bellii</i>	least Bell's vireo
<i>Vireo cassinii</i>	Cassin's vireo
<i>Vireo gilvus</i>	warbling vireo
Corvidae	Jays, Crows, Ravens, Magpies
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
Alaudidae	Larks
** <i>Eremophila alpestris actia</i>	California horned lark
Hirundinidae	Swallows
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow
<i>Hirundo rustica</i>	barn swallow
<i>Petrochelidon pyrrhonota</i>	cliff swallow
Aegithalidae	Bushtits and Long-tailed Tits
<i>Psaltirpus minimus</i>	bushtit
Troglodytidae	Wrens
<i>Thryomanes bewickii</i>	Bewick's wren
Poliophtilidae	Gnatcatchers and Gnatwrens
<i>Poliophtila caerulea</i>	blue-gray gnatcatcher
Regulidae	Kinglets



<i>Regulus calendula</i>	ruby-crowned kinglet
Turdidae	Thrushes
<i>Catharus ustulatus</i>	Swainson's thrush
<i>Catharus guttatus</i>	hermit thrush
Mimidae	Mockingbirds and Thrashers
<i>Mimus polyglottos</i>	northern mockingbird
<i>Toxostoma redivivum</i>	California thrasher
Sturnidae	Starlings
* <i>Sturnus vulgaris</i>	European starling
Ptiliognatidae	Silky-flycatchers
<i>Phainopepla nitens</i>	phainopepla
Passeridae	Old World Sparrows
* <i>Passer domesticus</i>	house sparrow
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	house finch
<i>Carduelis psaltria</i>	lesser goldfinch
** <i>Spinus lawrencei</i>	Lawrence's goldfinch
Passerellidae	New World Sparrows
<i>Chondestes grammacus</i>	lark sparrow
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
<i>Passerculus sandwichensis</i>	savannah sparrow
<i>Melospiza melodia</i>	song sparrow
<i>Melospiza crissalis</i>	California towhee
** <i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow
<i>Pipilo maculatus</i>	spotted towhee
Icteridae	Orioles, Grackles and Cowbirds
<i>Sturnella neglecta</i>	western meadowlark
<i>Icterus cucullatus</i>	hooded oriole
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Molothrus ater</i>	brown-headed cowbird
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
Parulidae	New World Warblers
** <i>Setophaga petechia</i>	yellow warbler
<i>Setophaga coronata</i>	yellow-rumped warbler
<i>Setophaga nigrescens</i>	black-throated gray warbler
<i>Cardinalis pusilla</i>	Wilson's warbler
Cardinalidae	Cardinals and Allies
<i>Passerina caerulea</i>	Blue Grosbeak
MAMMALIA	MAMMALS
Leporidae	Rabbits and Hares
<i>Sylvilagus audubonii</i>	desert cottontail
** <i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit
Sciuridae	Squirrels
<i>Spermophilus beecheyi</i>	California ground squirrel (burrows)
Geomyidae	Pocket Gophers
<i>Thomomys bottae</i>	Botta's pocket gopher (mounds)
Heteromyidae	Kangaroo Rats and Relatives
** <i>Dipodomys stephensi</i>	Stephens' kangaroo rat (burrows, sign)



Muridae

Neotoma sp.

Canidae

Canis latrans

Felidae

Lynx rufus

Mice, Rats, and Voles

wood rat (middens)

Foxes, Wolves, and Relatives

coyote (scat)

Cats

bobcat (scat)

APPENDIX C

PHOTOGRAPHS

The report cover photo (page i) looks south at proposed new project driveway location.



Photo 1. Non-native grassland from center of eastern site. Burrowing owl habitat.



Photo 2. Sparse Riversidean sage scrub from northwestern corner of western site.



Photo 3. Riparian (state & federally jurisdictional waters, MSHCP riverine/riparian, and potential least Bell's vireo & southwestern willow flycatcher habitat. This area is project designated as restricted property to be preserved.

APPENDIX D

JURISDICTIONAL DELINEATION

**JURISDICTIONAL DELINEATION REPORT
SYCAMORE HILLS DISTRIBUTION CENTER
CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA**



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18 December 2020

Wood Project No. 1755500029

wood.

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APPENDIX A	WETLAND DETERMINATION DATA FORMS
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ACRONYMS AND ABBREVIATIONS

Wood	Wood Environment and Infrastructure, Inc.
AMSL	above mean sea level
APN	assessor parcel number
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
EPA	Environmental Protection Agency
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
GIS	Geographic Information System
IP	Individual Permit
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NL	not listed
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OBL	obligate
OHWM	ordinary high-water mark
Rapanos	Rapanos v. U.S. and Carabell v. U.S.
RPW	relatively permanent waterway
RWQCB	Regional Water Quality Control Board
SWANCC	Solid Waste Agency of Northern Cook County v. USACE
TNW	traditionally navigable waterway
UPL	upland
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture, Natural Resources Conservation Service
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
WSC	Waters of the State of California
WUS	Waters of the United States

1.0 INTRODUCTION

Darrell Butler is proposing to develop the Sycamore Hills Distribution Center (proposed project). Darrell Butler retained Wood Environment and Infrastructure, Inc. (Wood) to determine the potential for impacts to jurisdictional waters from the development of the proposed project.

This report presents regulatory framework, methods, and results of a delineation of jurisdictional waters, wetlands, and associated riparian habitat potentially impacted by the development of the proposed project. The purpose of the delineation is to determine the extent of state and federal jurisdiction within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, and the County of Riverside under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

1.1 Project Description

The project proposes subdividing the site into two numbered parcels (Parcels 1 and 2), and three lettered parcels (Parcels A, B, and C). Each parcel is proposed to be developed with a high cube transload short-term warehouse building (Buildings A and B). Building A, a 400,000 square foot warehouse, will be constructed on Parcel 1. Building B, a 203,100 square foot warehouse, will be constructed on Parcel 2. Associated improvements include parking, fire lanes, fencing and walls (including retaining walls), landscaping, and water quality treatment areas.

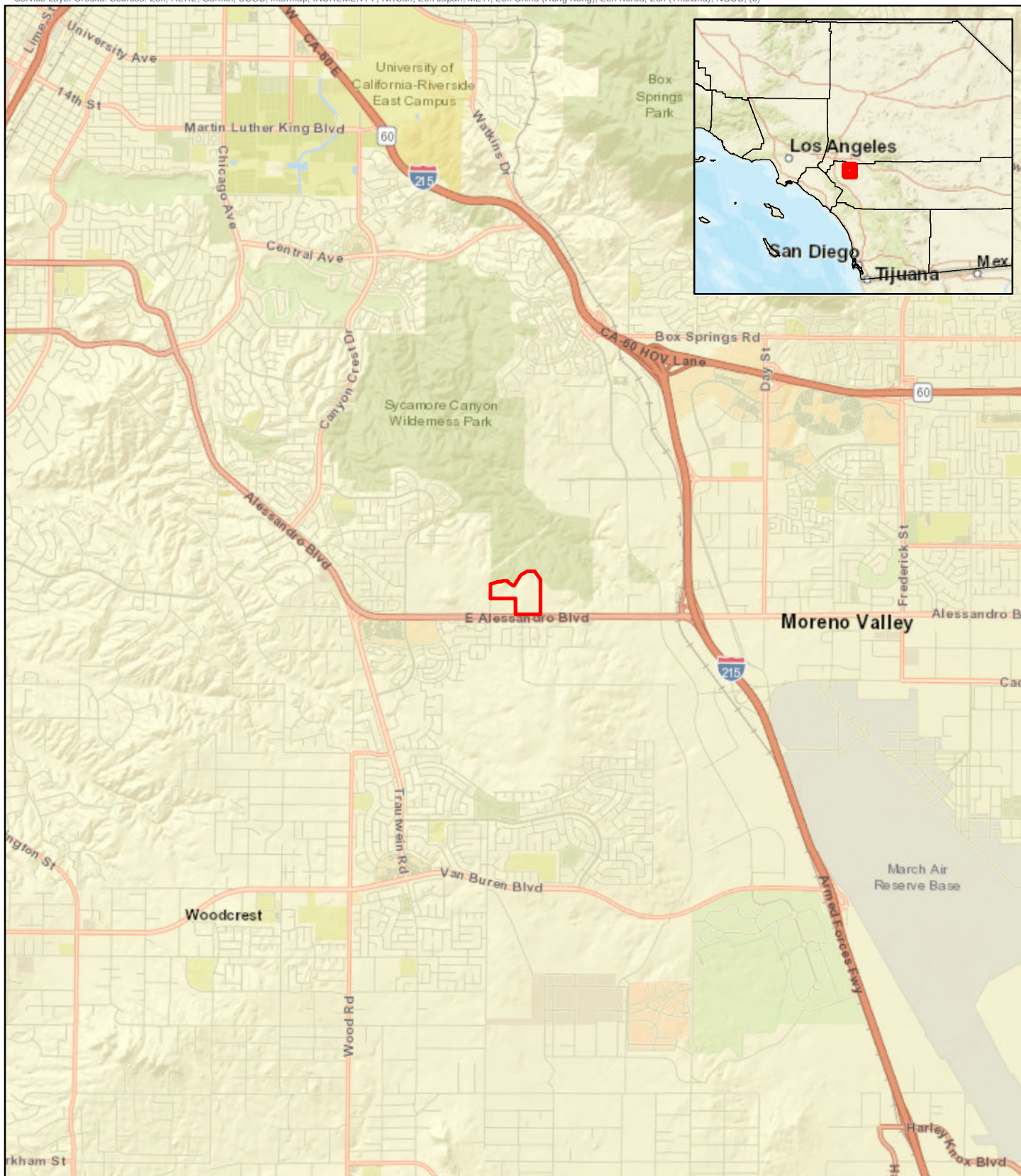
Parcels A and Parcel B consist of existing Restricted Property of natural land, with a supporting jurisdictional feature, totaling approximately 11.6 acres. A 0.67-acre driveway will be constructed through the Restricted Property to provide street access from Alessandro Boulevard to Parcel 1, which would reduce the Restricted Property to 10.93 acres. However, 1.44 acres will be added to Parcel A to mitigate this loss, resulting in a total of 12.37 acres of Restricted Property (net gain of 0.77 acres). A Conservation Easement is proposed to be placed over the amended 12.37 acres of Restricted Property.

A trailhead parking lot is proposed on Parcel C, totaling 1.18 acres, for access to the Sycamore Canyon Wilderness Park. Improvements include a parking lot, sidewalk, shade structure, bike rack, drinking fountain, fencing, and a Fire Department and access gate. Parcel C will be dedicated to the City.

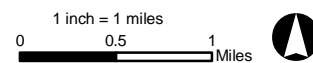
1.2 Project Location

The study area consists of assessor parcel numbers 263-060-022, -024, and -026 which encompass approximately 49.60 acres. It is located in the City of Riverside, Riverside County, California (Figure 1). Specifically, it is located within Section 9 of Township 3 South, Range 4 West, as shown on the United States Geological Survey (USGS) 7.5-minute Riverside East, California

quadrangle (Figure 2). The geographic coordinates near the middle of the site are 33.91916° North latitude and 117.30918° West longitude. The proposed project site is bordered to the south by East Alessandro Boulevard, to the west by Barton Street, and to the north by Sycamore Canyon Regional Park, with unimproved private land to the east.



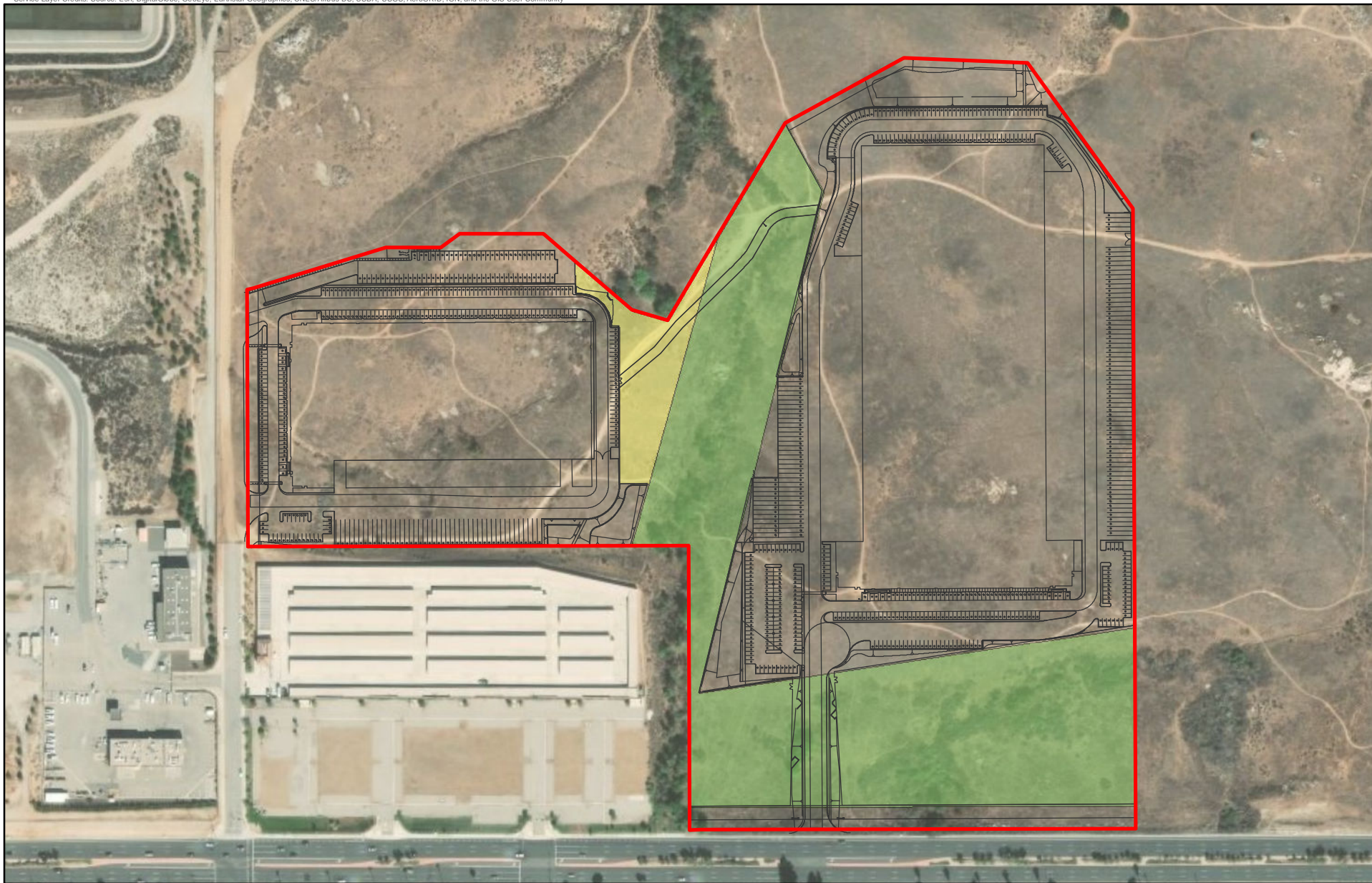
Path: Q:\3554_NaturalResources\SycamoreCanyon_1755500029\MXD\ReportFigures\BioResources_MSHCP_Report_2019\Fig1_Regional.mxd, aaron.johnson 11/15/2018



wood.

 Project Location

FIGURE 1
Regional Map
Sycamore Hills Distribution Center
Riverside, CA



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wood.

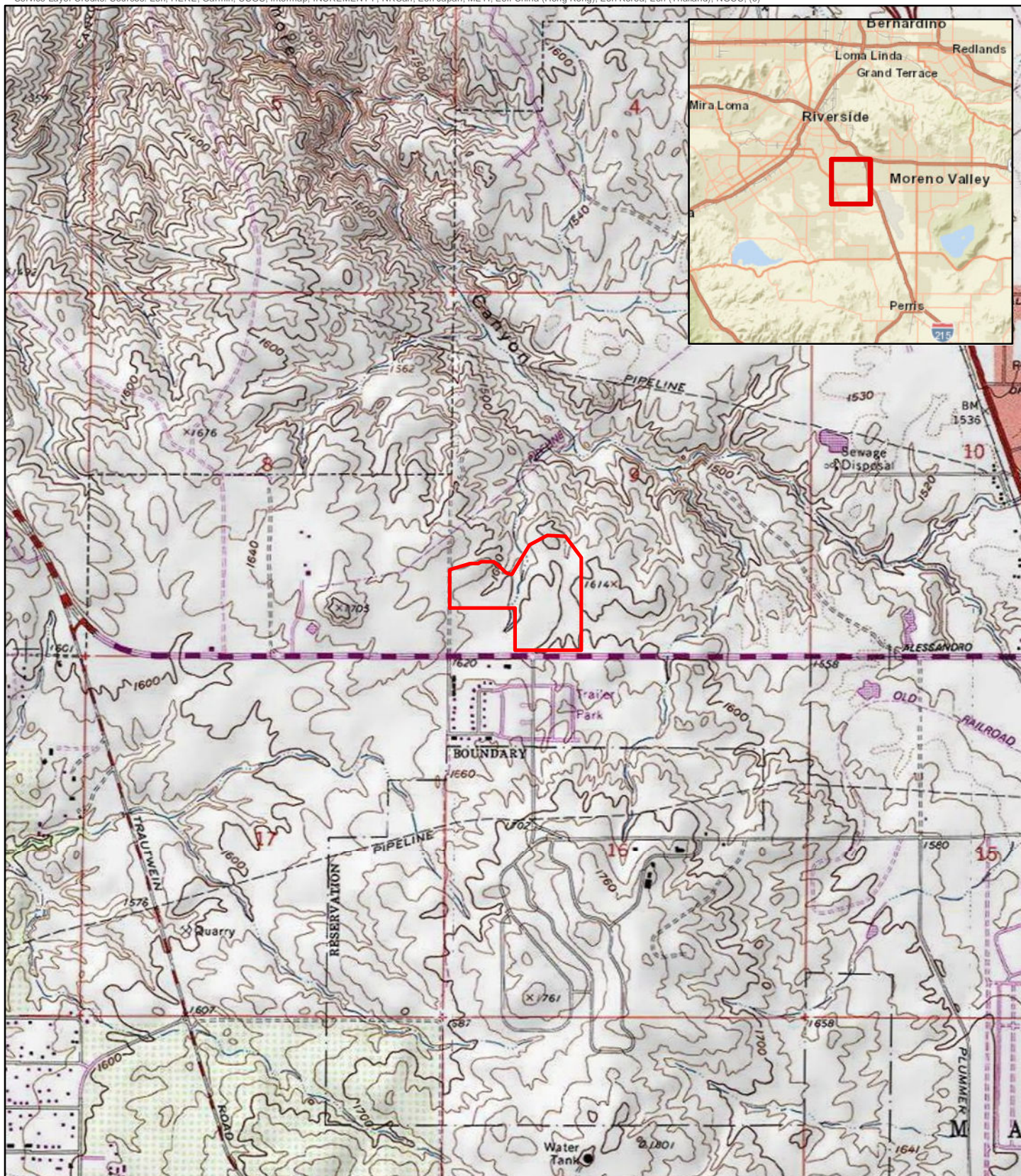
- Project Details
- ▭ Project Boundary
- ▭ Existing Restricted Property
- ▭ Additional Restricted Property

1 inch = 300 feet
0 150 300 Feet



FIGURE 2

Project Location
Sycamore Hills Distribution Center
Riverside, CA



Path: Q:\3554_NaturalResources\SycamoreCanyon_1755500029\MXD\ReportFigures\BioResources_MSHCP_Report_2019\Fig3_USGS.mxd, aaron.johnson 11/15/2018

1 inch = 2,000 feet
0 1,000 2,000 Feet



wood.

Project Location

FIGURE 3
USGS Topographic Map
Sycamore Hills Distribution Center
Riverside, CA

2.0 REGULATORY FRAMEWORK

1.1 U.S. Army Corps of Engineers

The USACE regulates the discharge of dredged or fill material in waters of the United States (WUS) pursuant to Section 404 of the CWA.

1.1.1 Waters of the U.S.

CWA regulations (33 CFR 328.3(a)) define WUS as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WUS under the definition;
5. Tributaries of WUS;
6. The territorial seas;
7. Wetlands adjacent to WUS (other than waters that are themselves wetlands).

The USACE delineates non-wetland waters in the Arid West Region by identifying the ordinary high-water mark (OHWM) in ephemeral and intermittent channels (USACE 2008a). The OHWM is defined in 33 CFR 328.3(e) as:

“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”

Identification of OHWM involves assessments of stream geomorphology and vegetation response to the dominant stream discharge. Determining whether any non-wetland water is a jurisdictional WUS involves further assessment in accordance with the regulations, case law, and clarifying guidance as discussed below.

1.1.2 Wetlands and Other Special Aquatic Sites

Wetlands are defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil

conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

Special aquatic sites are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. Special aquatic sites include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes. They are defined in 40 CFR 230 Subpart E.

1.1.3 Supreme Court Decisions

Solid Waste Agency of Northern Cook County

On January 9, 2001, the Supreme Court of the United States issued a decision on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County (SWANCC) ruling stated that the USACE does not have jurisdiction over “non-navigable, isolated, intrastate” waters.

1.1.4 Rapanos/Carabell

In the Supreme Court cases of *Rapanos v. United States* and *Carabell v. United States* (herein referred to as *Rapanos*), the court attempted to clarify the extent of USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the Court. In light of the *Rapanos* decision, the USACE will assert jurisdiction over a traditional navigable waterway (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are a relatively permanent waterway (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months) and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not RPWs, and wetlands adjacent to but that do not directly abut a non-navigable RPW.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snow pack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

1.1.5 2015 Clean Water Rule

The federal government issued the Clean Water Rule in 2015 in order to resolve jurisdictional ambiguity resulting from previous Supreme Court decisions (i.e. SWANCC, *Rapanos*). On June 22, 2015, the USACE and EPA published the Clean Water Rule: Definition of “Waters of the United States”; Final Rule (40 CFR Parts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401).

The Clean Water Rule was repealed October 22, 2019.

1.1.6 2020 The Navigable Waters Protection Rule

On January 23, 2020, the Environmental Protection Agency (EPA) and the Department of the Army published a final rule called “The Navigable Water Protection Rule.”

In this final rule, the agencies interpret WUS to encompass:

- The territorial seas and traditional navigable waters;
- Perennial and intermittent tributaries that contribute surface water flow to such waters;
- Certain lakes, ponds, and impoundments of jurisdictional waters; and
- Wetlands adjacent to other jurisdictional waters.

The final rule excludes from the definition of WUS all waters or features not mentioned above, specifically clarifying that WUS do not include the following:

- groundwater, including groundwater drained through subsurface drainage systems;
- ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools;
- diffuse stormwater runoff and directional sheet flow over upland;
- ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations;
- prior converted cropland;
- artificially irrigated areas that would revert to upland if artificial irrigation ceases;
- artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters;
- water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
- stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
- groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and
- waste treatment systems.

This rule was published in the Federal Register on April 21, 2020 and went into effect on June 22, 2020.

1.2 Regional Water Quality Control Board

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

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

Resources Control Board, 2020).

The Water Boards define an area as wetland as follows:

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

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

The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
 - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
 - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
 - i. Industrial or municipal wastewater treatment or disposal,
 - ii. Settling of sediment,
 - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
 - iv. Treatment of surface waters,
 - v. Agricultural crop irrigation or stock watering,
 - vi. Fire suppression,
 - vii. Industrial processing or cooling,
 - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
 - ix. Log storage,
 - x. Treatment, storage, or distribution of recycled water, or
 - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
 - xii. Fields flooded for rice growing.

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

1.3 California Department of Fish and Wildlife

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states:

“An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015).”

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds. In general, under 1602 of the Fish and Game Code, CDFW jurisdiction extends to the maximum extent or expression of a stream on the landscape (CDFW, 2010). It has been the practice of CDFW to define a stream as “a body of water that flows perennially or episodically and that is defined by the area in a channel which water currently flows, or has flowed over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators” (Brady and Vyverberg, 2013). Thus, a channel is not defined by a specific flow event, nor by the path of surface water as this path might vary seasonally. Rather, it is CDFW's practice to define the channel based on the topography or elevations of land that confine the water to a definite course when the waters of a creek rise to their highest point.

2.1 Western Riverside County MSHCP

Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, of the Western Riverside County MSHCP defines riparian/riverine areas as “lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year”.

Section 6.1.2 of the Western Riverside County MSHCP further defines vernal pools 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. 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 the 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”.

Areas meeting the definition of riparian/riverine or vernal pools which are artificially created are not included in these definitions, with the exception of wetlands created for the purposes of providing

wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses.

Preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report is required under the Western Riverside County MSHCP for projects that involve impacts to riparian/riverine resources and/or vernal pools. The purpose of the DBESP report is to ensure replacement of any lost functions and values of habitat as it relates to covered species.

3.0 METHODS

Prior to conducting delineation fieldwork, the following literature and materials were reviewed:

- Aerial photographs of the project site at a scale of 1:1800 with 10-foot elevation contours to determine the potential locations of jurisdictional waters or wetlands;
- USGS topographic map (Figure 2) to determine the presence of any “blue line” drainages or other mapped water features;
- USDA soil mapping data; and
- USFWS NWI maps to identify areas mapped as wetland features.

Field surveys of the study area were conducted by Wood biologist Scot Chandler on 17 and 28 January 2014, 09 September 2015 and was verified on 18 May 2017. A revised impact analysis was conducted in September of 2018. James Mace of the US Army Corps of Engineers conducted a site visit and evaluation on 25 September 2018 and confirmed Scot Chandler’s delineation of Waters of the US. An additional field survey of the area was conducted by Wood Senior Biologist Dale Hameister on 14 November 2019 to update existing conditions. Surveys consisted of walking the entire study area and identifying potentially jurisdictional water features. Visual observations of vegetation types and changes in hydrology were used to locate areas for evaluation. Weather conditions during delineation fieldwork were conducive for surveying with generally clear skies.

USACE regulated WUS, including wetlands, and RWQCB WSC were delineated according to the methods outlined in *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE, 2008a). The extent of WUS was determined based on indicators of an OHWM. The OHWM width was measured at points wherever clear changes in width occurred.

Federally regulated wetlands were identified based on the *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008b). Additional data was recorded to determine if an area fulfilled the wetland criteria parameters. Three criteria must be fulfilled in order to classify an area as a wetland under the jurisdiction of the USACE: 1) a predominance of hydrophytic vegetation, 2) the presence of hydric soils, and 3) the presence of wetland hydrology. Details of these criteria are described below:

- **Hydrophytic Vegetation.** The hydrophytic vegetation criterion is satisfied at a location if greater than 50% of all the dominant species present within the vegetation unit have a wetland indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) (USACE, 2008b). An OBL indicator status refers to plants that almost always occur in wetlands. A FACW indicator status refers to plants that usually occur in wetlands but may occur in non-wetlands. A FAC indicator status refers to plants that occur in wetlands and non-wetlands. Other wetland indicator statuses include facultative upland (FACU) which refers to plants that usually occur in non-wetlands, but may occur in wetlands, upland (UPL) for species that almost never occur in wetlands,

and NL for plants that are not listed on the *National Wetland Plant List*. The wetland indicator status used for this report follows the 2013 National Wetland Plant List (Arid West Region) (Lichvar, 2014).

- **Hydric Soils.** The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the *Munsell Soil Color Charts* (Gretag/Macbeth, 2000).
- **Wetland Hydrology.** The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

Areas meeting all three parameters would be designated as USACE wetlands. Site photographs are at the end of this report, and wetland delineation data sheets are included as Appendix A. There were no wetlands identified in the study area during this investigation based on the absence of hydric soil indicators.

CDFW jurisdiction was delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation.

Riparian/riverine areas jurisdictional under the MSHCP were mapped similar to CDFW jurisdiction except where the water feature was artificially created for purposes other than mitigation or enhancement of wildlife habitat.

To determine jurisdictional boundaries, the surveyor walked the length of the drainage within the project area and recorded the centerline with a Trimble GeoXH global positioning system. The width of the drainage was determined by the OHWM and bankfull width measurements at locations where transitions were apparent. Other data recorded included bank height and morphology, substrate type, and all vegetation within the streambed and riparian vegetation adjacent to the streambed. Upon completion of fieldwork, all data collected in the field were incorporated into a Geographic Information System (GIS) along with basemap data. The GIS was then used to quantify the extent of jurisdictional waters.

4.0 ENVIRONMENTAL SETTING

4.1 Existing Conditions

The study area is currently undeveloped with no existing structures. It is dominated by disturbed non-native grassland with a few ephemeral drainages, some with riparian vegetation, transecting the site (Figure 5). The study area appears to be regularly mowed for fire control purposes.

Surrounding land uses include preserved open space to the north as part of Sycamore Canyon Wilderness Park, a municipal water treatment plant and single-family residential to the west, single-family residential to the south with a strip of retail along the south side of Alessandro Boulevard, and undeveloped land to the east (Figure 2).

Elevations within the study area range from approximately 1,616 feet above mean sea level (AMSL) in the northwest portion of the study area to 1,574 feet AMSL near the northern-central portion of the study area.

4.2 Hydrology

The average rainfall for the area is 9.86 inches per year (Western Regional Climate Center 2013). Weather data was recorded approximately 3.5 miles northwest of the project site.

After exiting the site, the on-site drainages flow north for ½ mile before converging with Sycamore Canyon Creek. Sycamore Canyon Creek flows for 2.5 miles northwest before converging with Tequesquito Arroyo. Tequesquito Arroyo flows for 6.9 miles before reaching the Santa Ana River. The Santa Ana River flows southwest for 16 miles before reaching Prado Basin. The Santa Ana River continues west for 30 miles before reaching the Pacific Ocean.

4.3 Vegetation

The study area is dominated by non-native grassland and riparian woodland. The on-site non-native grassland was dominated by common fiddleneck (*Amsinckia intermedia*), filaree (*Erodium* sp.), California-aster (*Corethrogyne filaginifolia*), and short-pod mustard (*Hirschfeldia incana*). The riparian woodland was dominated by willows (*Salix* sp.), mulefat (*Baccharis salicifolia*), and cottonwood (*Populus fremontii*). Vegetation nomenclature follows The Jepson Manual, Vascular Plants of California, 2nd Edition (Baldwin, 2012). When The Jepson Manual does not list a common name, common name nomenclature follows the United States Department of Agriculture, Natural Resources Conservation Service (USDA) Plants Database (USDA, 2014).

4.4 Soils

The USDA online Web Soil Survey (based on the 1971 *Soil Survey of Western Riverside Area, California*) (Soil Survey Staff, 2018) was reviewed to determine the soil types mapped as occurring within the study area. None of the soil types within the study area are found on the

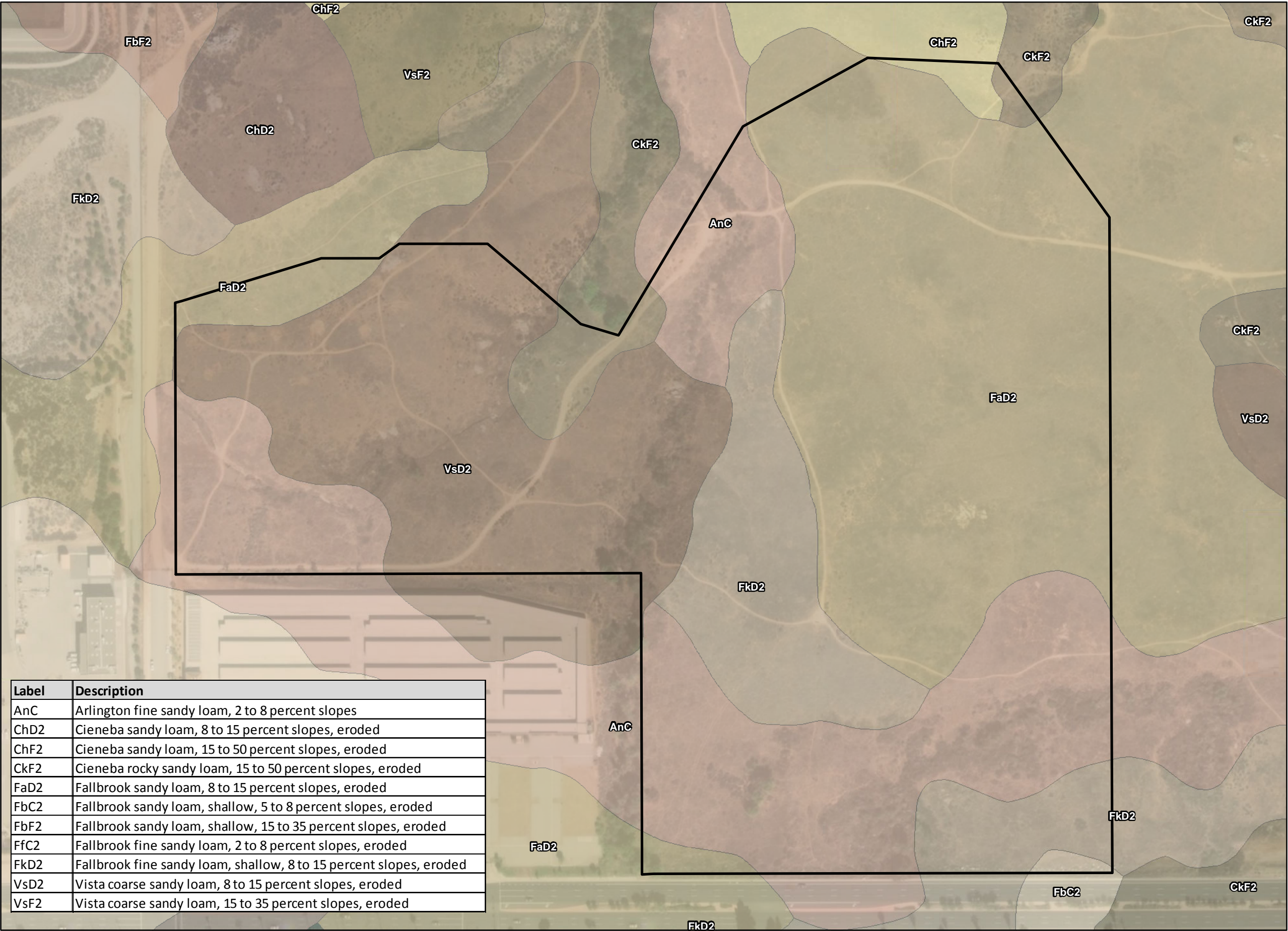
National List of Hydric Soils (USDA, 2018b). The study area crosses seven different soil series (Figure 3) including:

- Arlington fine sandy loam (AnC) – This well-drained soil occurs on alluvial fans and terraces with 2 to 8 percent slopes. It is composed of fine sandy loam and the parent material is composed of alluvium dominantly from granitic rocks.
- Cieneba sandy loam, eroded (ChF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of sandy loam on the surface and the parent material is composed of coarse grained igneous rock.
- Cieneba rocky sandy loam, eroded (CkF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of rocky sandy loam on the surface and the parent material is composed of coarse grained igneous rock.
- Fallbrook sandy loam, eroded (FaD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook sandy loam, shallow, eroded (FbC2) – This well-drained soil occurs on uplands with 5 to 8 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook fine sandy loam, shallow, eroded (FkD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of fine sandy loam and developed on granodiorite and tonalite.
- Vista coarse sandy loam, eroded (VsD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of coarse sandy loam and developed on weathered granite and granodiorite.

4.5 National Wetlands Inventory

The United States Fish and Wildlife Service (USFWS) is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetlands Inventory (NWI) to show wetlands and deepwater habitat. This geospatial information is used by Federal, State, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE.

The NWI Mapper (USFWS, 2018) was accessed online to review mapped wetlands within the project study area. No NWI wetlands were identified within the study area. The nearest NWI wetland is located approximately 1/4-mile northeast of the study area within Sycamore Canyon Creek. It is classified as Riverine, Intermittent, Streambed, Intermittently Flooded/Temporary (Cowardin, et. al., 1979).



Label	Description
AnC	Arlington fine sandy loam, 2 to 8 percent slopes
ChD2	Cieneba sandy loam, 8 to 15 percent slopes, eroded
ChF2	Cieneba sandy loam, 15 to 50 percent slopes, eroded
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
FaD2	Fallbrook sandy loam, 8 to 15 percent slopes, eroded
FbC2	Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
FbF2	Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded
FfC2	Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded
FkD2	Fallbrook fine sandy loam, shallow, 8 to 15 percent slopes, eroded
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded
VsF2	Vista coarse sandy loam, 15 to 35 percent slopes, eroded

 Project Boundary



1 inch = 200 feet
0 200 Feet

FIGURE 4
Soils
Sycamore Hills Distribution Center
Riverside, CA



5.0 RESULTS

The study area contains two jurisdictional drainages identified as Drainage A and Drainage B and a riparian area identified as Area C. The Jurisdictional Delineation Map (Figure 5) identifies all on-site jurisdictional drainages and includes the photo point locations and direction the photo was taken. Table 1 includes a list of jurisdictional areas identified in the project area, their jurisdictional status and area of jurisdiction, Cowardin classification (Cowardin et. al., 1979), and length of waterway within the project study area.

The USACE, in combination with the Environmental Protection Agency (EPA), when necessary, reserves the ultimate authority in making the final jurisdictional determination of WUS and the RWQCB reserves the ultimate authority in making the final jurisdictional determination of WSC. Additionally, CDFW has ultimate discretion in the determination of their jurisdiction.

Table 1.
Summary of Jurisdictional Areas

Drainage ID	Non-Wetland WUS, WSC (acres)	CDFW Jurisdiction (acres)	Length (feet)	Latitude/ Longitude	Cowardin Class	Class of Aquatic Resource
A	0.08	0.35	1,183	33.91902/-117.31228	R4SBW	non-section 10-non wetland
B	0.11	1.36	918	33.91961/-117.31018	R4SBW	non-section 10-non wetland
Area C	0	.45	n/a	33.91740/-117.30845	n/a	non-section 10-non wetland
Total	0.19	5.16	2,101	n/a	n/a	n/a

WUS – Waters of the United States WSC – Waters of the State

CDFW – California Department of Fish and Wildlife

R4SBW – Riverine, Intermittent, Streambed, Intermittently Flooded/Temporary based on Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al., 1979).

5.1 Drainage A

Drainage A is shown on Figure 5 and in Photos 1 through 3. Drainage A enters the study area near the northern portion of the western boundary and flows for approximately 1,183 feet before exiting the site near the middle of the northern boundary. USACE jurisdiction averaged 3 feet wide based on OHWM limits which included a break in bank slope and change in substrate. CDFW jurisdiction ranged from 3 feet wide based on the bankfull width in the upland vegetated portions of the drainage to 65 feet wide based on the extent of riparian vegetation. The banks of Drainage A ranged from vertically-incised to steeply-sloping with depths averaging 6 inches to 1 foot. Drainage A contained sparsely vegetated sections and areas of dense riparian vegetation. The sparsely vegetated portions of the streambed of Drainage A were dominated by short-pod mustard, western marsh cudweed (*Gnaphalium palustre*), and pygmy-weed (*Crassula connata*).

The patches of riparian vegetation were dominated by mulefat, willow baccharis (*Baccharis salicina*), Goodding's black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*) and blue elderberry (*Sambucus nigra* subsp. *caerulea*).

The presence of USACE wetlands was investigated by recording the soil and hydrology characteristics and vegetation at a sampling point at the downstream end of Drainage A. The sampling point location is shown on Figure 5 and the Wetland Determination Data Form is included in Appendix B. Sampling point 1 exhibited hydrophytic vegetation but lacked hydric soils and wetland hydrology, and is therefore not defined as a wetland.

5.2 Drainage B

Drainage B is shown on Figure 5 and in Photos 4 through 7. Drainage B enters the study area near the middle of the southern boundary and flows for approximately 981 feet before exiting the site near the middle of the northern boundary. USACE jurisdiction averaged 5 feet wide based on OHWM limits which included the destruction of terrestrial vegetation. CDFW jurisdiction ranged from 30 to 100 feet wide based on the extent of riparian vegetation. The banks of Drainage B ranged from gently sloping to vertically incised with depths averaging 1 to 2 feet.

Drainage B contained dense riparian vegetation throughout the entire on-site extent. The canopy layer was dominated by Fremont cottonwood (*Populus fremontii* subsp. *fremontii*,) and red willow. The understory was dominated by mulefat, willow baccharis, hoary nettle (*Urtica dioica* subsp. *holosericea*), saltgrass (*Distichlis spicata*), and emergent grasses.

The presence of USACE wetlands was investigated by recording the soil and hydrology characteristics and vegetation at a sampling point at the downstream end of Drainage B. The sampling point location is shown on Figure 5 and the Wetland Determination Data Form is included in Appendix A. Sampling point 2 exhibited hydrophytic vegetation but lacked hydric soils and wetland hydrology and is therefore not defined as a wetland.

5.3 Area C

Area C is shown on Figure 5 and in Photos 8 through 10. Area C contains riparian dominated habitat but does not exhibit a channel or other signs of confined water flow. It is located in the southeast portion of the study area. There is no USACE jurisdiction associated with Area C due to a lack of an OHWM. CDFW jurisdiction totaled 3.45 acres based on the extent of riparian vegetation. Area C contained dense riparian vegetation dominated by mulefat, hoary nettle, willow baccharis, branching phacelia (*Phacelia ramosissima*), and Goodding's black willow.

The presence of USACE wetlands was investigated by recording the soil and hydrology characteristics and vegetation at a sampling point within the eastern portion of Area C. The sampling point location is shown on Figure 5 and the Wetland Determination Data Form is included in Appendix A. Sampling point 3 exhibited hydrophytic vegetation but lacked hydric soils and wetland hydrology.

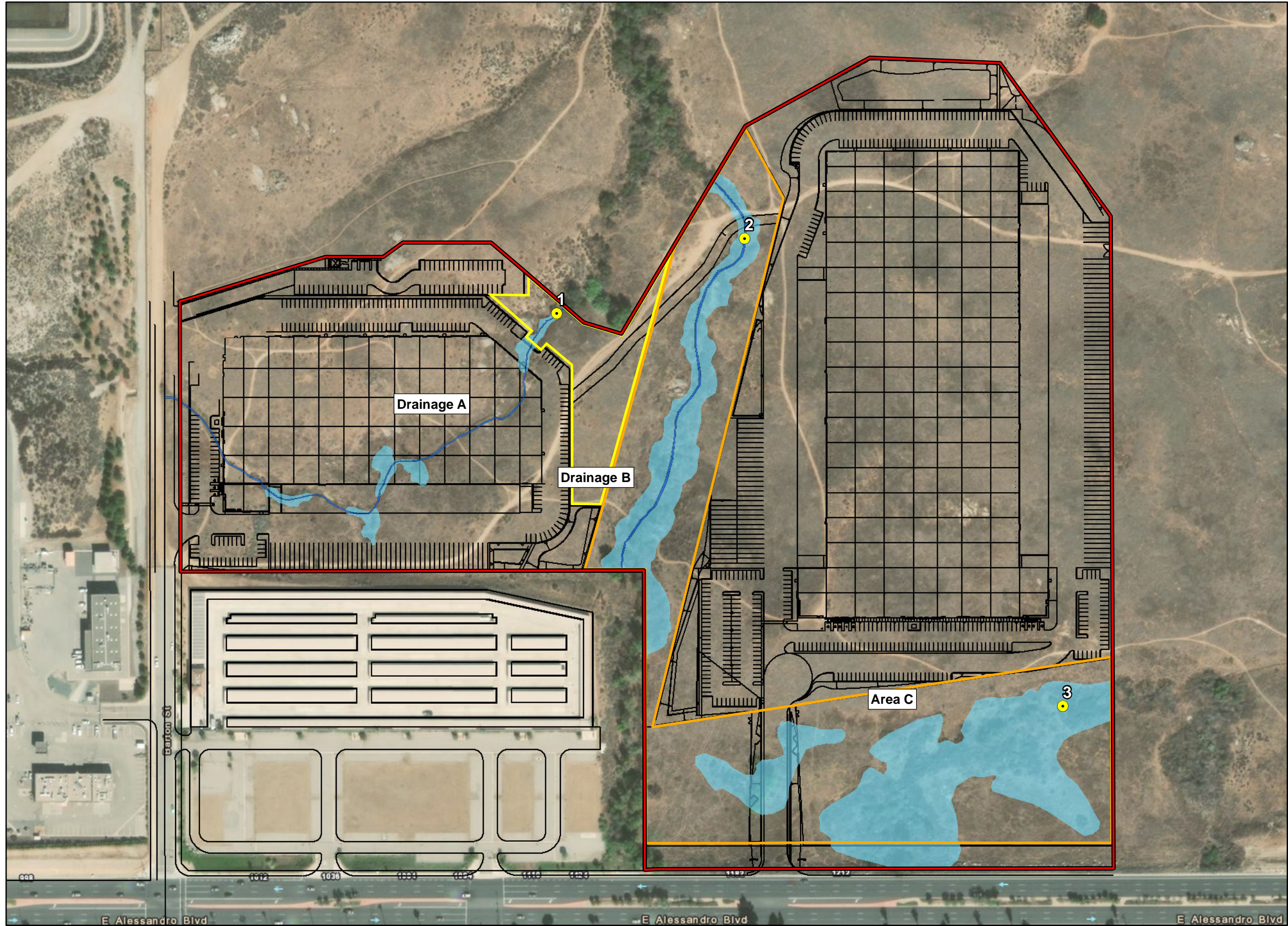
5.4 Jurisdictional Determination

The findings of the previous 2018 report were verified in 2019. Drainages A and B are ephemeral and likely flow for less than 3 months per year and would therefore be classified as non-RPWs by the USACE. The on-site drainages flow into an RPW, the Santa Ana River 9.9 miles downstream of the study area; and a TNW, the Pacific Ocean, approximately 56 river miles downstream of the study area.

The on-site drainages have a surface water connection to a TNW, and therefore would be considered jurisdictional WUS based on SWANCC. Due to the proximity of the on-site drainages to the Pacific Ocean, it is likely that the USACE would consider it to have a “significant nexus” with a TNW and be considered a jurisdictional WUS based on Rapanos.

The USACE may determine that due to the ephemeral nature of the on-site drainages, they may not be considered jurisdictional based on the 2020 Clean Navigable Waters Rule.

The USACE is ultimately responsible for jurisdictional determinations, and this report has been prepared to provide the necessary information to assist the USACE with that determination.



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- Sampling Point
- ▭ Project Boundary
- Project Details
- ▭ Additional Restricted Boundary
- ▭ Existing Restricted Boundary
- Jurisdictional Areas**
- ▭ CDFW
- ▭ WUS



1 inch = 200 feet
0 200 Feet

FIGURE 5
Drainages
Sycamore Hills Distribution Center
Riverside, CA

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar
Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the
GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors

6.0 IMPACTS TO JURISDICTIONAL AREAS

The proposed development plan (Appendix B) was overlaid on the jurisdictional delineation boundary using GIS to determine the extent of impacts to jurisdictional areas (Figure 6). The buildings, parking lots, and driveway were considered permanent impacts. Temporary impacts were assessed for the temporary construction crossing at the downstream end of Drainage B. Table 2 portrays the proposed impacts to jurisdictional waters in the on-site drainages. Permanent impacts to Drainage A are for all but 100 feet of this drainage; the 100 feet on the property to the northeast of the building site will not be impacted. There will no permanent impacts to Drainage B. Permanent impact to Area C will total 0.25 acres.

Table 2.
Impacts to Jurisdictional Areas

Drainage	Temporary Impacts to non-wetland WUS	Permanent Impacts to non-wetland WUS	Temporary Impacts to CDFW Jurisdiction	Permanent Impacts to CDFW Jurisdiction
A	0	0.07 acre 1,044 linear feet	0	0.23acre 1,044 linear feet
B	0.002 acre 21 linear feet	0	0.017 acre	0
Area C	0	0	0	0.57 acres 258 linear feet
Total	0.002 acre 21 linear feet	0.08 acre 1,302 linear feet	0.017 acre	0.8 acre 1,044 linear feet

6.1 Permitting Requirements

The proposed project requires temporary and permanent impacts to a jurisdictional drainage and therefore, authorizations from the USACE, RWQCB, and CDFW may be required as described below.

6.1.1 U.S. Army Corps of Engineers

The two most common types of permits issued by USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into WUS are: a nationwide permit (NWP) or an individual permit (IP).

NWPs are general permits for specific categories of activities that result in minimal impacts to aquatic resources.

NWP 39 can be used for commercial and institutional developments. This NWP authorizes the construction or expansion of commercial and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds and playing fields. The discharge must not cause the loss of greater than 1/2-acre of non-tidal WUS, including the loss of no more than 300 linear feet of stream bed, unless for

intermittent and ephemeral stream beds the district engineer waives the 300-linear foot limit by making a written determination concluding that the discharge will result in minimal adverse effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. If the USACE asserts jurisdiction over Drainage A, the proposed project would likely qualify under NWP 39, if the 300-foot limit is waived.

For project impacts that do not meet the provisions of an existing NWP, the USACE would require an IP. An IP requires detailed analysis and compliance with the USACE formal review process. This process includes preparation of an alternatives analysis as required by EPA Section 404(b)(1) Guidelines and the National Environmental Policy Act (NEPA), and requires compliance with NEPA's environmental review process. This process provides opportunities for public notice and comment.

The USACE must comply with the federal Endangered Species Act and Section 106 of the National Historic Preservation Act when issuing a NWP or IP.

6.1.2 Regional Water Quality Control Board

The project area is within the jurisdiction of the Santa Ana RWQCB (Region 8). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards.

The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the properties of the waterway.

The project proponent would need to obtain a Water Quality Certification. In addition to the formal application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation must be included with the application.

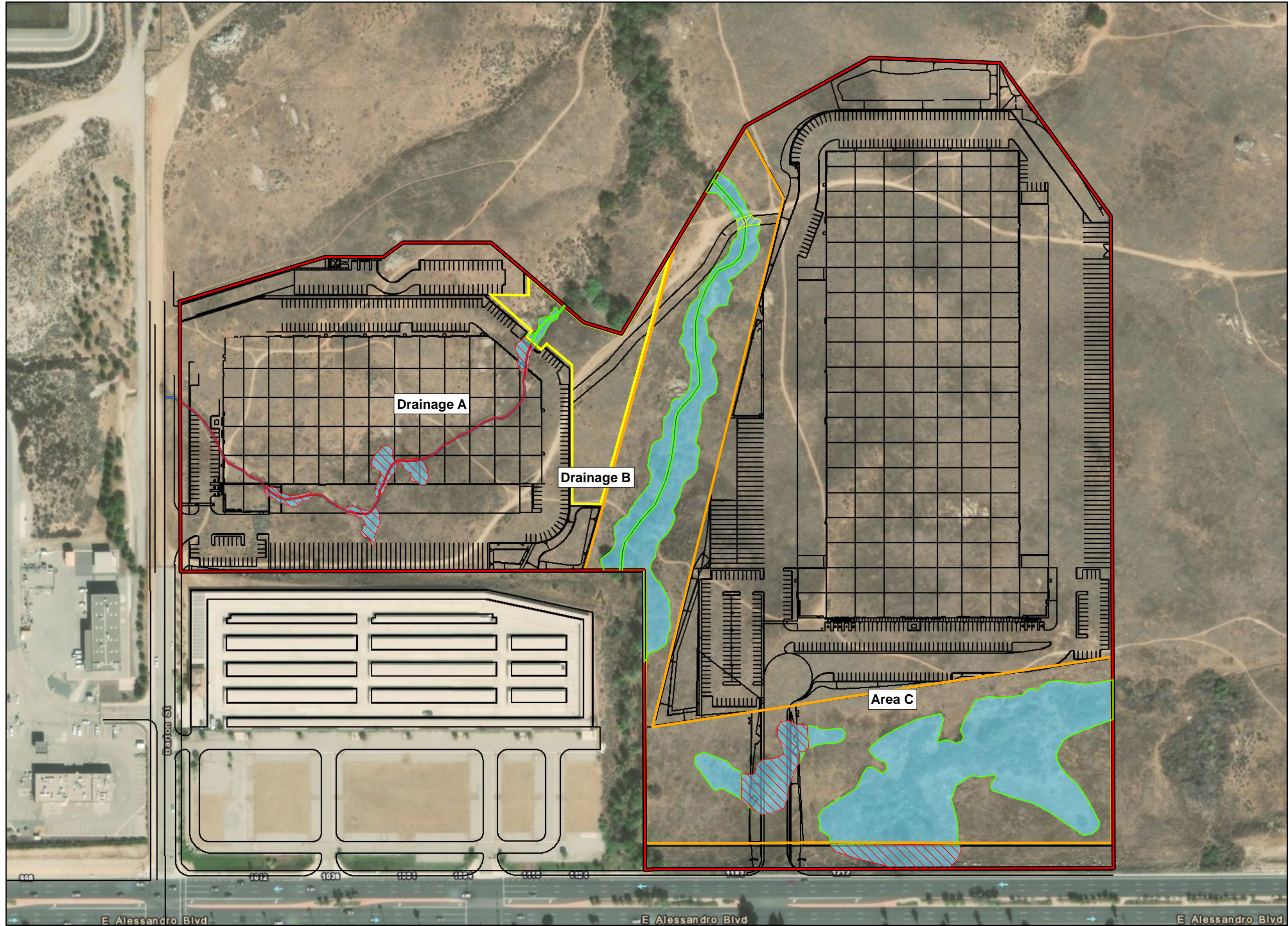
6.1.3 California Department of Fish and Wildlife

A 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. Therefore, the project proponent would need to obtain a Streambed Alteration Agreement. In addition to the formal application materials and fee (based on cost of the project), a copy of the appropriate CEQA documentation must be included with the application.

6.1.4 Western Riverside County MSHCP

Preparation of a DBESP report is required under the MSHCP for projects that involve impacts to riparian/riverine resources and/or vernal pools. The purpose of the DBESP report is to ensure replacement of any lost functions and values of habitat as it relates to covered species. The

project proponent would need to prepare a DBESP since the proposed project will impact riparian/riverine areas.



- Project Boundary
- Additional Restricted Boundary
- Existing Restricted Boundary
- Jurisdictional Areas**
 - CDFW
 - WUS
 - No Impact
 - Temporary Impact
 - Permanent Impact

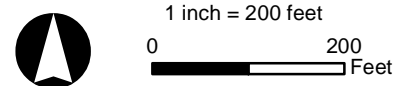


FIGURE 6
Impact Areas
Sycamore Hills Distribution Center
Riverside, CA

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8.0 PHOTOGRAPHS



Photo 1 – View of Drainage A facing downstream near where it enters the site through a 4-foot concrete pipe.



Photo 2 - View of Drainage A facing upstream near the middle of the on-site extent.
The Ordinary High-Water Mark width is approximately 3 feet.



Photo 3 – Downstream-facing perspective of Drainage A near the downstream end.



Photo 4 - View Drainage B facing downstream at the upstream end.



Photo 5 - View of the channel beneath the riparian canopy of Drainage B where the Ordinary High-Water Mark is approximately 5 feet wide.



Photo 6 – Upstream-facing perspective of Drainage B.



Photo 7 - View of Drainage B facing downstream at the downstream end.



Photo 8 - View of riparian Area C that did not exhibit an Ordinary High Water Mark.



Photo 9 - View of isolated riparian habitat near where a permanent access road will be constructed.



Photo 10 - View of riparian habitat within Area C that did not exhibit an Ordinary High Water Mark.

APPENDIX A

WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Sycamore Hills Distribution Center City/County: Riverside/Riverside County Sampling Date: 11/14/2019

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

Investigator(s): Dale Hameister Section, Township, Range: Sec 9, T 3 S, R 4 W

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

Subregion (LRR): C Lat: 33.91990 Long: -117.31116 Datum: NAD 83

Soil Map Unit Name: Cieneba rocky sandy loam, 5-8 yr eroded NWI classification: none

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

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

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Areas within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Sambucus nigra</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>20</u> x 4 = <u>80</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>90</u> (A) <u>405</u> (B) Prevalence Index = B/A = <u>4.05</u>
Sapling/Shrub Stratum				
1. <u>Baccharis salicifolia</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Herb Stratum				Hydrophytic Vegetation Indicators: X <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Phacelia ramosissima</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Bromus rubens</u>	<u>10</u>	<u> </u>	<u>UPL</u>	
3. <u>Rumex crispus</u>	<u>5</u>	<u> </u>	<u>FAC</u>	
4. <u>Cirsium vulgare</u>	<u>5</u>	<u> </u>	<u>FACU</u>	
Total Cover: <u> </u>				
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust <u> </u>				

Remarks:

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18	7.5 YR 3/4						Snd Lm	Sandy Loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils ³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
 No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____	
(includes capillary fringe)			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 No wetland hydrology indicators present

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Sycamore Hills Distribution Center City/County: Riverside/Riverside County Sampling Date: 11/14/2019

Applicant/Owner: Caltrans State: CA Sampling Point: 2

Investigator(s): Dale Hameister Section, Township, Range: Sec 9, T 3 S, R 4 W

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

Subregion (LRR): C Lat: 33.92034 Long: -117.30988 Datum: NAD 83

Soil Map Unit Name: Arlington Fine Sandy Loam NWI classification: none

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

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

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Areas within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
Total Cover: <u> </u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u> </u> x 4 = <u> </u> UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>90</u> (A) <u>305</u> (B) Prevalence Index = B/A = <u>3.05</u>
Sapling/Shrub Stratum				
1. <u>Baccharis salicifolia</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
Total Cover: <u> </u>				
Herb Stratum				
1. <u>Bromus rubens</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>	
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
Total Cover: <u> </u>				
Woody Vine Stratum				
1. <u> </u>				
2. <u> </u>				
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum <u>25</u> % Cover of Biotic Crust <u> </u>				

Hydrophytic Vegetation Indicators:
 X Dominance Test is >50%
 Prevalence Index is ≤3.0
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No

Remarks:

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18	7.5 YR 3/4						Snd Lm	Sandy Loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils ³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X _____

Remarks:
 No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____ No <u>X</u> _____	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u> _____
Water Table Present?	Yes _____ No <u>X</u> _____	Depth (inches): _____	
Saturation Present?	Yes _____ No <u>X</u> _____	Depth (inches): _____	
(includes capillary fringe)			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 No wetland hydrology indicators present

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Sycamore Hills Distribution Center City/County: Riverside/Riverside County Sampling Date: 11/14/2019

Applicant/Owner: Caltrans State: CA Sampling Point: 3

Investigator(s): Dale Hameister Section, Township, Range: Sec 9, T 3 S, R 4 W

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

Subregion (LRR): C Lat: 33.91769 Long: -117.30767 Datum: NAD 83

Soil Map Unit Name: Arlington Fine Sandy Loam NWI classification: none

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

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

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Areas within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Salix goodingii</u>	<u>75</u>	<u>Yes</u>	<u>FACW</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u>60</u> x 2 = <u>150</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u>95</u> (A) <u>210</u> (B) Prevalence Index = B/A = <u>2.2</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Sapling/Shrub Stratum				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Baccharis salicifolia</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Herb Stratum				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
Woody Vine Stratum				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>95</u>				
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				

Remarks:

Hydrophylic vegetation present

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
18	7.5 YR 3/4						Snd Lm	Sandy Loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

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

Indicators for Problematic Hydric Soils ³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes _____ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

No wetland hydrology indicators present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sycamore Hills Dist. Cent. City/County: City of Riverside Sampling Date: 1-28-2014
 Applicant/Owner: Inland Investments, Inc State: CA Sampling Point: 1
 Investigator(s): Scot Chandler Section, Township, Range: Sec 9, T3S, R4W
 Landform (hillslope, terrace, etc.): Channel bottom Local relief (concave, convex, none): none Slope (%): 41%
 Subregion (LRR): C Lat: 33.91990 Long: -117.31116 Datum: NAD 83
 Soil Map Unit Name: Cienega rocky sandy loam, S-89, eroded NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Sambucus Nigra</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Baccharis Salicifolia</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species <u> </u> x 1 = <u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u> x 2 = <u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>100</u> x 3 = <u>300</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u> </u> x 4 = <u> </u>
<u> </u> = Total Cover				UPL species <u>20</u> x 5 = <u>100</u>
				Column Totals: <u>120</u> (A) <u>400</u> (B)
				Prevalence Index = B/A = <u>3.33</u>
Herb Stratum (Plot size: <u>10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Phacelia ramosissima</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Prevalence Index is ≤3.0 ¹
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>120</u> = Total Cover				
Woody Vine Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>

Remarks: Hydrophytic veg present.

Sampling Point: _____

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No wetland hydrology indicators present.			

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sycamore Hills Dist. Cent. City/County: City of Riverside Sampling Date: 1-28-2014
 Applicant/Owner: Inland Investments Inc. State: CA Sampling Point: 2
 Investigator(s): Scott Chandler Section, Township, Range: Sec 9, T 3S, R 4W
 Landform (hillslope, terrace, etc.): Channel bottom Local relief (concave, convex, none): none Slope (%): <1%
 Subregion (LRR): C Lat: 33.92034 Long: -117.30988 Datum: NAD83
 Soil Map Unit Name: Arlington Fine Sandy loam, 2-8% slopes NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>None</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
= Total Cover				Prevalence Index worksheet: Total % Cover of: <u>60</u> Multiply by: OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u>3</u>
Sapling/Shrub Stratum (Plot size: <u>20'</u>) 1. <u>Baccharis salicifolia</u> <u>60</u> Yes <u>FAC</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
= Total Cover				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: <u> </u>) 1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
= Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u> </u>) 1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
= Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				

Remarks: Hydrophytic vegetation present.

SOIL

Sampling Point: _____

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

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

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

Indicators for Problematic Hydric Soils³:

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

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No ☒

Remarks:

marks: No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes No X Depth (inches):

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

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No wetland hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sycamore Hills Pst. Cent. City/County: City of Riverside Sampling Date: 1-28-2014
 Applicant/Owner: Inland Investments Inc. State: _____ Sampling Point: 3
 Investigator(s): Scot Chandler Section, Township, Range: Sec 9, T3S, R4W
 Landform (hillslope, terrace, etc.): Riparian bottomland Local relief (concave, convex, none): none Slope (%): 21%
 Subregion (LRR): C Lat: 33.91769 Long: -117.30769 Datum: NAD83
 Soil Map Unit Name: Arlington fine sandy loam, 2-8% slopes NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

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

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix gooddingii</u>	<u>75</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Baccharis salicifolia</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species <u>75</u> x 2 = <u>150</u>
4. _____	_____	_____	_____	FAC species <u>20</u> x 3 = <u>60</u>
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: <u>95</u> (A) <u>210</u> (B)
				Prevalence Index = B/A = <u>2.2</u>
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	<u>X</u> Prevalence Index is ≤3.0 ¹
3. _____	_____	_____	_____	____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	____ Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>95</u> = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
Remarks: <u>Hydrophytic vegetation present</u>				

SOIL

Sampling Point:

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology indicators present.		

APPENDIX E

SYCAMORE HILLS DISTRIBUTION CENTER PROJECT, FOCUSED SURVEYS FOR THE SOUTHWESTERN WILLOW FLYCATCHER AND LEAST BELL'S VIREO



**Sycamore Hills Distribution Center Project
Focused Surveys for the
Southwestern Willow Flycatcher and
Least Bell's Vireo**

**All or Parts of Assessor's Parcel Numbers:
263-060-022-7, 263-060-024-9, 263-060-026-1**

**Submitted to:
Albert A. Webb Associates
3788 McCray Street
Riverside, California 92506**

**Attn: Sonya Hooker
(951) 686-1070**

**Submitted by:
AMEC Environment & Infrastructure, Inc.
3120 Chicago Avenue, Suite 110
Riverside, California 92507**

Tel: (951) 369-8060

**Principal Investigator and Report Preparer
John F. Green
Senior Wildlife Biologist**

Fieldwork conducted: 22 April, 2, 12, & 22 May, 2, 12, & 30 June, and 11 July 2014

15 July 2014

AMEC Project No. 1355400566

EXECUTIVE SUMMARY

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1.0 INTRODUCTION

AMEC Environment & Infrastructure, Inc. (AMEC) was contracted by Albert A. Webb Associates to conduct focused surveys for the Least Bell's Vireo (*Vireo belli pusillus*) and Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Habitat for these species had been identified on a proposed project site (AMEC 2014). This report presents the findings of the 2014 breeding season focused surveys.

1.1 Project Location and Site Description

The proposed project involves the development of two warehouse buildings and associated parking spaces and water quality features. The project is located in the City of Riverside, Riverside County, California (see Figure 1). It is specifically located in the southwest quarter of Section 9 of Township 3 South, Range 4 West, as shown on the United States Geological Survey (USGS) 7.5 minute *Riverside East, Ca.* quadrangle (see Figure 3). Site elevation ranges from approximately 1,575 to 1,610 feet above mean sea level.

The 47.85-acre site is roughly bounded by Barton Street to the west, Sycamore Canyon Wilderness Park to the north and east, and Alessandro Boulevard to the south. The site occurs on Assessor's Parcel Numbers: 263-060-022-7, 263-060-024-9, and 263-060-026-1. It is currently undeveloped with no existing structures. It is dominated by disturbed non-native grassland with a few ephemeral drainages, some with riparian vegetation, transecting the site. The study area appears to be regularly mowed for fire control purposes. Surrounding land uses include preserved open space to the north as part of Sycamore Canyon Wilderness Park, a municipal water treatment plant and single-family residential to the west, single-family residential to the south with a strip of retail along the south side of Alessandro Boulevard, a Storage Facility on the southwest, and undeveloped land to the east.

1.2 Species Information

1.2.1 Least Bell's Vireo

Least Bell's Vireo (LBVI) is a small, migratory, insectivorous bird which occurs in willow and cottonwood dominated riparian habitats. This bird can be secretive within its densely vegetated habitat, but males are easy to detect on the breeding grounds due to their conspicuous, diagnostic, and frequently given song. Nesting habitat of this subspecies is restricted to willow, cottonwood, and/or mulefat dominated riparian scrub along permanent or nearly permanent streams (Grinnell and Miller 1944, Goldwasser 1978, Franzreb 1987, Garrett and Dunn 1981).

LBVIs were formerly widespread and common throughout low-lying riparian habitats of central and southern California, but are now restricted primarily to a limited, but increasing, number of locations in southern California. Habitat reduction has contributed to this species' significant population declines. Nest parasitism by Brown-headed Cowbirds (*Molothrus ater*) has also seriously impacted reproductive success by LBVI, as well as many other species which build cup nests (Goldwasser 1978). Populations are recovering as a result of habitat restoration and cowbird control efforts. LBVI is listed as endangered by the State of California and the United

States Fish and Wildlife Service (USFWS). A final determination of critical habitat was made in 1994 (USFWS 1994).

1.2.2 Southwestern Willow Flycatcher

The Southwestern Willow Flycatcher (SWFL) is a small, brownish-olive and whitish flycatcher that was formerly considered a common summer resident in southern California's lowland willow thickets and in low elevation mountain canyons (Garrett and Dunn 1981). Following the large-scale invasion of southern California by Brown-headed Cowbirds in the 1920s, along with loss of willow riparian habitat, this subspecies was nearly extirpated from southern California. The Willow Flycatcher (all subspecies) was listed by the State of California as endangered in 1990. The subspecies *E. t. extimus* (Southwestern Willow Flycatcher) is listed as endangered by the USFWS. A final determination of critical habitat was made in October 2005 (USFWS 2005), and a revision was finalized in January 2013 (USFWS 2013).

Some of the places where populations have been documented include the Santa Margarita and San Luis Rey rivers in San Diego County, the San Bernardino Mountains and along the Mojave River in San Bernardino County, the Santa Ynez River in Santa Barbara County, the Santa Clara River in Los Angeles and Ventura counties, the South Fork of the Kern River in Kern County (Unitt 1987, Marshall 2000), and San Timoteo Creek in western Riverside County (R. McKernan, San Bernardino County Museum, pers. comm.). San Timoteo Creek is the nearest breeding location to the project site. This subspecies also persists in the Lower Colorado River Valley (Marshall 2000, R. McKernan, San Bernardino County Museum, pers. comm.). Unlike LBVIs, SWFL populations do not appear to have gained any significant benefit from habitat restoration and cowbird control efforts.

The SWFL breeds in dense riparian habitats near surface water or saturated soil. Plant composition and habitat structure can vary greatly depending on the site, but willows often make up much of the understory. Populations along the Colorado River are known to use thickets dominated by both native and nonnative plants (especially Salt-Cedar [*Tamarix* spp.]). Dense patches of understory vegetation are a critical component of occupied habitat (Sogge *et al.* 2010).

2.0 METHODS

2.1 Survey Methods

In accordance with the currently accepted survey protocol for the Least Bell's Vireo (USFWS 2001), the site was surveyed eight times by AMEC Earth and Environmental (AMEC) biologists. The LBVI protocol requires surveys to be conducted at least 10 days apart from 10 April to 31 July. The SWFL protocol requires five surveys, and that the first survey be performed from 15 May to 31 May, the next two surveys from 1 June to 24 June, and the final two surveys between 25 June and 17 July (Sogge *et al.* 2010) with each visit at least five days apart. The SWFL surveys were performed concurrently with LBVI surveys.

Surveys consisted of slowly moving through the habitat (see Figure 2) while listening for the songs and calls of the target species. During the SWFL surveys, recordings of their vocalizations were broadcast every 20-30 meters, as required by protocol. All detections of LBVIs and Willow Flycatchers were recorded with handheld Global Positioning System (GPS) units. All bird species detected during the surveys were recorded in field notes.

Surveys were performed by Stephen J. Myers (federal Endangered Species Permit TE804203-9) and John F. Green (TE054011-5). Table 1 summarizes the surveys, including survey dates, times, and weather conditions, and Map 1 shows the survey area.

Table 1. LBVI/SWFL Survey Data

Date	Observer	Target Species	Time (PST)	Temp. (°F)	Wind (mph)	Sky (% cover)
22 April	Stephen J. Myers	LBVI	0635-1000	55-62	0-5	100
2 May	John F. Green	LBVI	0605-0835	68-83	0-2	1
12 May	Stephen J. Myers	LBVI	0605-0910	68-81	0-4	0
22 May	John F. Green	LBVI, SWFL	0600-0835	61-60	1	100
2 June	John F. Green	LBVI, SWFL	0515-0740	65-71	1	25-40
12 June	John F. Green	LBVI, SWFL	0510-0725	59-64	1	100-0
30 June	Stephen J. Myers	LBVI, SWFL	0555-0820	64-72	0-3	100-50
11 July	Stephen J. Myers	LBVI, SWFL	0515-0755	66-75	0-2	0

3.0 RESULTS

3.1 Habitat Description

The site is largely devegetated resulting from past disturbances. For the purposes of this study, however, the majority of extant native vegetation was concentrated within onsite drainages and riparian associated areas. The riparian habitat areas were dominated by willows (*Salix* sp.), Mulefat (*Baccharis salicifolia*), and Fremont Cottonwood (*Populus fremontii*). Suitable habitat for the LBVI and SWFL is intermittent in the onsite and adjacent drainages. No surface water or saturation was visible during the survey season, but could have been present in one or two densely vegetated patches.

3.2 Critical Habitat

The project area is not within designated Critical Habitat for either the Least Bell's Vireo or Southwestern Willow Flycatcher.

3.3 Survey Results

Sixty-one (61) bird species were detected during the focused surveys (see Appendix B). Among the most frequently detected species were birds that are typical of lowland riparian habitats and open habitats in southern California, such as Mourning Dove (*Zenaida macroura*), Nuttall's Woodpecker (*Picoides nuttallii*), Black Phoebe (*Sayornis nigricans*), Western Kingbird (*Tyrannus verticalis*), Bushtit (*Psaltirparus minimus*), Bewick's Wren (*Thryomanes bewickii*), Song Sparrow (*Melospiza melodia*), and Lesser Goldfinch (*Spinus psaltria*). Three reptile and seven mammal species were also detected.

3.3.1 Least Bell's Vireo

Least Bell's Vireos were detected early in the survey period, with three singing males present on 22 April (See Figure 2). By 2 May, only one singing male LBVI remained at the northernmost point. No LBVIs were detected on any subsequent survey. The reason for their departure is unknown, but dry conditions onsite may have been a factor (no visible surface water was present during the survey period). There are additional riparian habitat patches in the area (but off site) that these LBVIs could have moved to.

3.3.2 Southwestern Willow Flycatcher

No Southwestern Willow Flycatchers were detected within the survey area. Willow Flycatchers were detected during two surveys: one on 22 May and two on 2 June (see Figures 2 and 3). These occurrence dates are within the normal period of spring migration of the species in southern California, and no Willow Flycatchers were found on surveys after the end of migration. Therefore, AMEC concludes that all of these birds were migrants, likely of more northerly subspecies (*E.t. adastus* or *E.t. brewsteri*), and not Southwestern Willow Flycatchers (subspecies *E.t. extimus*).

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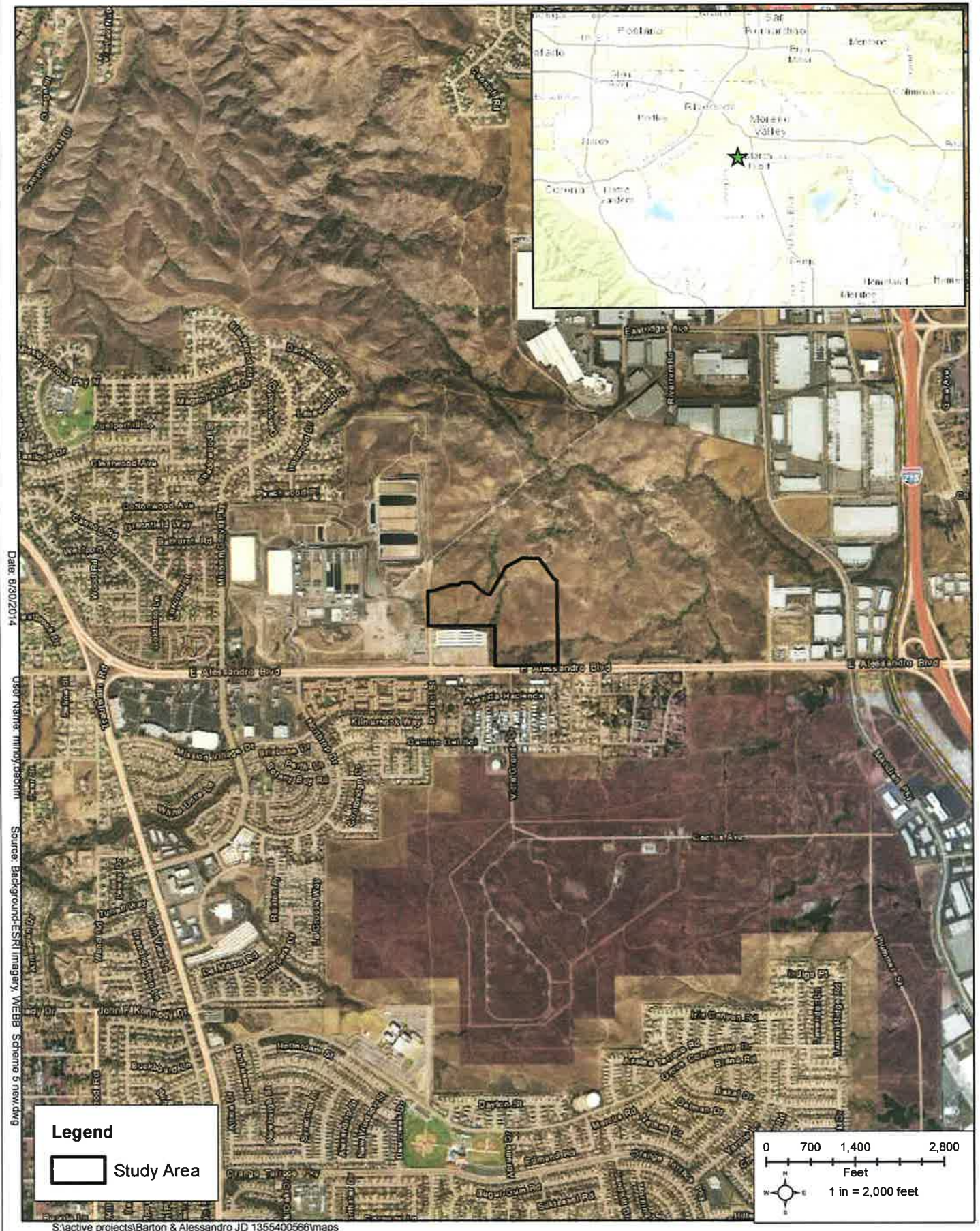
APPENDIX A

MAP FIGURES

Date: 8/30/2014

User Name: timothy.bonini

Source: Background: ESRI Imagery, WEBB, Scheme 5 new.dwg



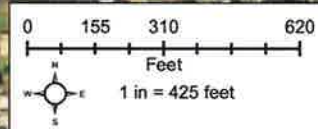
Date: 6/30/2014

User Name: mmoy0808m

Source: Background: ESRI Imagery, WEBB Scheme: newdwg

Legend

- Site Boundary
- 500' Survey Buffer
- Least Bell's Vireos
- Willow Flycatchers



S:\active projects\Barton & Alessandro JD 1355400566\maps



Riparian Birds Survey Results Sycamore Hills Distribution Center Project

FIGURE

2

APPENDIX B

VERTEBRATE ANIMALS

APPENDIX B

VERTEBRATE ANIMALS SPECIES LIST

This list reports only animals or their sign observed during AMEC's site visits. Other species may have been overlooked or undetectable due to their nocturnal and/or subterranean activity patterns. Nomenclature and taxonomy for fauna observed generally follows the American Ornithologists' Union Checklist and its supplements (2013) for avifauna, California Department of Fish and Game (CDFG 2008) for herpetofauna and mammals.

REPTILIA

Phrynosomatidae

Uta stansburiana

Sceloporus occidentalis

Sceloporus orcutti

AVES

Odontophoridae

Callipepla californica

Phalacrocoracidae

Phalacrocorax auritus *

Cathartidae

Cathartes aura

Accipitridae

Accipiter cooperii *

Buteo lineatus

Buteo jamaicensis

Charadriidae

Charadrius vociferus

Columbidae

Columba livia

Streptopelia decaocto

Zenaidura macroura

Cuculidae

Geococcyx californianus

Tytonidae

Tyto alba

Apodidae

Aeronautes saxatalis

Trochilidae

Archilochus alexandri

Calypte anna

Selasphorus rufus or *S. sasin* *

Reptiles

Spiny Lizards and Allies

Common Side-blotched Lizard

Western Fence Lizard

Granite Spiny Lizard

BIRDS

New World Quail

California Quail

Darters and Cormorants

Double-crested Cormorant

New World Vultures

Turkey Vulture

Hawks, Eagles, Harriers, Kites

Cooper's Hawk

Red-shouldered Hawk

Red-Tailed Hawk

Plovers and Lapwings

Killdeer

Pigeons and Doves

Rock Pigeon (nonnative)

Eurasian Collared-Dove (nonnative)

Mourning Dove

Cuckoos and Allies

Greater Roadrunner

Barn Owls

Barn Owl

Swifts

White-throated Swift

Hummingbirds

Black-chinned Hummingbird

Anna's Hummingbird

Rufous or Allen's Hummingbird

Picidae

Picoides nuttallii
Colaptes auratus

Falconidae

Falco sparverius

Tyrannidae

Contopus sordidulus
Empidonax traillii *
Sayornis nigricans
Sayornis saya
Myiarchus cinerascens
Tyrannus vociferans
Tyrannus verticalis

Vireonidae

Vireo bellii pusillus *
Vireo cassinii
Vireo gilvus

Corvidae

Corvus corax
Corvus brachyrhynchos

Alaudidae

Eremophila alpestris actia *

Hirundinidae

Stelgidopteryx serripennis
Petrochelidon pyrrhonota
Hirundo rustica

Aegithalidae

Psaltirparus minimus

Troglodytidae

Thryomanes bewickii

Turdidae

Catharus ustulatus
Catharus guttatus

Mimidae

Toxostoma redivivum
Mimus polyglottos

Sturnidae

Sturnus vulgaris

Parulidae

Setophaga petechia brewsteri *
Setophaga nigrescens
Cardellina pusilla

Woodpeckers and Allies

Nuttall's Woodpecker
Northern Flicker

Falcons and Caracaras

American Kestrel

Flycatchers

Western Wood-Pewee
Willow Flycatcher
Black Phoebe
Say's Phoebe
Ash-throated Flycatcher
Cassin's Kingbird
Western Kingbird

Vireos

Least Bell's Vireo
Cassin's Vireo
Warbling Vireo

Jays, Crows, Ravens, Magpies

Common Raven
American Crow

Larks

California Horned Lark

Swallows

Northern Rough-winged Swallow
Cliff Swallow
Barn Swallow

Long-tailed Tits and Bushtits

Bushtit

Wrens

Bewick's Wren

Thrushes

Swainson's Thrush
Hermit Thrush

Mockingbirds and Thrashers

California Thrasher
Northern Mockingbird

Starlings and Allies

European Starling (nonnative)

Wood-warblers

Yellow Warbler
Black-throated Gray Warbler
Wilson's Warbler

Emberizidae

Pipilo maculatus
Melospiza crissalis
Aimophila ruficeps canescens *
Chondestes grammacus
Melospiza melodia
Zonotrichia leucophrys

Cardinalidae

Passerina caerulea

Icteridae

Agelaius phoeniceus
Sturnella neglecta
Euphagus cyanocephalus
Molothrus ater
Icterus cucullatus

Fringillidae

Haemorhous mexicana
Spinus psaltria
Spinus lawrencei *

Passeridae

Passer domesticus

MAMMALIA

Leporidae

Sylvilagus audubonii
Lepus californicus bennettii *

Sciuridae

Spermophilus beecheyi

Heteromyidae

Dipodomys stephensi *

Muridae

Neotoma sp.

Canidae

Canis latrans

Felidae

Lynx rufus

Emberizids

Spotted Towhee
 California Towhee
 S. California Rufous-crowned Sparrow
 Lark Sparrow
 Song Sparrow
 White-Crowned Sparrow

Cardinals and Allies

Blue Grosbeak

Blackbirds and Allies

Red-winged Blackbird
 Western Meadowlark
 Brewer's Blackbird
 Brown-headed Cowbird
 Hooded Oriole

Finches

House Finch
 Lesser Goldfinch
 Lawrence's Goldfinch

Old World Sparrows

House Sparrow (nonnative)

MAMMALS

Rabbits and Hares

Desert (Audubon's) Cottontail
 San Diego Black-tailed Jackrabbit

Squirrels, Chipmunks, and Marmots

California Ground Squirrel

Pocket Mice and Kangaroo Rats

Stephens' Kangaroo Rat (burrows)

Mice, Rats, and Voles

wood rat (middens)

Foxes, Wolves, and Relatives

Coyote (scat)

Cats

Bobcat (scat)

SYMBOLS AND ABBREVIATIONS:

sp. = Identified only to genus; species unknown plural = spp.
 * = Sensitive species (State or Federally Listed as Threatened or Endangered, or a CDFG Species of Special Concern / Watch List species, or a USFWS Bird of Conservation Concern) (CDFG 2011)

APPENDIX C

SOUTHWESTERN WILLOW FLYCATCHER SURVEY FORM

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 Sycamore Hills Distribution Center State CA County Riverside
 USGS Quad Name Riverside East Elevation 485 (meters)
 Creek, River, Wetland, or Lake Name Unnamed
 Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ☒ No ☐

Survey Coordinates: Start: E 471592 N 3753078 UTM Datum NAD83 (See instructions)
 Stop: E 471306 N 3753578 UTM Zone 11

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 # Observer(s) (Full Name)	Pacific Standard Time 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., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</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.
Survey # 1 Observer(s) John F. Green TE804203-9	Date 22 May Start 0600 Stop 0835 2h, 35m Total hrs	1	0	0	N	Fitz-bews & Brnts	# Birds Sex UTM E UTM N
Survey # 2 Observer(s) Green	Date 2 Jun Start 0515 Stop 0740 2h, 25m Total hrs	2	0	0	N	one silent, one Fitz-bews Not together, one possibly from last visit	# Birds Sex UTM E UTM N
Survey # 3 Observer(s) Green	Date 2 Jun Start 0510 Stop 0725 2h, 15m Total hrs	0	0	0	N	Brown-headed Cowbird present	# Birds Sex UTM E UTM N
Survey # 4 Observer(s) Stephen J. Myers TE054011-5	Date 30 Jun Start 0555 Stop 0820 2h, 25m Total hrs	0	0	0	N	—	# Birds Sex UTM E UTM N
Survey # 5 Observer(s) Myers	Date 11 Jul Start 0515 Stop 0755 2h, 40m Total hrs	0	0	0	N	—	# Birds Sex UTM E UTM 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 12h, 20m.		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.	

Reporting Individual John F. Green Date Report Completed 7-15-14
 US Fish and Wildlife Service Permit # TE054011-5 State Wildlife Agency Permit # SC-001951
Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

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 John. F. Green Phone # 951-369-8860
 Affiliation AMEC E-mail john.f.green@arnec.com
 Site Name Sycamore Hills Distribution Center Date Report Completed 7-15-14

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) Private + edge of Sycamore Canyon City Park
City of Riverside

Length of area surveyed: 1600 (meters)

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) in channel
☐ 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. Populus fremontii,
Salix spp., Baccharis salicifolia

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

APPENDIX D

NOTIFICATION AND CERTIFICATION



U.S. Fish & Wildlife Service
Carlsbad Field Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

28 April 2014

ATTN: Stacey Love

RE: SWFL Survey Notification for Sycamore Hills Distribution Center Project

Dear Stacey:

This letter serves as AMEC Environment and Infrastructure, Inc.'s (AMEC) formal notification of our intent to conduct breeding season focused presence-absence surveys for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*). We anticipate that all surveys will be conducted by the following permitted AMEC biologists: John F. Green (TE054011) and Stephen J. Myers (TE-804203) in accordance with U.S. Fish and Wildlife Service Presence/Absence Survey Guidelines.

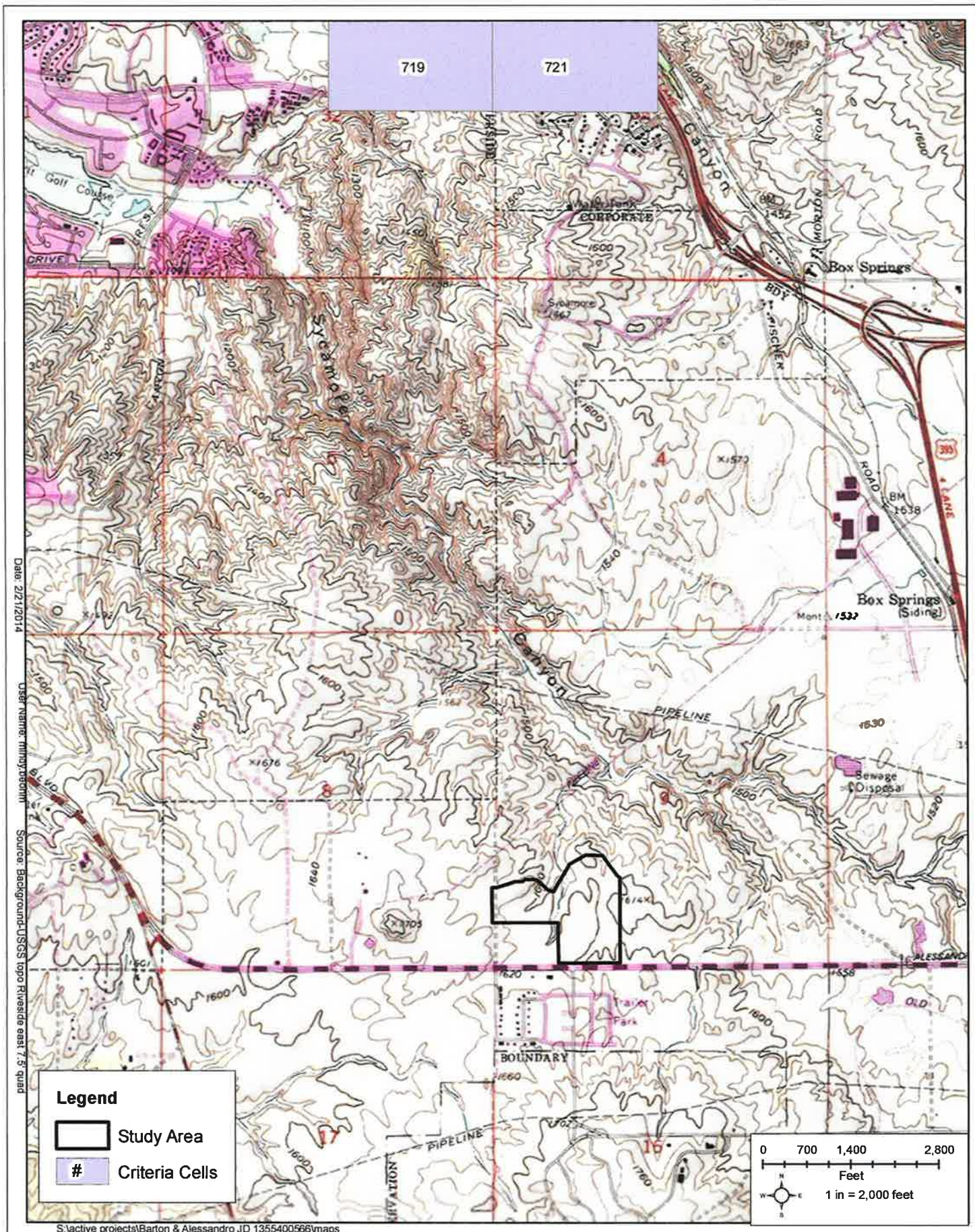
A new distribution center is proposed for this area, so AMEC has been contracted to survey areas in the vicinity of the proposed project to ensure that the project does not impact endangered species. This project area is shown on the attached map. The area to be surveyed is located east of Barton Street and north of Alessandro Boulevard in the City of Riverside, Riverside County, California. This area can be found on the U.S.G.S. 7.5 minute *Riverside East, CA* quadrangle. The approximate center of the site is at 471400E, 3753100 N. The habitat suitable for the Southwestern Willow Flycatcher is along two drainages on the site; the total extent of habitat is approximately 5 acres.

Please contact me with any questions.

Thank you,

Stephen J. Myers
Wildlife Biologist/Ornithologist
AMEC Environment and Infrastructure, Inc.
3120 Chicago Avenue, Suite 110
Riverside, CA 92507

stephen.j.myers@amec.com
(951) 369-8060



FIGURE

Sycamore Hills Distribution Center Project
Focused Surveys for LBVI and SWFL
July 2014

**CERTIFICATION STATEMENT FOR THE
UNITED STATES FISH AND WILDLIFE SERVICE**

We certify that the information in the survey report and attached exhibits fully and accurately represents our work.

Signed: _____

Date: _____

Signed: _____

Date: _____

APPENDIX F

MITIGATION PLANTING PLAN





Memo

To **Sonya Hooker**
Roth Villalobos & Associates, Inc.
From **Carla Scheidlinger** cc
Tel **(858) 300-4300**
Date **November 21, 2018**

Wood Project No. 1755500029

**Subject SYCAMORE HILLS DISTRIBUTION CENTER
CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA
MITIGATION PLANTING PLAN**

1.0 Introduction

Inland Investments, Inc. is proposing to develop the Sycamore Hills Distribution Center (Project). The Project area consists of assessor parcel numbers 263-060-022, -024, and -026 which encompass approximately 47.85 acres. It is located in the City of Riverside, Riverside County, California (Figure 1). Specifically, it is located within Section 9 of Township 3 South, Range 4 West, as shown on the United States Geological Survey (USGS) 7.5 minute Riverside East, California quadrangle (Figure 2). The geographic coordinates near the middle of the site are 33.91916° North latitude and 117.30918° West longitude. The proposed project site is bordered to the south by East Alessandro Boulevard, to the west by Barton Street, and to the north by Sycamore Canyon Regional Park, with unimproved private land to the east.

Impacts to jurisdictional resources have been quantified by a jurisdictional determination (Wood 2018). Permanent impacts identified to ephemeral drainages total 0.08 acre and 1,083 linear feet that were identified as being both Non-Wetland Waters of the United States (WUS) and Waters of the State of California (WSC). The patches of riparian vegetation in all impacted areas lack an ordinary high water mark (OHWM) and are therefore jurisdictional only to CDFW. These areas total an additional 0.52 acre of permanent impact. Permanent impacts are mitigated by habitat creation (establishment). In addition, there are 0.2 acre of temporary impact to CDFW jurisdictional resources which are mitigated by restoration.

The impacted habitat was described as riparian woodland dominated by Goodings black willow (*Salix gooddingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), mulefat (*Baccharis salicifolia*), blue elderberry (*Sambucus nigra* subsp. *caerulea*), and cottonwood (*Populus fremontii*). The drainage with no permanent impacts on the site includes the riparian trees listed above, and an understory dominated by mulefat, willow baccharis (*Baccharis salicina*), hoary nettle (*Urtica dioica* subsp. *holosericea*), saltgrass (*Distichlis spicata*), and branching phacelia (*Phacelia ramosissima*).

The concept is to replace the impacted riparian habitat with on-site and in-kind habitat establishment, and to perform enhancement for all un-impacted jurisdictional areas. The

mitigation proposes to create (establish) 0.61 acre of riparian woodland of a type jurisdictional to CDFW adjacent to the existing CDFW riparian woodland area south of the project site and north of Alessandro Blvd. In addition, the project will enhance a total of 1.58 acres of riparian habitat: 0.01 acre in Drainage A, 1.34 acre in Drainage B and 0.23 acre in Area C. Temporary impact to 0.02 acre of riparian habitat in Drainage B will be restored. In addition, the non-jurisdictional upland areas of slopes associated with the access road will be restored, as will be the temporary construction road. These actions are summarized in Table 1. A map of the proposed mitigations and their positions relative to the development footprint and to the existing habitat areas is shown in Figure 3.

Table 1. Summary of Mitigation Actions by Drainage or Habitat Area

Type of Action	Drainage A	Drainage B (acre)	Area C (acre)	Non-jurisdictional areas (upland roads)
Restoration (temporary impact)	0.00	0.02	0.00	0.73
Enhancement	0.01	1.34	0.23	0.00
Creation (Establishment)	0.00	0.00	0.61	0.00

2.0 Mitigation Implementation

2.1 Grading

The 0.61 acre creation site will be graded to a level approximating that of the adjacent unimpacted riparian areas to the east and west as shown in Figure 3. The grading will produce a shallow basin, with slopes will be relatively shallow (no more than 3:1 length to height) at the north and south ends, and will approximate the existing grade adjacent to existing habitat to the east and west. The total created habitat will be approximately 28,000 square feet (ft²).

There is no need to salvage topsoil, as it would contain the seeds of weeds that would not be desirable in the habitat creation area.

The 0.01 acre Drainage B restoration area will be graded back to the natural contour of the channel and its banks after the temporary construction road has been abandoned. The restoration areas associated with the access road slopes and toes, and the temporary construction road will be graded to the contours specified in the grading plans. No further grading is required.

No grading is proposed for the enhancement areas.

2.2 Site Preparation

As the created habitat is designed to mitigate for impacts to riparian vegetation, it is important to provide the habitat area with sufficient water to allow for successful establishment of riparian vegetation. There is no expectation that there will be continual water delivered to the site, but some initial “charging” of the water table would be desirable. Water should be delivered into the graded basin to a depth that fills it approximately half way, and allowed to percolate into the ground. If time allows between the conclusion of the grading and the acceptable planting window,

In addition, the areas between installed plants of the creation area will be seeded to assure soil stability and to provide species diversity in the area. The seed palette is in Table 3.

Table 3. Seeding Palette for Creation (Establishment) Area

Species	Common Name	Lbs/ac
<i>Marah macrocarpus</i>	Wild cucumber	2
<i>Distichlis spicata</i>	Saltgrass	2
<i>Bromus carinatus</i>	California brome	3
<i>Carex praegracilis</i>	Field sedge	4
<i>Oenothera elata</i>	Hooker's Evening Primrose	1
<i>Urtica dioica</i>	Hoary nettle	1
<i>Malacothamnus fasciculatus</i> var. <i>fasciculatus</i>	Bush Mallow	1
<i>Nassella pulchra</i>	Purple Needlegrass	4
<i>Rosa californica</i>	Wild Rose	2
<i>Leymus triticoides</i>	Creeping wild rye	4
<i>Stachys ajugoides</i>	Hedge Nettle	1
<i>Helianthus annuus</i>	Common sunflower	1
<i>Artemesia douglasiana</i>	Mugwort	4
<i>Total</i>		30

2.4 Planting Plan: Restoration Areas

The Restoration area in Drainage B will be planted with some of the same species in Table 2. As this area occupies only about 300 ft², a single individual of each of the *Baccharis* species and each of the willow species will be installed. The actual location for installation of each plant will be determined by the restoration contractor. The same seed mixture shown in Table 3 will also be distributed.

Additional restoration will be done in non-jurisdictional areas including the temporary construction road, and the slopes and toes of the new access road. The species shown in Tables 4 and 5 will be used at these locations. No container plant installation is proposed for the temporary construction road area; this area will be seeded only.

2.5 Planting Plan: Enhancement Areas

When non-native species have been removed, they will be replaced with native species. The woody species listed in Table 2 will all be appropriate for installation, at the discretion of the restoration contractor. Density of installed plants will approximate the density that had been occupied by the non-native species removed.

2.6 Planting Plan: Restoration Areas (access road shoulders and toes, and temporary construction road)

The Project anticipates that there will be 9,722 ft² of planted slopes associated with the development of the access road from Alessandro Blvd. to Building A. An additional 8,000 ft² is

also anticipated to be temporarily impacted during the construction of the roadway, at the toe of the slopes. Both of these areas would be outside the habitat establishment area. Where these areas impact jurisdictional resources, the entire disturbance area has been calculated to be mitigated with the 0.61 acre of establishment as described above. In addition, the temporary construction road will be restored to native vegetation.

The developer is committed to restoring the slopes of the access road, the temporary impact areas at the toe of the slopes, and the temporary construction road with native vegetation. The species palettes for these areas are shown in Tables 4 and 5.

Table 4. Planting palette for upland restoration area access road slopes

Species	Common name	spacing (ft)	sf/plant	number	total sf
<i>Acmispon glaber</i>	deerweed	3.5	12.25	80	980
<i>Artemisia californica</i>	California sagebrush	3.5	12.25	60	735
<i>Baccharis salicina</i>	willow baccharis	3.5	12.25	60	735
<i>Corethrogyne filaginifolia</i>	California Aster	3.5	12.25	100	1225
<i>Dipalpus aurantiacus</i>	monkey flower	3.5	12.25	100	1225
<i>Eriogonum fasciculatum</i>	California buckwheat	3.5	12.25	100	1225
<i>Encelia californica</i>	encelia	3.5	12.25	120	1470
<i>Isocoma mensiezii</i>	golden bush	3.5	12.25	80	980
<i>Salvia apiana</i>	white sage	3.5	12.25	30	367.5
<i>Salvia leucophylla</i>	purple sage	3.5	12.25	40	490
<i>Salvia mellifera</i>	black sage	3.5	12.25	30	367.5
Total				800	9800
Spacing based on 1 gallon size for all species					

Table 5. Seed for upland restoration areas

Species	Common name	PLS lbs/ac
<i>Achillea millefolium</i>	western yarrow	3
<i>Deschampsia caespitosa</i>	tufted hairgrass	3
<i>Melica imperfecta</i>	smallflower melic	3
<i>Muhlenbergia rigens</i>	deergrass	4
<i>Nassella cernua</i>	nodding needlegrass	5
<i>Nasella lepida</i>	foothill needlegrass	4
<i>Nasella pulchra</i>	purple needlegrass	5
<i>Sisyrinchium bellum</i>	blue-eyed grass	3
TOTAL		30

2.7 Planting Methods

For the habitat creation area, plants can be installed directly into the flat basin areas, with no additional soil stabilization.

For the enhancement areas, plants can be installed directly into the areas that have been vacated by the removal of non-native species. If root material requires removal (as may be the case for large patches of giant reed), that will be done prior to planting. The new planting site would then be smoothed and contoured by hand.

For the restoration area slopes associated with the access road, it will be necessary to install a jute or similar erosion control mat on the final slope area, as the proposed 2:1 slope is too steep for stability otherwise (NRCS 2006). Container plants will be installed through the mat by cutting appropriately sized and spaced holes. Bark mulch may be placed on top of the mat around the plants to assist with water retention.

For the restoration of other upland temporary impact areas including the toe of the access road and the temporary construction road, it is anticipated that the areas will be basically flat, or with gentle slopes. The seeds can be distributed by hydroseeding or by broadcasting and raking in. Sprinkler irrigation will be provided initially to assist with establishment.

General container plant installation and seeding specifications:

Mark with flags where container plants should be planted. Flags will have identification on them indicating which species are to be planted in each location. The proposed species would be planted in zones of appropriate moisture for each species, based on location within the basin.

Acquire and inspect container plants. Plants will be minimum one gallon size or equivalent (plants that are planted in taller, narrower pots than standard one gallon size may be appropriate for some species). Tree species will be acquired in 5-gallon containers, provided that suitable material can be located at a reasonable distance from the site.

Auger planting holes using a small tracked or wheeled machine such as a Bobcat for the introduction of container plants. Holes may also be dug by hand. Container plants will be installed into a hole at least 2 times as deep as the container, and 1.5 times as wide.

Plant container plants into the holes prepared. Mulch will be used as backfill, mixed with native soil, for container plants. Planting will be performed under the supervision of a Restoration Biologist. Planting methods are detailed below:

The planting hole will be filled with water and allowed to drain prior to planting. A small amount of backfill with mulch will be placed in the hole and lightly tamped down prior to placing the container stock.

The plant root ball will be placed on the backfill and the area will be backfilled entirely while applying water to the backfill soil. A small berm (water ring) will encircle the plantings to keep water centralized on each plant. The newly planted vegetation will then be watered.

Distribute seed into the planted areas, or onto the graded upland surfaces, and rake it in.

Subsequent irrigation will be done in all areas with the most appropriate method being determined by the restoration contractor. Options for the creation area include flooding, drip irrigation,

sprinkler irrigation, or a combination of these strategies. For the enhancement areas, options include drip irrigation and hand watering. For the riparian restoration area, hand watering may be the most appropriate strategy. For in the restored slopes, toes, and road areas, sprinklers and/or drip irrigation could be used. In all cases, water will be distributed as necessary. Irrigation times and rates will depend on vegetation condition and natural precipitation.

3.0 References

NRCS. 2006. Prevent Soil Erosion On Your Property: A Homeowner's Guide To Erosion Control. NRCS document 144p2_063808. Available from: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_063808.pdf

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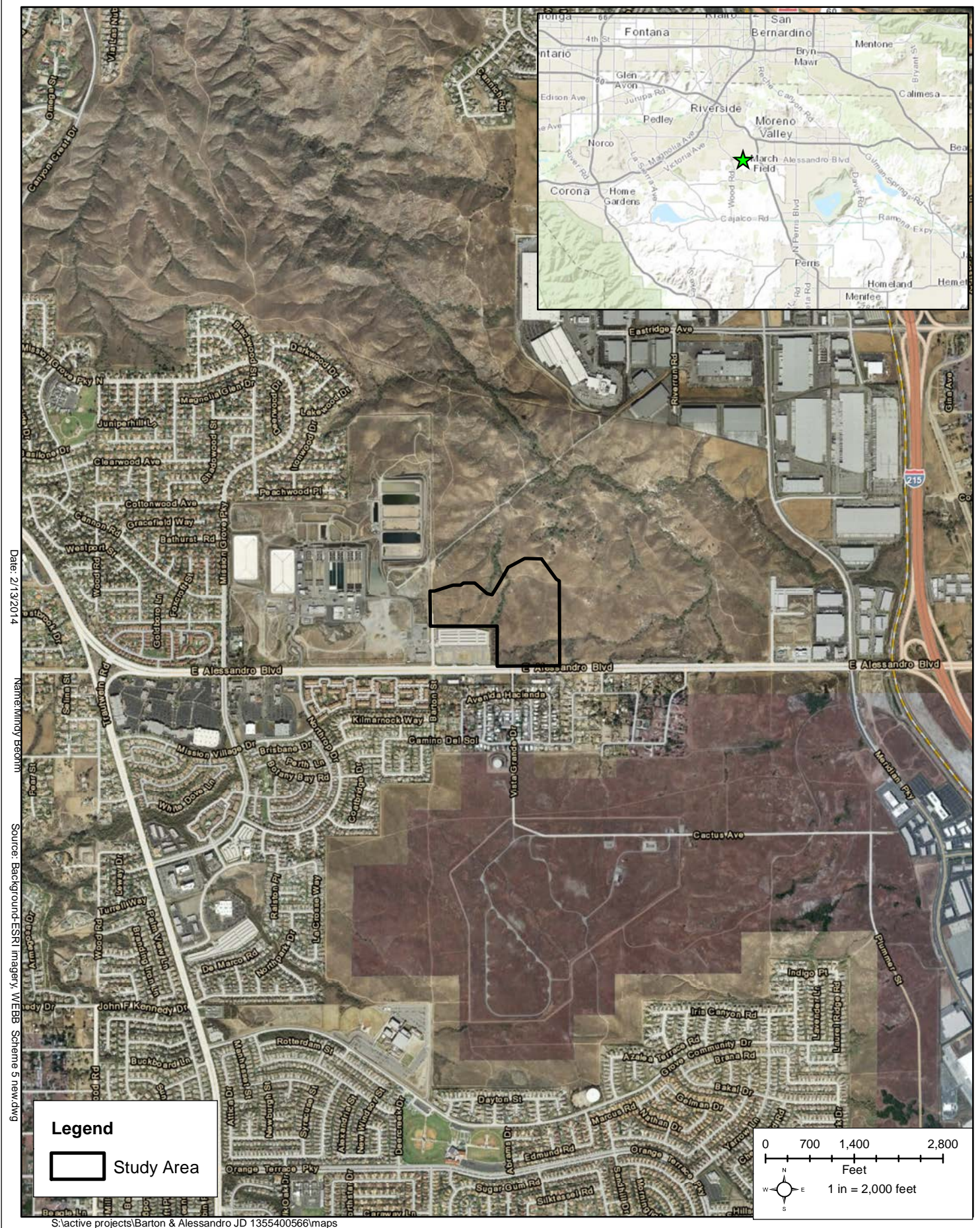
Wood Environment & Infrastructure Solutions, Inc. 2018. Jurisdictional Delineation Report: Sycamore Hills Distribution Center. 15 October 2018.

Please do not hesitate to contact us if you have any questions concerning this memo.

Respectfully submitted,

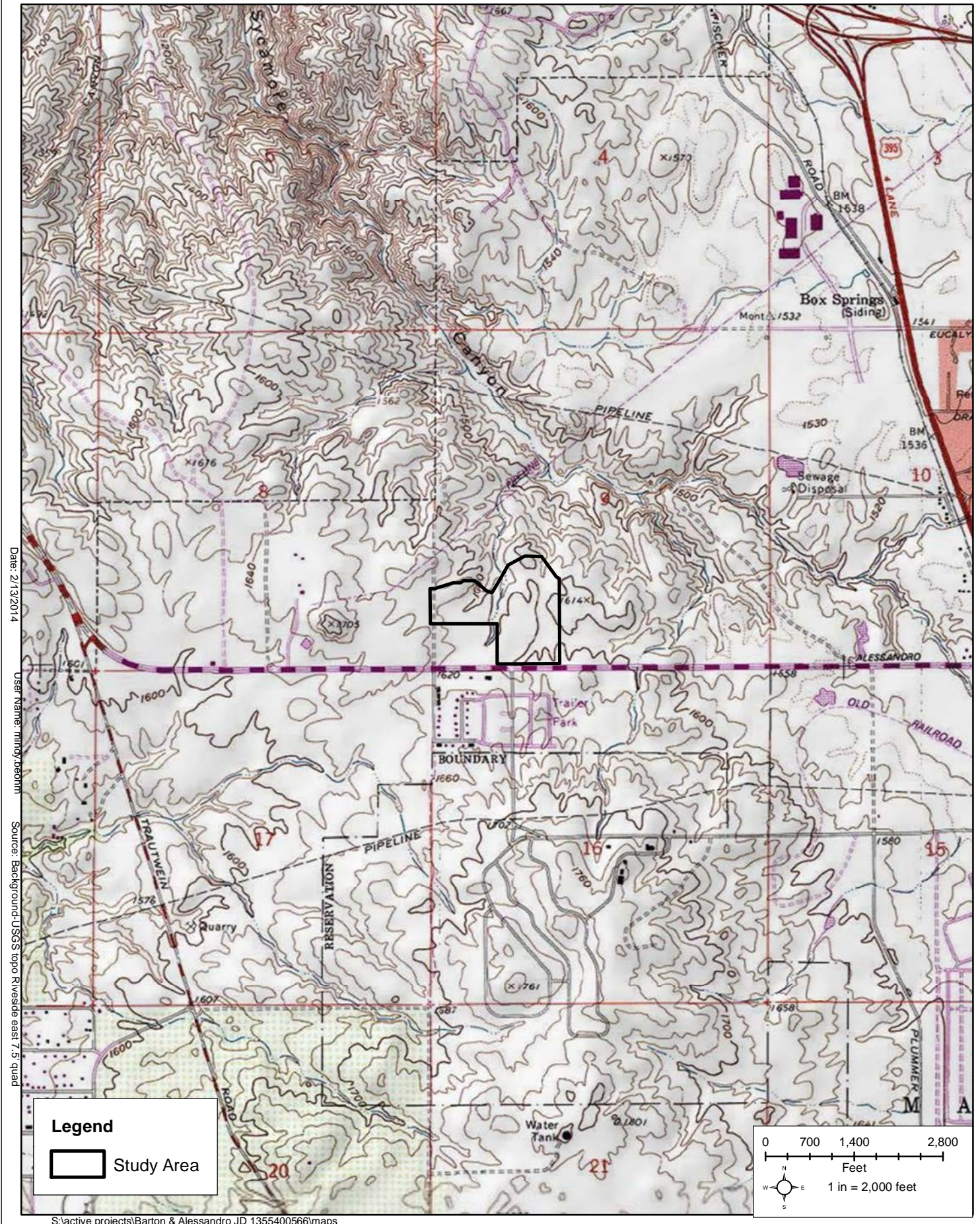
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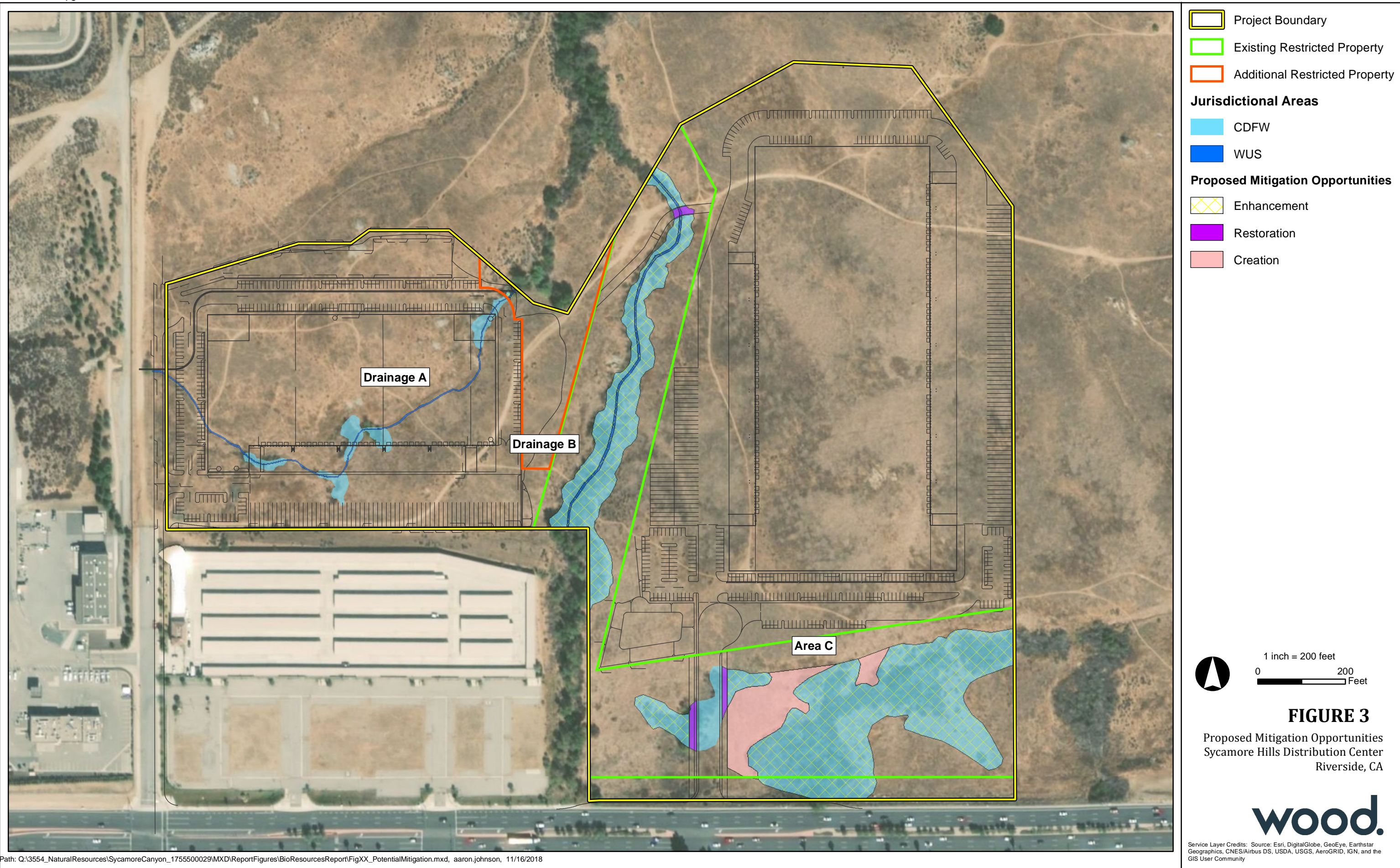
Carla Scheidlinger
Senior Scientist/Restoration Ecology



Vicinity & Location
Sycamore Hills Distribution Center

FIGURE





**Determination of
Biologically Equivalent or Superior Preservation (DBESP)
Report for Impacts to Riparian/Riverine Resources**

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DBESP Report

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Determination of Biologically Equivalent or Superior Preservation (DBESP) Report

1 INTRODUCTION

Section 6.1.2 of the Western Riverside County MSHCP outlines the process through which protection of riparian/riverine areas and vernal pools would occur in the MSHCP Plan area. The purpose of the DBESP analysis is to demonstrate that the proposed mitigation would provide a biologically equivalent or superior preservation to the impacted resources.

The Sycamore Hills Distribution Center Project will be acquiring project coverage under the MSCHP through the City of Riverside which is a permittee under the MSHCP. The objective of this report is to demonstrate that the proposed mitigation would provide equivalent or superior preservation of habitat function and value of lost riverine, riparian, and wetland habitats. This DBESP analysis includes a review of the riverine, riparian, and wetland habitats onsite that are proposed to be impacted, and incorporates avoidance, minimization, and mitigation measures adequate to offset these impacts and bring them to a level of less than significant.

1.1 Project Area

The proposed project is to construct an industrial warehouse development on three parcels [Assessor Parcel Numbers (APNs) 263-060-022, 263-060-024, 263-060-026], totaling 48.64 gross acres. The property is located at the northeast corner of Barton Street and Alessandro Boulevard in the City of Riverside (City), immediately south of the Sycamore Canyon Wilderness Park. Refer to Figure 1, *Project Vicinity and Location* and Figure 2, *Project Site Aerial Photo*. Alessandro Boulevard, directly south of the project site, is a major east-west roadway, with 3 lanes of traffic in each direction and a landscaped median. The project area is within Section 9 of Township 3 South, Range 4 West, USGS 7.5-minute *Riverside East* quadrangle in the City of Riverside, Riverside County. Refer to Figure 3, *Project Site Topographic Map*. The project area's geographic coordinates near the middle of the site are 33.91916° North latitude and -117.30918° West longitude.

1.2 Background/ History of Site

The Grove Community Church formerly owned the Project site property and planned to build a new church there. However, as the site is located within the C-1 Primary Approach/Departure Zone of the March Air Reserve Base/ Inland Port Airport Land Use Compatibility Plan, and due to restrictions regarding the height of the building and the maximum number of people allowed to congregate at any time, it was not conducive to the church's plans. March Joint Powers Authority (MJPA) assisted the church in finding a new location for the church, approximately one mile to the southwest at 19900 Grove Community Drive, Riverside (Refer to Figure 1, Project Vicinity & Location).

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Construction of the Grove Community Church at this location had impacts to a jurisdictional drainage and associated riparian habitat. To mitigate for impacts at the Grove Community Drive site, a portion of the Project site at Alessandro Boulevard and Barton Street was set aside and preserved in a legally designated “Restricted Property,” recorded in 2009. The 11.6 acre Restricted Property area supports a jurisdictional drainage and associated riparian habitat and was required as a condition of the Clean Water Act Section 404 permit from the US Army Corps of Engineers for construction of the church at the Grove Community Drive site.

MJPA purchased the Project site property from the church with the intent to sell and to convey title of the Restricted Property area to the City of Riverside. However, a parcel map was not created, and the title transfer did not take place. MJPA is still the owner of the entire Project site property. The Project applicant intends to purchase the property from MJPA upon project entitlement approvals. (Refer to Figure 1, *Project Vicinity & Location*).

1.3 Project Description

Proposed Description

The project proposes subdividing the site into two parcels (Parcels 1 and 2), and three lettered parcels (Parcels A, B, and C).

Parcels 1 and 2

Each parcel is proposed to be developed with a high cube transload short-term warehouse building (Buildings A and B). Building A, a 400,000 square foot warehouse, will be constructed on Parcel 1. Building B, a 203,100 square foot warehouse, will be constructed on Parcel 2. Associated improvements include parking, fire lanes, fencing and walls (including retaining walls), landscaping, and water quality treatment areas. Both warehouse buildings are proposed for high cube transload short-term use, primarily for the short-term storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials), usually on pallet loads or larger handling products prior to their distribution to retail locations or other warehouses. A typical high cube warehouse has a high level of on-site automation and logistics management. No refrigeration use is proposed. Refer to Figure 4, *Site Plan*.

The buildings will have nighttime lighting for security. Exterior lights will be shielded downwards and set to motion detectors and will only turn on if employees are present at either of the buildings when it is dark. Interior lights will also be on motion detectors.

The proposed Project includes modifications to the Restricted Property to facilitate access from Alessandro Boulevard to Building A on Parcel 1. As the access road will cross an area that is at a lower elevation than Alessandro Boulevard and the elevation of proposed Parcel 1/ Building A, it will be elevated and constructed on earthen fill with 2:1 side slopes. The elevated access road will have two culverts (38-inch x 57-inch wide arch pipe) that cross under the fill and access road to

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provide surface hydrology and wildlife access underneath. (Refer to Figure 5, *Parcel 1 Entry Road Plan*) A new traffic signal is proposed at Vista Grande Drive and Alessandro Boulevard to facilitate access to Building A.

Perimeter walls proposed on Parcel 1 include: 1) 42-inch high cable rail theme fence along the northerly, westerly, and a portion of the southwesterly property line; 2) 8-foot high concrete wall along most of the easterly property line; 3) 8-foot high tubular steel fence along a portion of the southeasterly property line; and 4) 8-foot high tubular steel fence along the southerly property line. The access road to from Alessandro Boulevard to Building A would include 42-inch high cable rail theme fence on each side of the road. Parcel 1's landscaping includes fire resistant groundcover, shrubs and columnar trees.

Perimeter walls proposed on Parcel 2 include: 1) 8-foot high tubular steel fence along the northwesterly property line; 2) 8-foot high combination screening fence/wall, consisting of 4-foot high tubular steel fence on top of 4-foot high screen wall, along the northerly property line; 3) 8-foot high concrete wall along a portion of the northeasterly and most of the easterly property line; 4) 42-inch high cable rail theme fence along a portion of the southeasterly property line; 5) 6-foot high tubular steel fence along the westerly boundary of the parcel with two separate arm gates located toward the northwesterly and southwesterly portion of the boundary; and 6) 8-foot high tubular steel fence along the southerly property line. Parcel 2's landscaping also includes fire resistant groundcover, shrubs and columnar trees.

Parcels A, B, and C

Parcels A and B contain the existing 11.6-acre Restricted Property that landlocks Parcel 1. Parcel C will be designated open space for a trailhead parking lot. Parcel A, B, and C are described in more detail below:

- Parcel A consists of 313,196 square feet (7.19 acres) and is designated as a Conservation Area. Parcel A will be part of the Restricted Property on the west side of the proposed access road along Alessandro Boulevard. The proposed Project includes removing 0.81 acres of the Restricted Property to create a driveway connecting Parcel 1/Building A to Alessandro Boulevard. As part of mitigation for the Project, 1.44 acres will be incorporated into Parcel A, for a net gain of 0.63 acre of new Restricted Property. Thus, Parcel A and B will have a total of 12.23 acres of Restricted Property as part of the Project.
- Parcel B consists of 219,542 square feet (5.04 acres) and is designated as a Conservation Area. Parcel B will be part of the Restricted Property on the east side of the proposed access road along Alessandro Boulevard. The access road would include two elliptical shaped corrugated metal pipes measuring 38 inches high and 57 inches wide to allow drainage and wildlife connectivity between Parcel A and Parcel B. Parcels A and B will be managed in perpetuity by a professional conservation organization funded by the applicant as part of mitigation for the Project.

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- Parcel C is proposed to be developed with a trailhead parking lot for the Sycamore Canyon Wilderness Park and will be designated as open space. It consists of 51,284 square feet (1.18 acres). The northerly terminus of Barton Street is identified as “a minor trailhead” in the *Sycamore Canyon Wilderness Park Stephens’ Kangaroo Rat Management Plan and Updated Conceptual Development Plan*. The proposed trailhead parking lot will include an improved decomposed granite parking lot, landscaping, a shade structure with benches, a bike rack, a drinking fountain (including for pets), and ADA (Americans with Disabilities Act) compliant parking spaces and sidewalk. Trail fencing, gates, and signage will also be installed to direct access, circulation and trail connection to existing trails as well as the master planned multipurpose trail on the west side of Barton Street. The proposed trailhead parking lot is not required but is being provided by the applicant as an amenity and addition to the City’s Sycamore Canyon Wilderness Park. Parcel C would be dedicated to the City and operated and managed by the City’s Parks, Recreation, & Community Services Department.

Construction

The developed site for Parcel 1/Building A consists of approximately 24.31 acres with undulating topography (approximately 1,570’ to 1,615’ above mean sea level, “MSL”). The site for Parcel 2/Building B consists of approximately 10.32 acres with undulating topography (1,580’ to 1,618’ above MSL). It is anticipated that excavation of decomposed granite may be performed utilizing conventional earthmoving equipment. Blasting will not be required and is not proposed as part of the Project site preparation activities. The planned grading results in cut areas up to 16 feet and fill areas as much as 12 feet. Over-excavation may be required to provide necessary structural support but is not expected to exceed 3 feet in depth.

Construction will occur in accordance with the City’s Noise ordinance, during the hours of 7 am to 7 pm Monday through Friday, 8 am to 5 pm on Saturdays, and not on Sundays or federal holidays. Overall construction is anticipated to last approximately 15 months. Grading and preliminary road construction is the first phase and is expected to last approximately 3 months. After grading, building construction will last approximately 12 months and includes slab and wall framing, concrete pouring, roof installation building interiors, architectural coatings, parking lots, roadway improvements, landscaping, storm drains and water quality basins, etc.

Operation

An opening/operational year of 2023 is anticipated. Operation of Buildings A and B as high cube transload short-term warehouse are expected 24 hours a day, 7 days a week. The buildings will have nighttime lighting for security; however, the lights will be shielded downwards and will be on motion detectors so will only come on if employees are present at either of the buildings when it is dark.

1.4 Avoidance Alternative

The proposed Parcel 1/ Building A site is bounded on the north by the Sycamore Canyon Wilderness Park, on the east by vacant private property, and on the south and west by the 11.6-acre legally designated as “Restricted Property.” Therefore, the proposed Parcel 1/ Building A site does not have access to Alessandro Boulevard or Barton Street without crossing the Restricted Property and the existing riparian/riverine areas. Access for Parcel 1/ Building A would require construction of an access road across the Restrictive Property and associated riparian/riverine areas. The proposed access road location was selected in an effort to minimize the impacts to riparian/riverine areas to the greatest extent feasible as well as align the new traffic signal with Vista Grande Drive, south of the Project site.

2 EXISTING CONDITIONS

2.1 Existing and Adjacent Land Uses

The project area is not located within a Cell group, Criteria Cell Area, or adjacent to a Criteria Cell Area. The project area is located directly adjacent to and south of the Sycamore Canyon Wilderness Park, which is owned by the City of Riverside and a portion directly north of the project by the State of California. The Sycamore Canyon Wilderness Park is approximately 1,500 acres of open space parkland that provides public access recreation, including hiking and biking, and is also home to a variety of plant and animal species, including the federally endangered Stephens’ kangaroo rat (SKR). Sycamore Canyon Wilderness Park is one of eight core reserves for SKR in western Riverside County, established as part of the SKR Habitat Conservation Plan and designated as a Public/Quasi-Public Land under the Western Riverside County MSHCP. The project area is not located within US Fish and Wildlife Service (USFWS) designated critical habitat for any federally listed species.

The project area is currently undeveloped with no existing structures. It is dominated by disturbed non-native grassland with two ephemeral drainages, some with riparian vegetation, transecting the site and one riparian feature along the southern portion of the site adjacent to Alessandro Boulevard. Metropolitan Water District’s (MWD) Henry Mills Water Treatment Plant is located directly to the west, a self-storage facility to the southwest, Alessandro Boulevard, a six-lane roadway to the south with residential and commercial on the south side of Alessandro Boulevard, and undeveloped private property to the east.

2.2 Soils

Appendix 1 contains the Project’s Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report, in which the *Jurisdictional Delineation* is included as Appendix D to that report. As part of the jurisdictional delineation, the project site was

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assessed to determine the presence of US Army Corps of Engineers (USACE) jurisdictional wetlands, which are identified by three criteria: the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. The USDA online Web Soil Survey (based on the 1971 *Soil Survey of Western Riverside Area, California*) was reviewed to determine the soil types mapped as occurring within the project site. None of the soil types within the project site are found on the USDA's National List of Hydric Soils. Thus, no wetlands were identified within the project site based on the absence of hydric soil indicators. The project site crosses seven different mapped soil series (Figure 6, *Soils*) including:

- Arlington fine sandy loam (AnC) – This well-drained soil occurs on alluvial fans and terraces with 2 to 8 percent slopes. It is composed of fine sandy loam and the parent material is composed of alluvium dominantly from granitic rocks.
- Cieneba sandy loam, eroded (ChF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of sandy loam on the surface and the parent material is composed of coarse-grained igneous rock.
- Cieneba rocky sandy loam, eroded (CkF2) – This somewhat excessively drained soil occurs on uplands with 15 to 50 percent slopes. It is composed of rocky sandy loam on the surface and the parent material is composed of coarse-grained igneous rock.
- Fallbrook sandy loam, eroded (FaD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook sandy loam, shallow, eroded (FbC2) – This well-drained soil occurs on uplands with 5 to 8 percent slopes. It is composed of sandy loam and developed on granodiorite and tonalite.
- Fallbrook fine sandy loam, shallow, eroded (FkD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of fine sandy loam and developed on granodiorite and tonalite.
- Vista coarse sandy loam, eroded (VsD2) – This well-drained soil occurs on uplands with 8 to 15 percent slopes. It is composed of coarse sandy loam and developed on weathered granite and granodiorite.

None of these common soil types are specifically associated with special-status species.

2.3 Hydrology

The average rainfall for the area is 9.86 inches per year. Weather data was recorded approximately 3.5 miles northwest of the project site.

There are two ephemeral drainages that traverse portions of the project site in a southwest to northeast direction. Storm water runoff flow in these drainages generally in a northeast direction. (Refer to Figure 8, *Riparian Riverine Areas*)

These drainages likely flow for less than 3 months per year but do eventually flow into the Santa Ana River. As the two ephemeral drainages exit the site, the drainage flows continue north for ½ mile before converging with Sycamore Canyon Creek. Sycamore Canyon Creek flows for 2.5 miles northwest before converging with Tequesquite Arroyo. Tequesquite Arroyo flows for 6.9 miles before reaching the Santa Ana River. The Santa Ana River flows southeast for 16 miles before reaching Prado Basin. The Santa Ana River continues west for 30 miles before reaching the Pacific Ocean.

2.4 Riparian/Riverine Resources

The identification and mapping of riparian/riverine resources for this DBESP is based on information contained in the *Jurisdictional Delineation Report* and the *Biological Resources Report* for the project (Wood 2020).

A delineation of jurisdictional waters, including wetlands, was originally conducted by wetland specialist Scot Chandler on January 17 and 28, 2014, and was verified on May 18, 2017. A revised impact analysis was conducted in September of 2018. James Mace of the US Army Corps of Engineers, Los Angeles District conducted a site visit and evaluation on September 25, 2018, and confirmed Scot Chandler's delineation of Waters of the US. An additional field survey of the area was conducted by Wood Senior Biologist Dale Hameister on November 14, 2019, to update existing conditions.

MSHCP riverine and riparian areas were mapped consistent with waters of the US regulated by USACE and streambeds and associated riparian vegetation under the jurisdiction of the California Department of Fish and Wildlife (CDFW). The MSHCP Section 6.1.2 definition of riparian/riverine areas, vernal pools, and fairy shrimp habitat exclude areas artificially created, unless artificially created for the purpose of mitigation wetlands or open waters. However, there are no artificially created riparian/riverine or vernal pool features onsite. The drainages are consistent with USGS topographic maps and historic aerial photographs.

Upstream and downstream connectivity of waterways was reviewed in the field and on aerial photographs and topographic maps to determine waters of the US/State/riverine areas/streambeds. Ephemeral washes with a physical connection to Sycamore Canyon Creek, and ultimately the

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Pacific Ocean, were determined to be waters of the US/State and CDFW streambeds and riverine areas.

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and A Field Guide to Lake and Streambed Alteration Agreements (California Department of Fish and Game, 1994). Specifically, CDFW jurisdiction was delineated by measuring the outer width and length boundaries of on-site streambeds which consisted of either the top of bank measurement (bankfull width) or the extent of associated riparian vegetation.

To determine jurisdictional boundaries, the surveyors walked the length of the drainage within the project area and recorded the centerline with a Trimble GeoXH global positioning system. The width of the drainage was determined by the Ordinary High Water Mark (OHWM) and bankfull width measurements at locations where transitions were apparent. Other data recorded included bank height and morphology, substrate type, and all vegetation within the streambed and riparian vegetation adjacent to the streambed. Upon completion of fieldwork, all data collected in the field were incorporated into a Geographic Information System (GIS) along with basemap data. The GIS was then used to quantify the extent of jurisdictional waters.

There are two riverine/riparian drainages onsite and one riparian resource area as mapped in the Jurisdictional Delineation Report and are shown in Figure 7, *Vegetation Communities* and Figure 8, *Riparian/ Riverine Areas*.

Drainage A

The first riverine/riparian feature (Drainage A) enters the project site near the northern portion of the western boundary and exits the site near the middle of the northern boundary. Drainage A contains sparsely vegetated sections and areas of dense riparian vegetation. The sparsely vegetated portions of the streambed of Drainage A were dominated by short-pod mustard, western marsh cudweed (*Gnaphalium palustre*), and pygmy-weed (*Crassula connata*). The patches of riparian vegetation were dominated by mulefat, willow baccharis, (*Baccharis salicina*), Goodding's black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*) and blue elderberry (*Sambucus nigra* subsp. *caerulea*). The presence of USACE wetlands was investigated and although the sampling point exhibited hydrophytic vegetation, it lacked hydric soils and wetland hydrology. As previously discussed, the presence of hydric soils and wetland hydrology are among the three criteria that must be fulfilled in order to classify an area as a wetland under the jurisdiction of USACE. Thus, as the sampling point lacked these criteria features, no presence of USACE jurisdictional wetlands was detected.

USACE jurisdiction/riverine area averaged 3 feet wide based on OHWM limits which included a break in bank slope and change in substrate. CDFW jurisdiction/ riparian areas ranged from 3 feet wide based on bankfull width in the upland vegetated portions of the drainage to 65 feet wide based on the extent of riparian vegetation. The banks of Drainage A ranged from vertically incised

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to steeply-sloping with depths averaging 6 inches to 1 foot. The extent of non-wetland waters of the US/State/riverine area on-site for Drainage A is 0.08 acre and 1,183 linear feet. The extent of riparian area on-site for Drainage A is 0.35 acre.

Drainage B

The second riverine/riparian feature (Drainage B) enters the project site near the middle of the southern boundary and exits the site near the middle of the northern boundary. Drainage B contains dense riparian vegetation throughout the entire on-site extent. The canopy layer was dominated by Fremont cottonwood (*Populus fremontii* subsp. *fremontii*) and red willow. The understory was dominated by mulefat, willow baccharis, hoary nettle (*Urtica dioica* subsp. *holosericea*), saltgrass (*Distichlis spicata*), and emergent grasses. Herbs are more common than shrubs in this community within the project site, which lacks a well-developed mid-story canopy, and contains a relatively sparse understory. The understory has been damaged significantly by unsheltered poverty-stricken individuals (homeless encampments). The presence of USACE wetlands was investigated and although the sampling point exhibited hydrophytic vegetation it lacked hydric soils and wetland hydrology. Thus, as the sampling point lacked these two criteria USACE wetland features, no presence of USACE wetlands was detected.

USACE jurisdiction/riverine area averaged 5 feet wide based on OHWM limits which included the destruction of terrestrial vegetation. CDFW jurisdiction/ riparian areas ranged from 30 to 100 feet wide based on the extent of riparian vegetation. The banks of Drainage B ranged from gently-sloping to vertically incised with depths averaging 1-2 foot. The extent of non-wetland waters of the US/State/riverine area on-site for Drainage B is 0.11 acre and 918 linear feet. The extent of riparian area on-site for Drainage B is 1.36 acres.

Area C

There is a third area with only riparian features that does not exhibit a channel or other signs of confined water flow (Area C). It is located in the southeast portion of the project site. Area C contains dense riparian vegetation dominated by mulefat, hoary nettle, willow baccharis, branching phacelia (*Phacelia ramosissima*), and Goodding's black willow. The presence of USACE wetlands was investigated and although the sampling point exhibited hydrophytic vegetation it lacked hydric soils and wetland hydrology. Thus, as the sampling point lacked these two criteria USACE wetland features, no presence of USACE wetlands was detected.

There is no USACE jurisdiction/riverine area associated with Area C due to lack of OHWM. The extent of CDFW jurisdiction/riparian area on-site for Area C is 3.45 acres based on the extent of riparian vegetation.

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Table 1: Onsite Riparian and Riverine Resources

Drainage Feature	Linear Feet (LF)	Riverine Area (acre)	Riparian Area (acre)
Drainage A	1,183	0.08	0.35
Drainage B	918	0.11	1.36
Area C	n/a	0	3.45
Total	2,101	0.19	5.16

2.5 Riparian-Nesting Birds

Habitat is present for the least Bell's vireo (*Vireo bellii pusillus*; LBVI) and southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL), two state and federally listed endangered riparian-nesting birds. Because habitat is present on site, the MSHCP requires focused surveys for these birds pursuant to Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*. Surveys were conducted for the least Bell's vireo and southwestern willow flycatcher in 2014, with positive results for the vireo and negative results for the flycatcher. Refer to Figure 9, *Vireo and Flycatcher Observation Locations*, for the locations where they were observed in 2014. Surveys for LBVI and SWFL were conducted again in 2020. All potentially suitable LBVI habitat areas were surveyed eight (8) times between April 10 and July 31, 2020 and five (5) SWFL surveys were conducted in May 2020. The 2020 SWFL surveys were conducted in the riparian woodland habitat along the north-south drainage as habitat in the eastern portion of the study area was deemed not suitable due to the lack of canopy present and small patch size. Protection of riparian/riverine areas and vernal pools is important to conservation of other bird species also: the bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). However, habitat is not present for the bald eagle, peregrine falcon, or the yellow-billed cuckoo; thus, focused surveys for these species were not warranted or completed.

Two (2) LBVI males were detected during a May 2020 survey; however, only one male remained for all subsequent surveys during the 2020 season (Kidd Biological, 2020). As outlined in the Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report (Wood 2020), the project site contains habitat that is still suitable to support LBVI from the time they begin to arrive in mid-March until their departure by early September. There are multiple records of LBVI within the surrounding 2-mile (and further) radius of the site. Some records predate 2008 through to the present of numerous territories, pairs and

fledglings/young in Sycamore Canyon, Box Springs Canyon, and Alessandro Arroyo. Therefore, for the purposes of this analysis it is assumed that least Bell's vireos continue to utilize the riparian woodland habitat areas in the project area for foraging and nesting in the spring and summer.

No SWFL were detected within the survey area during the 2014 protocol surveys nor within the survey area during the 2020 season. However, willow flycatchers were detected during two surveys- one on May 22, 2014, and two on June 2, 2014; see Figure 9, *Vireo and Flycatcher Observation Locations*. These occurrence dates are within the normal period of spring migration of this species in southern California. To support this fact, no willow flycatchers were found during surveys conducted after the end of known SWFL migration times. Therefore, it is assumed that all of the observed willow flycatchers were migrants, (likely of more northerly subspecies [*E.t. adastus* or *E.t. brewsteri*]), and not southwestern willow flycatchers (subspecies *E.t. extimus*).

No southwestern willow flycatchers have been documented within a 2-mile radius of the study area, but potential habitat is present within and near that area, so SWFL is considered to be of potential occurrence. However, the marginal habitat present on the project site makes it unlikely that the site will be used in the future by this species.

2.6 Vernal Pools

Section 6.1.2 of the Western Riverside County MSHCP further defines vernal pools 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. 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 the 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.”

The two on-site drainages (Drainage A and B) are ephemeral and flow across the site in a northeast direction and then into Sycamore Canyon Creek. Although there are no defined bed and bank, the riparian area (Area C) also conveys ephemeral storm water runoff in a northeast direction towards and into Sycamore Canyon Creek. All three of these feature's flow follows the topographic relief of the site. There are no low-lying sumps in the project site that would collect and retain water and support a vernal pool. The existing topography of the site conveys storm water offsite and does not support vernal pools.

2.7 Fairy Shrimp

The project site does not contain habitat for fairy shrimp including any stock ponds, ephemeral pools, or other features with a potential to support Riverside, vernal pool, or Santa Rosa fairy shrimp. Thus, focused surveys for these species were not warranted or completed.

2.8 Functions and Values Assessment of Riparian/Riverine Resources

The riparian/riverine areas within the proposed project limits are supported by stormwater runoff and non-storm water runoff from residential and commercial developed areas to the south and southwest, including runoff from Alessandro Boulevard. Water runoff from the west of the site comes from the MWD treatment plant. Drainage A enters the site through a 4-foot concrete pipe near the northern portion of the western boundary and ranges in areas of sparse vegetation sections to areas of dense riparian vegetation. Drainage A provides low to moderate functions and values for ephemeral stream flows, nutrient cycling, water quality, energy transfer, and wildlife habitat. A majority of Drainage A within the project site would be impacted through project implementation.

Drainage B begins south of the site and extends onto the site from its southern boundary and on the east side of the self-storage development. This drainage supports dense riparian vegetation throughout the entire extent of the project and provides moderate to high functions and values to the watershed. Drainage B is an ephemeral stream that provides ecological and hydrological functions by moving water, nutrients, and habitat for sensitive species. It extends through the site to the north into the Sycamore Canyon Wilderness Park. Within the project site boundaries, it occurs within the conservation area and would therefore not be impacted through project implementation.

Area C has riparian habitat but does not exhibit riverine or water flows within a defined bed and banks. Because this riparian feature is not connected and does not contribute hydrologically to the watershed, it is considered to be low value for hydrological functioning. It does, however, provide moderate values for flood storage, sediment trapping, nutrient retention, toxicant trapping, and wildlife habitat for sensitive species. It extends through the site to the east into undeveloped private property. Within the project site boundaries, it occurs within the conservation area and would therefore not be impacted through project implementation.

3 IMPACTS

3.1 Avoidance

The existing 11.6-acre Restricted Property/ conservation area would remain in place with only minor impacts to the riparian habitat within the conservation area and minor revisions being

proposed to the size and configuration of this conserved area. The project will avoid 0.11 acre of riverine habitat and 4.36 acres of riparian habitat within the Restricted Property/ conservation area.

3.2 Direct Impacts

Vernal Pools/Fairy Shrimp

The habitat assessments, delineation of jurisdictional waters, and various focused surveys did not identify depressions within the project area that would meet the definition of vernal pools or suitable habitat for fairy shrimp per Section 6.1.2 of the MSCHP. Therefore, the project would not impact vernal pools or fairy shrimp.

Drainage A

Drainage A impacts would include 0.08 acre of permanent impacts to riverine resources and 0.23 acre of permanent impacts to riparian resources from development of the Building B site.

Drainage B

Drainage B impacts would include only temporary impacts, 0.002 acre to riverine resources and 0.017 acre of temporary impacts to riparian resources from use of an existing trail during construction activities.

Area C

Area C impacts would include 0.57 acre of permanent impacts to riparian resources. Permanent impacts would occur through the development of the access road to Building A.

Table 2 below provides the acreages of impacts to both riparian and riverine resources within the project site.

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Table 2: Impacts to Riparian and Riverine Resources

Drainage Feature	Riverine Resources (acres)			Riparian Resources (acres)		
	On-Site Acreage	Permanent Impacts	Temporary Impacts	On-Site Acreage	Permanent Impacts	Temporary Impacts
Drainage A	0.08 acre 1,183 LF	0.07 acre 1,044 LF	0	0.27 acre	0.23 acre	0
Drainage B	0.11 acre 918 LF	0	0.002 acre 21 LF	1.25 acre	0	0.017 acre
Area C	0	0	0	3.45 acres	0.57 acre	0
Total	0.19 acre 2,101 LF	0.07 acre 983 LF	0.002 acre 22 LF	4.97 acre	0.80 acre	0.017 acre

In summary, the total riparian/riverine areas within the project site total 5.16 acres. The total permanent impacts to riparian/riverine areas is 0.80 acre and the total temporary impacts are 0.017 acre within the project site.

3.3 Indirect Impacts

The two warehouses are directly adjacent to the Sycamore Canyon Wilderness Park, which is a Stephens' kangaroo rat reserve and supports habitat and individuals of other endangered birds. Potential indirect impacts include new sources of noise and night-time lighting that could extend out into the adjacent park/preserve and adversely affect habitat for SKR and other sensitive species. New sources of light and noise could also adversely affect the animals directly by disturbing their normal activities. Toxic pollutants and invasive plant species could be conveyed via storm water and non-stormwater runoff from the site into the adjacent park/preserve and adversely affect habitat for sensitive species.

However, the following requirements and design elements will be implemented as part of the project and will avoid or substantially reduce these potential indirect impacts to the adjacent park/preserve and sensitive biological resources.

Drainage

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With development of the Proposed Project, Drainage A storm water runoff will continue to flow through the site via an underground 48-inch pipe that will cross through the proposed project along the northern parking lot of Building B and will continue to convey the discharge flows to an off-site location. The continued conveyance of stormwater and non-stormwater runoff and connectivity to Drainage B as well as Area C will not be altered and the hydrology support to the riparian/riverine areas located outside and downstream of the project site will not be cut off or significantly reduced. The project will be required to implement these design features as a City condition of approval.

Toxics

The proposed project is required to implement a Project Specific Water Quality Management Plan (WQMP) with Best Management Practices (BMPs) to address the project's pollutants and preventing them from being discharged into Drainage B or Area C and offsite into downstream receiving waterbodies, including Sycamore Canyon Creek and the Santa Ana River. The project will be required to implement the WQMP as a City condition of approval.

Lighting

Per Section 6.1.4, *Guidelines Pertaining to the Urban/Wildlands Interface*, night lighting is to be directed away from MSHCP Conservation Areas to protect species within the Areas from direct night lighting. As such, while the warehouse buildings will have nighttime lighting for security, the lights will be shielded downwards, have motion detectors and will only be turned on if and when employees are present. A photometric study is required by the city to ensure that the light sources will be shielded to minimize off-site glare, will not direct light skyward, and will be directed away from adjacent properties and public right-of-ways. If lights are proposed to be mounted on buildings, down-lights shall be utilized. Light poles shall not exceed 20-feet in height. An 8-foot combination wall (4-foot high concrete with 4-foot wrought iron on top) will be constructed along the northern side of Building B to separate the Building B parking and drive areas from the trailhead parking area and block any vehicle headlights from shining into the Sycamore Canyon Wilderness Park to the north. The project will be required to implement these design features as a City condition of approval.

The trail head parking lot, which is located along the northern side of Building B, is a buffer between the warehouse operations at Building B and the wilderness park/preserve. The trail head parking lot will be deeded to the City of Riverside. Per Riverside Municipal Code (RMC) Section 9.08.110, all parks owned by the City of Riverside shall be closed from thirty minutes after sunset of one day and thirty minutes before sunrise of the next day, unless otherwise exempt. Therefore, the trail head parking lot is anticipated to be closed between dusk and dawn and would not have vehicle headlights shining into the park from the parking lot.

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Noise

Construction noise is anticipated to exceed 65 dBA(A) Leq within portions of the sensitive riparian habitat between the buildings (associated with Drainage B) and the adjacent Sycamore Canyon Wilderness Park. Construction noise impacts will be minimized with implementation of a mitigation measure Noise-1 identified in the project-specific Noise Study for the project as outlined below.

Mitigation Measure Noise-1: Should LBVI be present in the Sycamore Canyon Wilderness Park within 300 feet of the project site, in Parcel A on-site conservation area, or within Parcel B on-site conservation area within 100 feet of the development footprint, construction noise impacts shall be minimized through implementation of the following measures:

1. Install a 12-foot high temporary noise barrier at the perimeter of the limits of disturbance between the construction activities and the adjacent Sycamore Canyon Wilderness Park to the north and east and the on-site conservation areas. The barrier shall be continuous without openings, holes or cracks, and shall reach the ground. The barrier may be constructed with 1-inch plywood and provide a reduction of at least 10 dB(A) to ensure noise levels do not exceed 65 dB(A) at the Sycamore Canyon Wilderness Park and on-site conservation areas. Other materials providing the same reduction shall also be permitted.
2. Heavy grade rubber mats/pads will be used within the bed of the trucks. These mats will help attenuate initial impact noise generated when an excavator drops rock and debris into the bed of the truck. These mats must be maintained and/or replaced as necessary.
3. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards.
4. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
5. Equipment shall be shut off and not left to idle when not in use.
6. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the project site during all project construction.
7. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.

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8. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (7:00 am to 7:00 pm on weekdays, and 8:00 am to 5:00 pm on Saturdays).
9. Limit the use of heavy equipment or vibratory rollers and soil compressors along the project boundaries to the greatest extent possible. It is acknowledged that some soil compression may be necessary along the project boundaries.
10. Any jackhammers, pneumatic equipment and all other portable stationary noise sources shall be shielded and noise shall be directed away from sensitive receptors.
11. For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign shall be posted at the project site with the contact phone number. This sign shall be posted at the Alessandro Boulevard frontage as well as the Barton Street frontage.

Operational noise from the warehouses will be prevented from extending out into the park/preserve by 8-foot high concrete walls located along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate sound to the sensitive habitat areas: the riparian/riverine habitat in the conservation areas between the buildings and the wilderness park/preserve to the north. An 8-foot high concrete wall will be constructed along the western, northern and eastern sides of the Parcel 1/Building A site. An 8-foot high concrete wall will be constructed along the northeast and eastern side of the Parcel 2/Building B site, along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate sound to adjacent area. The project specific Noise Study indicates operational noise will not exceed residential noise standards in the on-site conservation areas or adjacent Sycamore Canyon Wilderness Park.

Therefore, with implementation of temporary sound barriers for construction adjacent to the riparian areas during the LBVI nesting season and with construction of 8-foot high walls between the dock door areas and sensitive habitat areas, the project would not result in increased noise that would adversely affect sensitive wildlife.

Barriers

As outlined above, the warehouses will have 8-foot high concrete walls located along the outer edge of the parking areas/drive aisles to surround the truck docking and drive areas and attenuate sound to the sensitive habitat areas: the riparian/riverine habitat in the conservation areas between the buildings and the wilderness park/preserve to the north. A 42-inch high cable rail theme fence will be located along the northern property line of Parcel 1/Building A site and the Sycamore Canyon Wilderness Park. Remaining perimeters of the site include 6-to-8-foot high tubular steel

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fence. Therefore, the proposed project includes appropriate barriers to minimize unauthorized public access to the on-site conservation areas. The project will be required to implement these design features as a City condition of approval.

Grading/ Land Development

The proposed project does not include manufactured slopes in the onsite conservation area or the adjacent Sycamore Canyon Wilderness Park.

Invasives

The landscape plans will not include any of the species included on the MSHCP Table 6-2, *Plants That Should Be Avoided Adjacent To The MSHCP Conservation Area* (Volume I, Section 6, page 6-44). Through the City's Design Review process, the City has required the removal of any plants identified in Table 6.2 of the MSHCP from the Conceptual Landscape Plan.

4 MITIGATION AND EQUIVALENCY

The proposed mitigation is to replace the impacted riparian habitat with on-site and in-kind habitat establishment, and to perform enhancement for all un-impacted riparian/riverine areas. The mitigation proposed is creation (establishment) of 0.61 acre of riparian woodland of a type jurisdictional to CDFW adjacent to the existing CDFW riparian woodland area south of the project area and north of Alessandro Blvd. In addition, the project will enhance a total of 1.58 acres of riparian habitat: 0.01 acre in Drainage A, 1.34 acre in Drainage B, and 0.23 acre in Area C. Temporary impact to 0.017 acre of riparian habitat in Drainage B will be restored. In addition, the non-jurisdictional, non- riparian/riverine upland areas of slopes associated with the access road will be restored, as will be the temporary construction road. Table 3 below summarizes the mitigation for onsite riparian/riverine resources and Figure 10 provides the *Mitigation Plan*¹.

¹ The Mitigation Planting Plan was prepared in November 2018 based on the site plan at that time. Since that time there have been a few minor adjustments to the site plan in response to wildlife and regulatory agency comments. This DBESP report reflects the current impact and proposed Conservation Area acreages. The same acreages of proposed mitigation will be implemented as outlined in the Mitigation Planting Plan and in Table 3, although the location may be shifted slightly to account for the minor adjustments to the site plan.

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Table 3. Proposed Mitigation Plan

Type of Action	Drainage A (acreage)	Drainage B (acreage)	Area C (acreage)	Upland Areas (acreage)
Restoration of Temporary Impacts	0.00	0.02	0.00	0.73
Enhancement	0.01	1.34	0.23	0.00
Creation	0.00	0.00	0.61	0.00

The loss of 0.07 acre of riverine habitat, and 0.80 acre of riparian habitat will be offset by the enhancement, creation, and preservation of Drainage B and Area C that will increase the available onsite riparian habitat from 5.16 acre to 5.77 acres. The creation of riparian habitat in Area C would reconnect fragmented habitat and provide improved biological connection for foraging habitat for the least Bell's vireo and willow flycatcher. The roadway to the project site would also include culverts to provide a hydrological connection to the riparian habitat on the other side and a corridor for small wildlife species.

Details regarding the methods of establishment, restoration, and enhancement including grading, site preparation, and a planting plan for each area can be found in Appendix A, the *Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report*, which contains the project's *Mitigation Planting Plan*.

The riparian/riverine resources proposed to be enhanced and conserved in perpetuity would provide a biologically superior riparian habitat for riparian species, including least Bell's vireo and willow flycatcher. The creation of riparian habitat on the southernmost portion of the project site would provide biologically superior habitat by connecting two patches of riparian habitats allowing for more acreage of habitat and movement opportunities for small wildlife species.

A Pre-Application meeting for this project was conducted on October 10, 2018 with representatives from the Western Riverside County Regional Conservation Authority (RCA), USFWS, CDFW, USACE, the Santa Ana Regional Water Quality Control Board, the applicant and the applicant's consultants. The proposed mitigation plan was presented and discussed, with general consensus of the overall on-site mitigation plan, and with a request to include a culvert under the Parcel 1/ Building A access road to provide a hydrological connection and a corridor for small wildlife species.

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With the proposed project design and mitigation efforts described above (restoration, enhancement, and creation), the project would provide a biologically superior alternative than the existing conditions of the property.

The on-site mitigation is summarized below:

1. Enhancement of a total of 1.58 acres of riparian habitat: 0.01 acre in Drainage A, 1.34 acre in Drainage B, and 0.23 acre in Area C
2. Create (establish) 0.61 acre of in-kind riparian woodland in Area C
3. Restoration of 0.02 acre of riparian habitat in Drainage B
4. The non-jurisdictional, non- riparian/riverine upland areas of slopes associated with the access road will be restored/ replanted with native seed mix
5. The roadway/access to Parcel 1/ Building A will include culverts to provide a hydrological connection to the riparian habitat on the east side of the roadway and a corridor for small wildlife species
6. Record lettered parcels for portions of the site that will not be developed for warehouse use but designated as conservation area. Parcel A approximately 7.19 acres and is proposed to largely include the existing Restricted Property, with modifications to remove 0.81 acre for the access road to Parcel 1/ Building A from Alessandro Boulevard, and to add 1.44 acres of land, for a net increase in the Restricted Property area of 0.63 acre. Parcel B is 5.04 acres and includes the Restricted Property on the east side of the access road to Parcel 1/ Building A. (Refer to Figure 4, *Site Plan*) Parcels A and B will be designated as Conservation Areas, with a combined total of 12.23 acres and will be managed in perpetuity by a 3rd party, anticipated to be the Rivers and Lands Conservancy, with an endowment funded by the developer. The 12.23-acre Conservation Area (Parcels A & B) do not include the access road to Parcel 1/Building A or access ramps for maintenance of the culverts under the roadway.

5 REFERENCES/ APPENDICES

Appendix 1 - Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report, Sycamore Hills Distribution Center Project, Riverside County, California: WOOD. December 18, 2020.

Appendix A: Plant Species

Appendix B: Vertebrate Species List

Appendix C: Photographs

Appendix D: Jurisdictional Delineation

Appendix E: Focused Surveys for the Southwestern Willow Flycatcher and Least Bell's Vireo

Appendix F: Mitigation Planting Plan

Appendix 2 – 2020 Least Bell's Vireo, Southwestern Willow Flycatcher & Yellow-billed Cuckoo Survey Results for the Sycamore Hills Distribution Center, Riverside, California, Kidd Biological, Inc. August 2020.

6 FIGURES

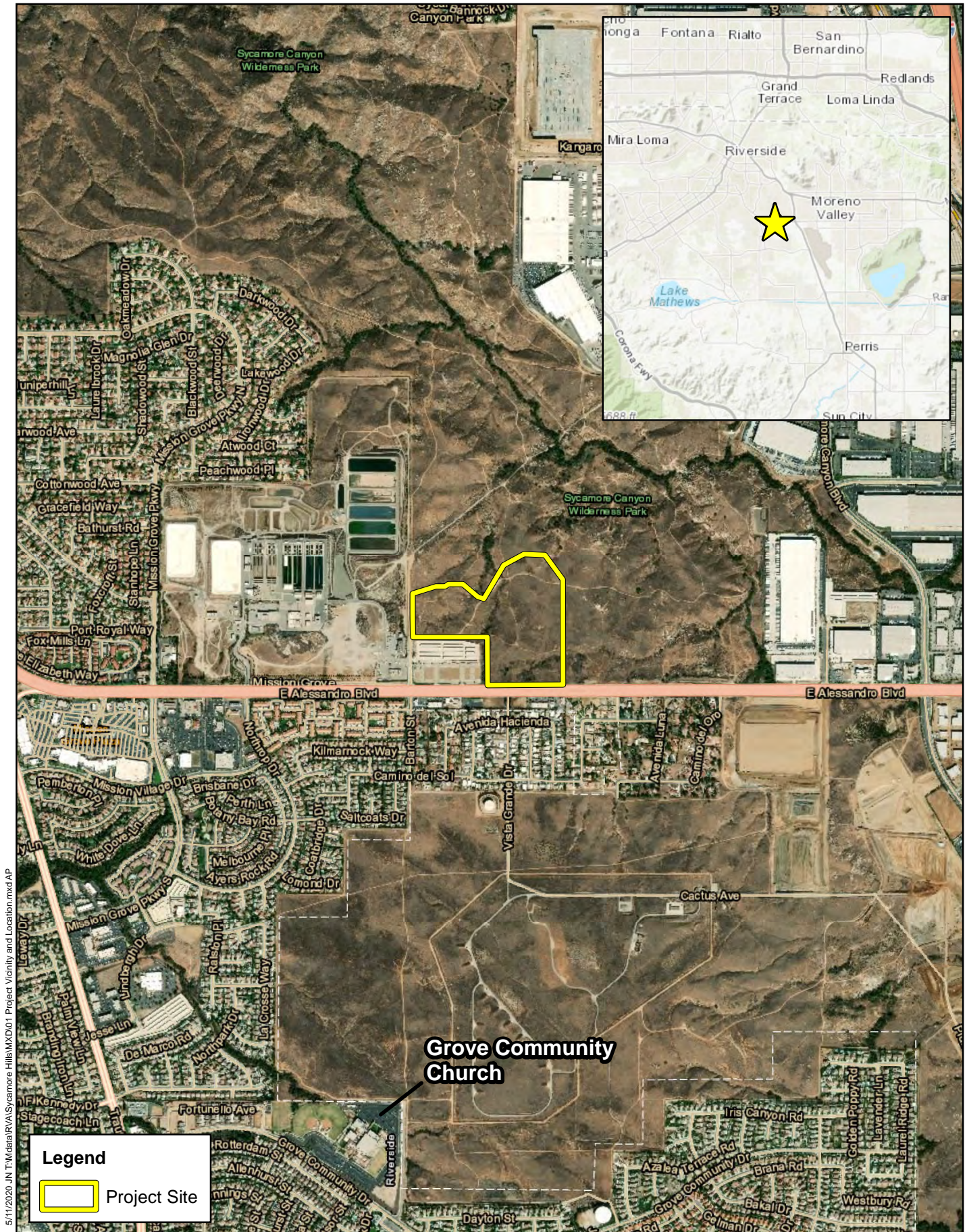


Figure 1

5/12/2020 JN T:\Mdata\RVAS\Sycamore Hills\MXD02 Project Site Aerial Photo.mxd AP



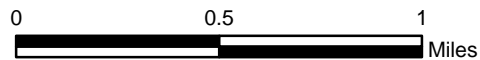
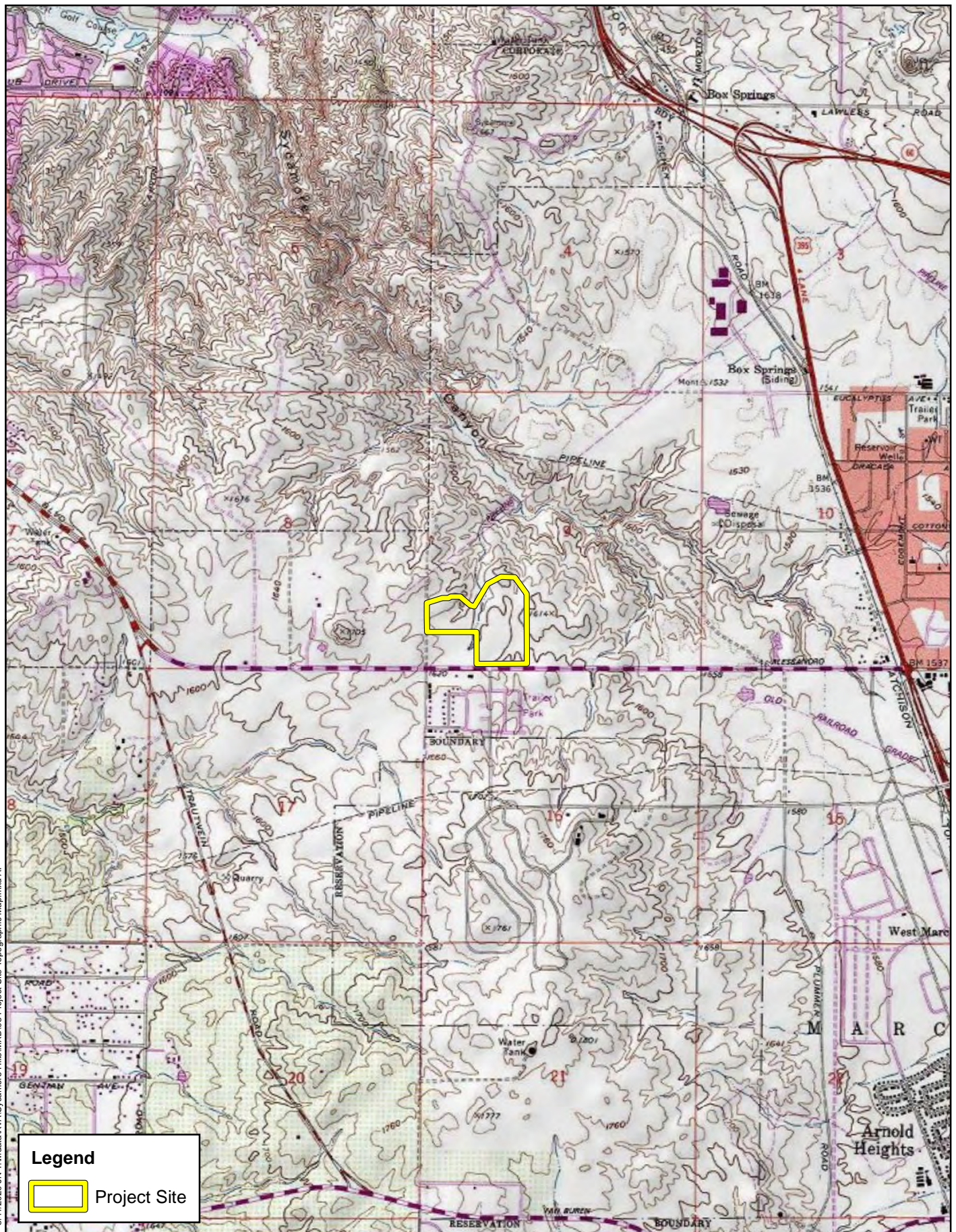
0 500 1,000 Feet

Source: Nearmap, January 2020

SYCAMORE HILLS DISTRIBUTION CENTER PROJECT Project Site Aerial Photo

Figure 2

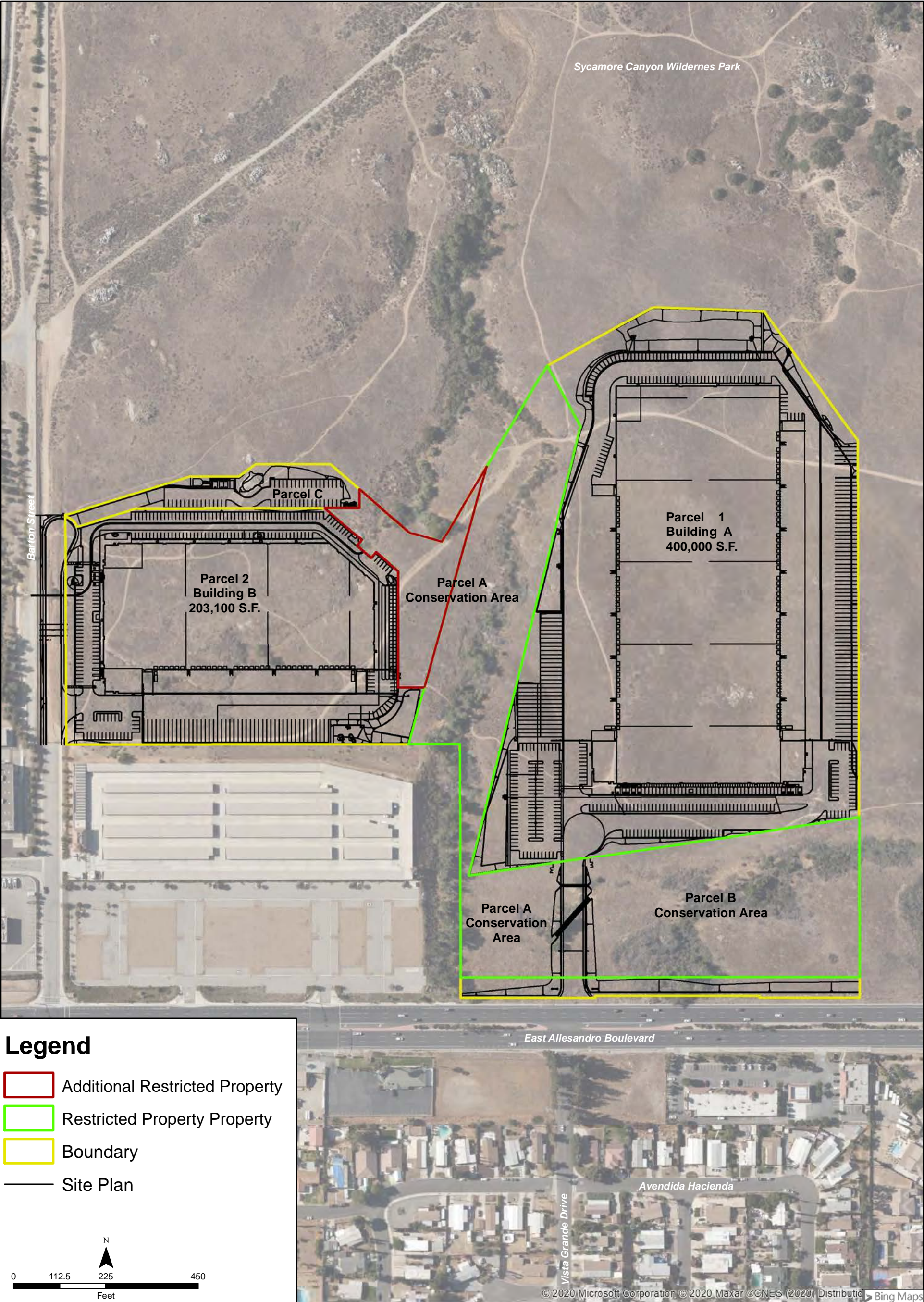
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Source: Esri USGS Topographic Basemap

SYCAMORE HILLS DISTRIBUTION CENTER PROJECT Project Site Topographic Map

Figure 3

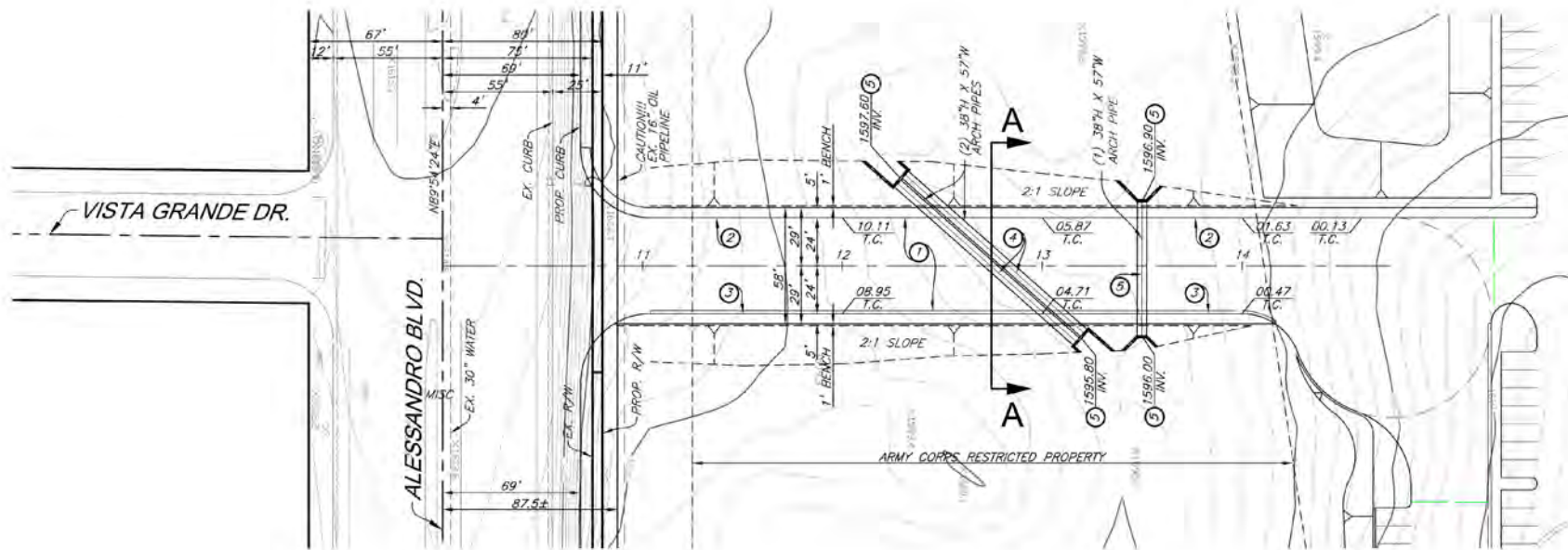


SYCAMORE HILLS DISTRIBUTION CENTER



Project Site Map

Figure 4



CONSTRUCTION NOTES

- ① CONSTRUCT P.C.C. DRIVE
- ② CONSTRUCT 6" CURB
- ③ CONSTRUCT 6" CURB & GUTTER
- ④ CONSTRUCT 38" HIGH X 57" WIDE ARCH PIPE
- ⑤ CONSTRUCT CONCRETE HEADWALL



5/11/2020 JN T:\Mdata\RVA\Sycamore Hills\Map\XD06 Soils.mxd

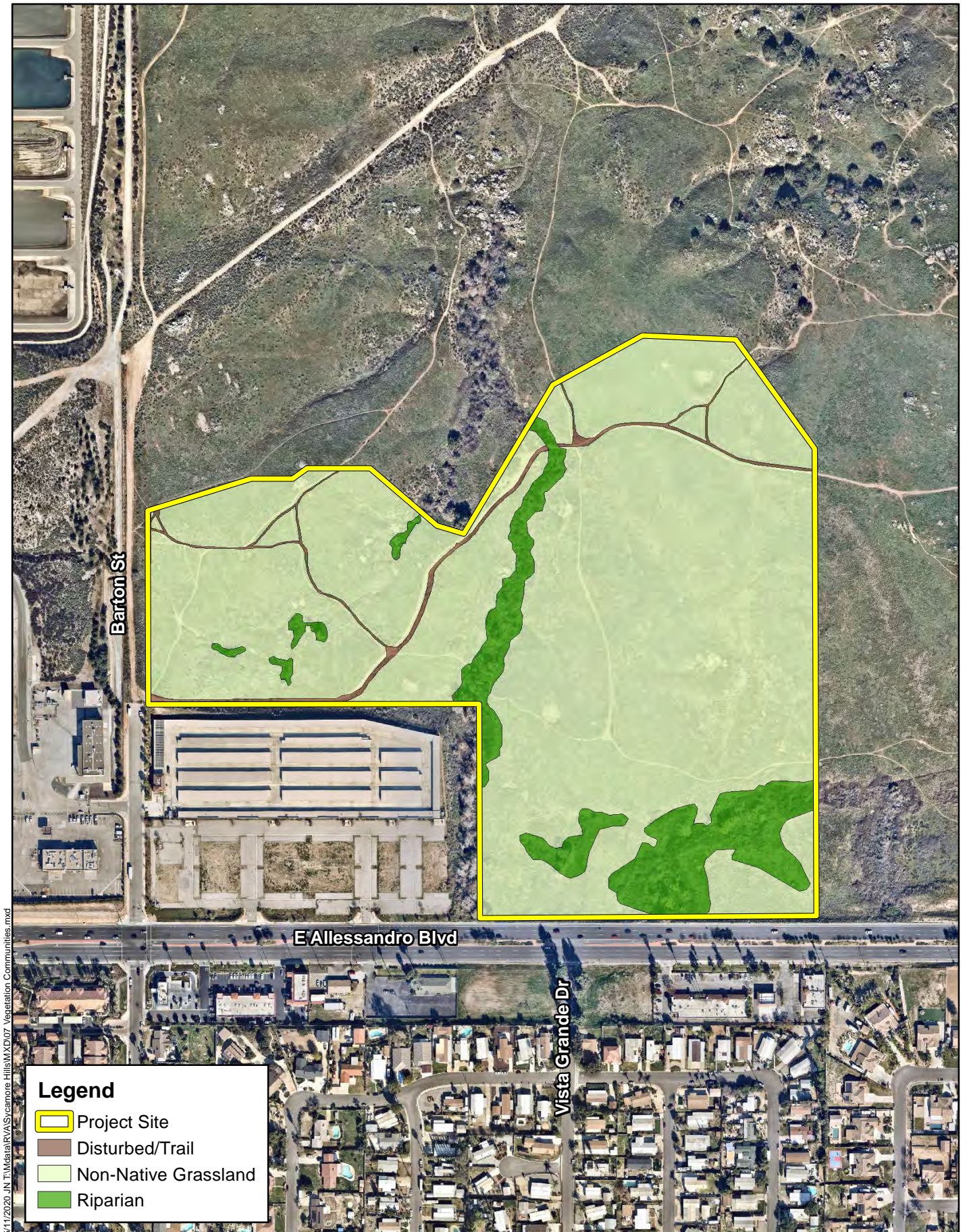


Source: Esri World Imagery, Esri, Soil Survey Geographic Database (SSURGO), Natural Resources Conservation Service (NRCS)

SYCAMORE HILLS DISTRIBUTION CENTER PROJECT

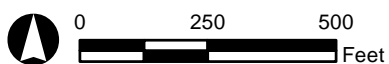
Soils

Exhibit 6





5/12/2020 JN T:\Mdata\RVAS\camore Hills\MXD\08 Riparian Riverine Areas.mxd

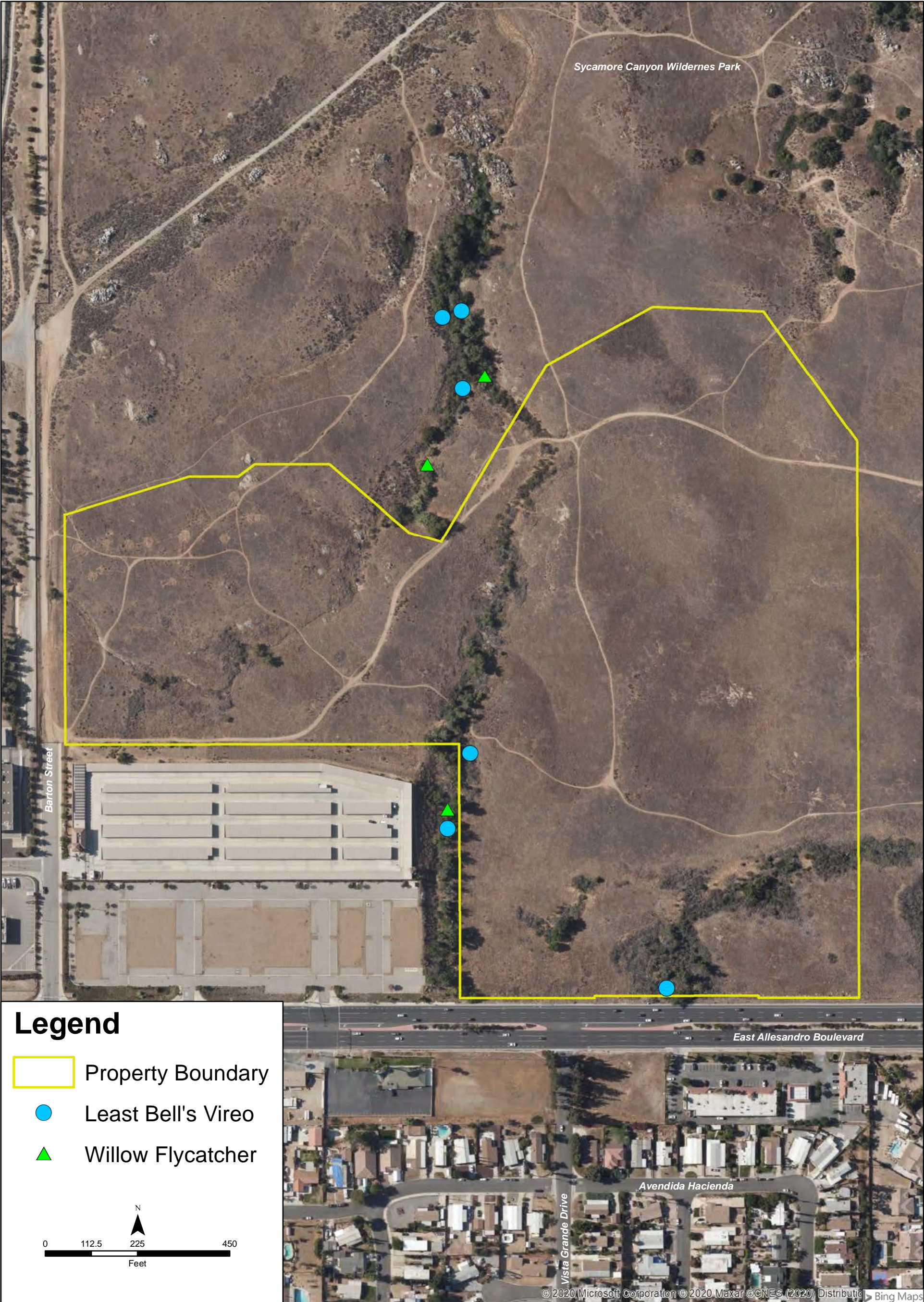


Source: Esri World Imagery, Wood PLC

SYCAMORE HILLS DISTRIBUTION CENTER PROJECT

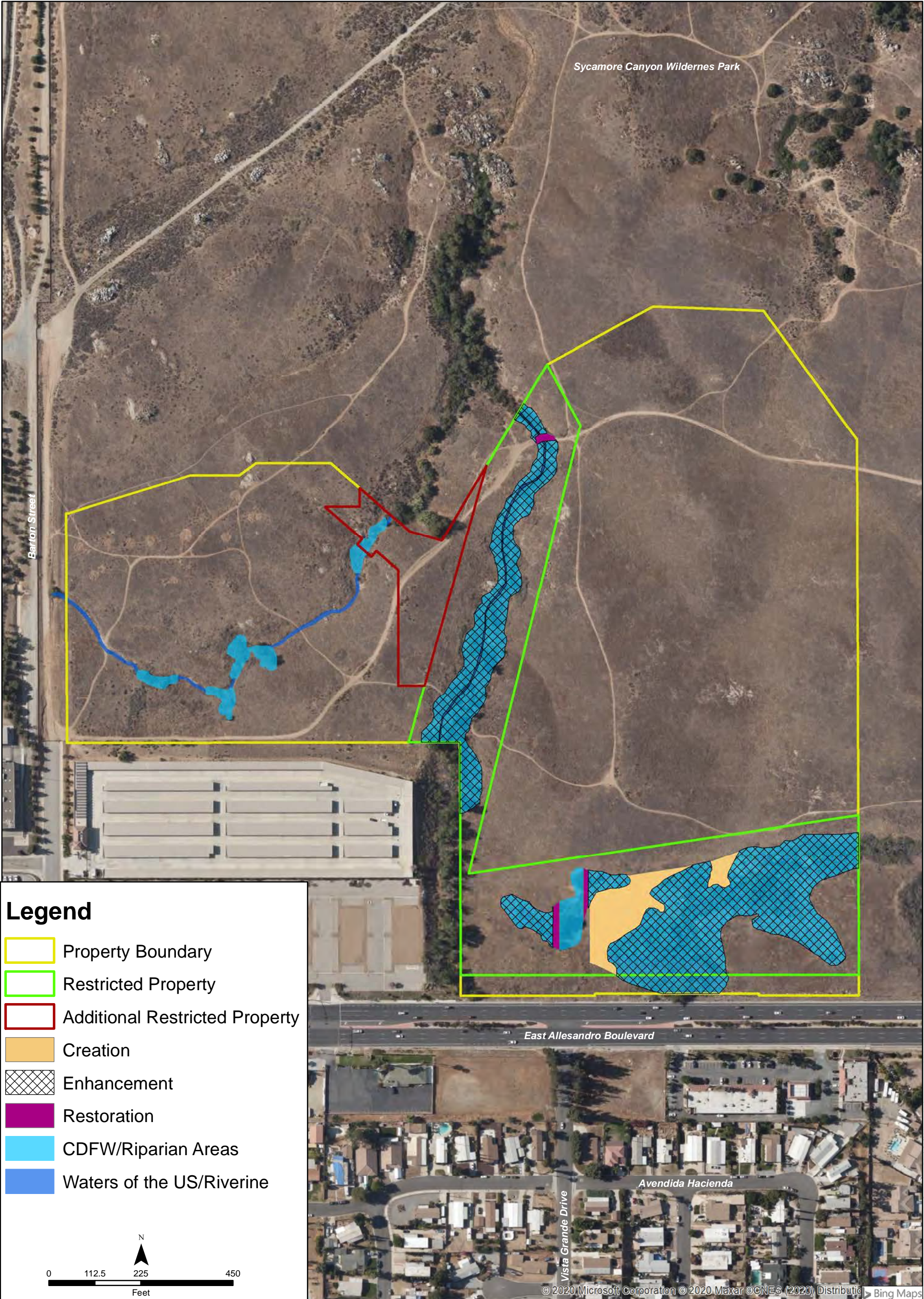
Riparian/Riverine Areas

Exhibit 8



Source: Bing Aerial Microsoft Corporation 2020, Datum: NAD 83, Coordinate Sytem: State Plane 6

SYCAMORE HILLS DISTRIBUTION CENTER



Source: Bing Aerial Microsoft Corporation 2020, Datum: NAD 83, Coordinate Sytem: State Plane 6

SYCAMORE HILLS DISTRIBUTION CENTER



Mitigation Plan

Figure 10

APPENDICES

DBESP Report

APPENDIX 1

**Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan
Consistency Report, Sycamore Hills Distribution Center Project, Riverside County, California**

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APPENDIX 2

**2020 Least Bell's Vireo, Southwestern Willow Flycatcher & Yellow-billed Cuckoo Survey
Results for the Sycamore Hills Distribution Center, Riverside, California**

2020 LEAST BELL'S VIREO,
SOUTHWESTERN WILLOW FLYCATCHER
& YELLOW-BILLED CUCKOO
SURVEY RESULTS
FOR THE
SYCAMORE HILLS DISTRIBUTION CENTER
RIVERSIDE, CALIFORNIA

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INTRODUCTION

Kidd Biological, Inc. (KBI) was contracted by Ruth Villalobos and Associates, Inc. to conduct protocol breeding season surveys for the least Bell's vireo (*Vireo bellii pusillus*), (LBVI), southwestern willow flycatcher (*Empidonax traillii extimus*), (SWFL) and western yellow-billed cuckoo (*Coccyx americana occidentalis*) (YBCU) on approximately 23 acres of potentially suitable riparian habitat within the Sycamore Hills Distribution Center Project site in Riverside, California. The surveys were performed to satisfy requirements of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), under which LBVI, SWFL, and YBCU are considered covered species. In addition, under 6.1.2 of the MSHCP, surveys for these species must be conducted when there is potential for impacts to riparian habitats. The surveys followed protocol established for these species by the U.S. Fish and Wildlife Service (USFWS). Biologist Angela Johnson (TE 59592B-2) conducted all surveys for the three species.

BACKGROUND

The proposed project is to construct an industrial warehouse development on three parcels [Assessor Parcel Numbers (APNs) 263-060-022, 263-060-024, 263-060-026], totaling 48.64 gross acres (project site), of which, 23 acres contain willow riparian scrub habitat (survey area). The property is located at the northeast corner of Barton Street and Alessandro Boulevard in the City of Riverside (City), immediately south of the Sycamore Canyon Wilderness Park. The property is spread in an east to west direction with natural rolling land descending gradually from a west to east direction. There are two jurisdictional drainages on the site. The undeveloped parcels are covered with a low to moderate growth of vegetation cover consisting of natural grasses and weeds with some granitic rock outcrops.

PROJECT DESCRIPTION

The project proposes subdividing the site into two parcels (Parcels 1 and 2), and three lettered parcels (Parcels A, B, and C). Each parcel is proposed to be developed with a high cube transload short-term warehouse building (Buildings A and B). Building A, a 400,000 square foot warehouse, will be constructed on Parcel 1. Building B, a 203,100 square foot warehouse, will be constructed on Parcel 2. Associated improvements include parking, fire lanes, fencing and walls (including retaining walls), landscaping, and water quality treatment areas.

Parcels A and Parcel B consist of existing Restricted Property of natural land, with a supporting jurisdictional feature, totaling approximately 11.6 acres. A 0.67-acre driveway will be constructed

through the Restricted Property to provide street access from Alessandro Boulevard to Parcel 1, which would reduce the Restricted Property to 10.93 acres. However, 1.44 acres will be added to Parcel A to mitigate this loss, resulting in a total of 12.37 acres of Restricted Property (net gain of 0.77 acres). A Conservation Easement is proposed to be placed over the amended 12.37 acres of Restricted Property.

A trailhead parking lot is proposed on Parcel C, totaling 1.18 acres, for access to the Sycamore Canyon Wilderness Park. Improvements include a parking lot, sidewalk, shade structure, bike rack, drinking fountain, fencing, and a Fire Department access gate. Parcel C will be dedicated to the City.

SURVEY LOCATION

The site is located in western Riverside County within Sycamore Hills, southeast of the Interstate 215 and State Route 60 (Moreno Valley Freeway) interchange. The site is west of the City of Moreno Valley, north of the City of Perris, east of the City of Corona and south of Sycamore Canyon Park. It can further be described as being located within the Section 9 of Township 3 South, Range 4 West of the Riverside East, California U.S. Geological Survey (USGS) 7.5-minute quadrangle map (See Figures 1 and 2).

HABITAT DESCRIPTION

The approximately 48.6-acre project site is located in a mix of urban, residential, and open space habitat. The project site, including the 23-acre survey area is undeveloped, but surrounding land uses include open space to the north that is part of Sycamore Canyon Wilderness Park, a water treatment plant to the west across Barton Street, single-family residential homes and commercial development to the south across Alessandro Boulevard, a storage facility to the southwest, and vacant land to the east.

The project site has two small, linear drainages that contain riparian woodland habitat and are moderately suitable for sensitive riparian bird species: the canopy throughout consists largely of red/arroyo willow (*Salix, spp.*), Fremont cottonwood (*Populus fremontii*), and black willow (*Salix gooddingii*), with an understory of mulefat (*Baccharis salicifolia*), coyote brush (*Baccharis pilularis*), red/arroyo willow, black willow, and desert broom (*Baccharis sarothroides*) in the eastern survey area. Although riparian woodland habitat is present, the small habitat size may only support LBVI as they have been observed here in previous surveys. The lack of a permanent water supply, the noise from Barton Street, and high-density urbanization of the area likely limits

the use of this area for nesting by the SWFL and YBCU which are less tolerant of human disturbance, however they may use this habitat as a migratory stop-over.

The remaining habitat in the project site is comprised of annual grasslands that are not suitable for sensitive riparian bird species.

SPECIES DESCRIPTION, DISTRIBUTION, AND STATUS

LEAST BELL'S VIREO

The LBVI is a small greenish-gray songbird with a white underbelly, two white wing-bars, and white spectacles across the lores. The LBVI was once widespread throughout the Central Valley and other low elevation river valleys of California. Historically, the LBVI's breeding range extended from the interior of northern California to northwestern Baja California (Grinnell and Miller 1944). The LBVI typically prefers riparian areas dominated by willows of mixed age composition. These areas frequently include other trees such as western cottonwood and California sycamore. It has been noted that the most critical structural component of LBVI's habitat in California was the presence of a dense understory of young willows, mulefat, California wild rose (*Rosa californica*), and a variety of other shrubby species (Goldwasser 1981, Franzreb 1989). Territory sizes of LBVI in California have been reported to range from 0.3-1.3 hectares (0.75-3.2 acres) (Kus, et al. 2020). It was noted by Newman (1992) that "variability in territory size was unrelated to vegetation structure, and did not influence reproductive success of pairs in Southern California."

Within western Riverside County the core populations are primarily Prado Basin and the Santa Ana River, with other smaller populations in Temescal Wash, Mockingbird Canyon, Murrieta Creek, Temecula Creek, Lake Skinner (including Rawson Canyon), Vail Lake, Wilson Creek, and San Timoteo Canyon. According to the MSHCP "other geographic locations that are recorded within the University of California, Riverside database and by the USFWS include: Lake Elsinore, March Air Reserve Base, Meadowbrook, Canyon Lake, De Luz Creek, Potrero Creek, Bautista Creek, and Reche Canyon (USFWS 1998, CNDDDB 2020)." The LBVI breeding season in California starting with first egg laid to date of last fledge is from March 28 to August 10 (Kus et al. 2020).

Loss and degradation of breeding habitat has been the greatest contributor to the decline of the LBVI and SWFL. Habitat conversion for agricultural purposes has removed much of the original riparian woodland, and flood control measures and channelization have further depleted the riparian habitats used by the LBVI and SWFL as well as other riparian birds. Another major contributing factor to the decline of the LBVI and SWFL was the introduction of the brown-headed cowbird (*Malothrus ater*) to California around 1890. Estimates from a 1989 study concluded that

anywhere from 47% to 100% of all LBVI nests contained cowbird eggs (Franzreb 1989). The significant reduction in the population size and range of the vireo resulted in it being listed as a state endangered species in June 1980, and federally listed as endangered in May 1986.

LBVI SURVEY METHODS

Presence/absence surveys were conducted according to the USFWS *Least Bell's Vireo Survey Guidelines* (2001). All potentially suitable LBVI habitat within the survey areas were surveyed eight (8) times between April 10 and July 31, 2020 with at least 10 days between survey visits. The surveys were conducted during the morning hours during appropriate weather conditions. Some survey days continued into the early afternoon if weather conditions and bird activity remained conducive for bird detection. Less than three linear kilometers (km) (1.9 miles) of habitat were surveyed per day. LBVI surveys were conducted passively, listening for vireo songs, calls, whisper songs, scolds and visually looking for adults and juveniles. Any nesting behavior was also noted.

LBVI observations were recorded in a field notebook, and GPS readings of the locations were taken during the surveys. If an exact point could not be taken, estimated points were determined post-survey. Numbers and locations of paired or unpaired territorial males, and the ages and sexes of encountered vireos (when discernible) were noted. Individual LBVI were also checked for colored leg bands.

SOUTHWESTERN WILLOW FLYCATCHER

SPECIES DESCRIPTION, DISTRIBUTION, AND STATUS

The SWFL is a small, insectivorous passerine that migrates north in the spring from South America, Mexico, and Central America, to breed in the southwestern desert riparian habitats of California, Arizona, New Mexico, and Texas. Within western Riverside County there are very few reported occurrences with the majority occurring within the Prado Basin. The most current estimated number of range-wide flycatcher territories is 1,299 (288 breeding pairs) (USFWS 2014, Durst et al. 2008). Based on the USFWS' 5-year review of this species, it is reported that there are several factors that may contribute to the species decline within its range. The most concerning is the spread of the tamarisk leaf beetle. Although tamarisk is a non-native species, it provides habitat for the SWFL and seems to be more tolerant of human disturbances than native riparian species such as willows and cottonwoods (USGS 2014). The loss of tamarisk without conserving and/or restoring native riparian habitats could cause large areas of currently suitable habitat to be lost.

Like the LBVI, the SWFL occurs in riparian woodland habitat that is characterized by a dense growth of willows, mulefat, arrowweed (*Pluchea* sp.), cottonwood, sycamore (*Platanus* sp.), and tamarisk. In addition to willow riparian woodland, the SWFL also nests in coast live oak woodland on the upper San Luis Rey River, San Diego County, California; in dense stands of tamarisk on the lower Colorado River, Imperial and Riverside Counties, California. Surface water or saturated soils are usually present in or adjacent to nesting thickets. Like the LBVI, the loss of habitat and parasitism by cowbirds are thought to be the major reasons for the declining numbers of SWFL (Pike et al, 2004, Kus 2002). The southwestern subspecies of willow flycatcher was federally listed as endangered in February 1995 (USFWS 1995). Critical habitat was established in 2005, and then revised in 2013. California Department of Fish and Wildlife (CDFW) determined that all subspecies in California are endangered under the California Endangered Species Act. Determining subspecies is based on the region the flycatcher is found breeding as they are nearly indistinguishable by site or call. In Riverside County, breeding willow flycatchers are considered the federally-listed SWFL (Unitt 1987, Browning 1993, Paxton 2000). Declines in this species are mostly contributed to a loss of riparian habitat throughout the southwest. It is estimated that as much as 90% of riparian habitat has been lost in this region, and the remaining habitats have been degraded due to flood control and dam construction (Busch and Smith 1995). The SWFL breeding season in California starting with first egg laid to date of last fledge is from May 25 to August 27 (Sedgwick 2020).

SWFL SURVEY METHODS

Presence/absence surveys were conducted according to the July 11, 2000 revised protocol for project-related surveys and the general guidelines described by Sogge *et al.* (2010). All potential SWFL habitat and riparian areas within the survey area were surveyed five (5) times: one (1) visit during the 1st Survey Period (May 15 to May 31), two (2) visits during the 2nd Survey Period (June 1 to June 24), and two (2) visits during the 3rd Survey Period (June 25 to July 17). Each visit was at least five (5) days apart. Surveys of the sites were conducted during morning hours and when the temperature exceeded 13°C (55°F). Less than 1.9 miles (3 km) of habitat were surveyed per day. Surveys for the SWFL, LBVI, and YBCU were conducted concurrently, however the survey for each species was done on separate passes (e.g. LBVI was surveyed from south to north transect, SWFL were surveyed for during the north to south transect, and YBCU from south to north transect). The habitats size and linear shape made it possible to survey for each species within published protocol time frames using this method. Surveys were conducted within all potential habitat patches. If a singing SWFL was not heard in an area after one to two minutes, a permitted biologist played a taped vocalization for 15 to 30 seconds and observed the area for responding SWFLs. This was repeated every 20 to 30 meters. If a SWFL was detected, tape playing was discontinued.

Any SWFL observations would be recorded in a field data form (found in Appendix C), and GPS readings of the locations were taken during the surveys. If this species was observed, their behavior, numbers, and locations of paired or unpaired birds; ages; and sexes of encountered SWFL would be noted. The biologist also checked for leg bands.

WESTERN YELLOW-BILLED CUCKOO

SPECIES DESCRIPTION, DISTRIBUTION, AND STATUS

The YBCU is an extremely rare bird in California, with less than 50 pairs found during a statewide survey in 1986-1987, and no indication of more recent population increases. Most of California's YBCU are found in two areas: along the Sacramento River between Red Bluff and Colusa, and along the South Fork Kern River near Weldon (Laymon *et al.* 1997). There is only one known breeding YBCU pair in Riverside County reported in 2001 (Riverside County 2003). There are no recent documentations of this species in western Riverside County.

YBCU are long distance migrants and return to California from their South American wintering areas in late May and June. Occupied riparian forests are usually larger than 25 acres. Detection of YBCU is difficult, as they have large home ranges in dense willow and cottonwood forests and call infrequently. Recorded playback of the species' calls is the recommended method for conducting surveys. YBCU was listed as endangered by the State of California in 1988 and

federally listed as threatened in 2014. The YBCU breeding season in California starting with first egg laid to date of last fledge is from June 21 to August 1 (Hughes 2020).

YBCU SURVEY METHODS

Survey methods for YBCU followed the April 2015 *A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo* (Halterman et. al 2015).

Surveys were conducted in all potential YBCU habitat within the survey areas. Each survey area was surveyed a minimum of four (4) times over three (3) survey periods: minimum of one (1) visit during the 1st Survey Period (June 15 to July 1), minimum of two (2) visits during the 2nd Survey Period (July 1 to July 31), and a minimum of one (1) visits during the 3rd Survey Period (July 31 to August 15). Each survey visit was conducted at least 12 days apart, but no more than 15 days apart. Surveys were conducted in early morning hours beginning just before sunrise and ending no later than 1100, or until temperatures reached 40°C/104°F, whichever came first.

In order to increase the likelihood of detecting YBCU, the surveyor slowly walked appropriately spaced transects, according to size of habitat patch, while stopping every 100 meters and watching and listening for YBCU. If a YBCU was not heard or seen after one minute, the surveyor broadcast a series of five recorded YBCU contact/“kowlp” calls, spaced one minute apart. If a YBCU was heard or observed then the next stopping point was spaced 300 meters from the last in order to avoid duplicate mappings of the same bird. As recommended by the protocol, surveys for YBCU were not conducted simultaneously with LBVI or SWFL surveys.

Any YBCU observations would be recorded and mapped in a field data form (found in Appendix D) and GPS readings of the locations would be taken during the surveys in accordance with the protocol.

RESULTS

Surveys for LBVI, SWFL, and YBCU were conducted where it was determined to support suitable habitat by permitted biologist Angela Johnson between April 21 and August 9, 2020. Based on the level of effort and environmental conditions all surveys were considered valid as they followed published protocols.

Two (2) territories with counter-singing LBVI males were present on May 5 during the second survey; however, for all subsequent surveys only one male remained throughout the 2020 season. This individual was observed only at the northernmost part of the survey area and was often seen with a mate. Later in the season (survey 6), the pair was also seen with a fledgling.

Surveys for SWFL and YBCU were conducted in the riparian woodland habitat along the north-south drainage. The habitat in the eastern portion of the survey area was deemed not suitable due to the lack of canopy present and small patch size. No SWFL or YBCU were detected within the survey area during the 2020 season. The marginal habitat makes it unlikely that this site will be used in the future by these two species.

A brief description of LBVI, SWFL and YBCU survey results for each of the survey area is provided below. Data sheets for the SWFL and YBCU surveys can be found in Appendix C-D.

TABLE 1. SURVEY CONDITIONS

Survey #	Date	Surveyor	Start Time	Stop Time	Weather	Temp. Range (°f)	# LBVI Detected	# SWFL Detected	# YBCU Detected
1	4/21/20	AJ	0600	0800	50-100% CC, wind 3-6 mph	52-57	0	N/A	N/A
2	5/5/20	AJ	0641	0839	0% CC, wind 1 mph	60-75	3	N/A	N/A
3*	5/19/20	AJ	0557	0800	40-50% CC, wind 3-5 mph	50-55	0	0	N/A
4*	6/2/20	AJ	0620	0815	50-70% CC, wind 1-3 mph	67-71	1	0	N/A
5*	6/16/20	AJ	0522	0725	100% CC, wind 3 mph	56-58	1	0	N/A

(6*)	6/30/20	AJ/ML	0530	0800	100% CC, wind 2-3 mph	60-63	3	0	0
(7*)	7/14/20	AJ	0551	0755	30-100% CC, wind 1-2 mph	64-68	2	0	0
(8)	7/28/20	AJ	0552	0718	0% CC, wind 1 mph	59-64	1	N/A	0
(4)	8/9/20	AJ	0702	0819	0% CC, wind 0-2 mph.	65-70	N/A	N/A	0

* Indicates SWFL and LBVI surveys conducted on the same day. Parentheses (N) Indicates YBCU survey.

TABLE 2. LBVI LOCATIONS (UTM- ZONE 11S)

Survey Area	Northing	Easting
LBVI Territory 1	448651 m E	3756594 m N
LBVI Territory 2	448868 m E	3756685 m N
When LBVI were detected in numerous locations, only the central point of the polygon is given.		

OTHER LISTED AND SENSITIVE SPECIES OBSERVED

This survey focused on three species: the LBVI, SWFL and YBCU; however, incidental observation(s) of all listed and sensitive species were documented. There are various definitions of “sensitive” in accordance with State and Federal Agencies. The following is a brief summary of the status of the species that were observed on site (all definitions were taken directly from the CDFW Biogeographic Data Branch’s Special Animals list [August 2020] unless otherwise indicated):

CDFW California Species of Special Concern (SSC): The Department has designated certain vertebrate species as “Species of Special Concern” because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as “SSC” is to halt or reverse their decline early enough to secure their long-term viability.

CDFW: Watch List (WL): The birds on this Watch List are 1) not on the current Special Concern list but were on previous lists and they have not been state listed under CESA; 2) were previously

state or federally listed and now are on neither list; or 3) are on the list of “Fully Protected” species. **CDFW California State Threatened (ST):** Species that have been designated at risk of extinction by the California Endangered Species Act (CESA) after a formal listing process.

USFWS Federally Endangered (FE): A species in danger of extinction in a portion or all of its range.

Sensitive species observed included:

TABLE 3. OTHER LISTED AND SENSITIVE SPECIES OBSERVED

Common Name	Scientific Name	Status
Cooper’s Hawk	<i>Accipiter cooperi</i>	WL
So. California Rufous-crowned Sparrow	<i>Aimophila ruficeps canescens</i>	WL
Stephens’ Kangaroo Rat	<i>Dipodomys stephensi</i>	FE, ST
San Diego Black-tailed Jackrabbit	<i>Lepus californicus bennettii</i>	SSC

BROWN-HEADED COWBIRDS AND INVASIVE SPECIES

Brown-headed cowbirds (BHCO) were not detected (seen or heard) during any of the surveys in 2020. No cowbird traps were noted at any of the survey locations.

The only non-native wildlife species detected within the survey areas were rock pigeons (*Columba livia*), and house sparrows (*Passer domesticus*). Neither of these birds poses a significant threat to the conservation of the LBVI, SWFL, or YBCU.

There were five invasive plant species within the survey area: Peruvian pepper (*Schinus molle*), Brazilian pepper (*S. terebinthifolia*), tree tobacco (*Nicotiana glauca*), giant reed (*Arundo donax*), and salt cedar (*Tamarisk* sp.). None of these species was found to be heavily abundant in the survey area. Giant reed was not found in great density, though it is present in the northern section of the survey area. The presence of giant reed has a greater effect on ecosystem health as the diversity and abundance of leaf/aerial insects are significantly decreased in areas overrun by giant reed (Dudley and Dudley, 2003). For insect-eating birds such as the SWFL and LBVI, the spread of giant reed could cause a significant decrease in food availability.

In the southern portion of the survey area, a few salt cedars were also present. Although an invasive plant, salt cedar is regularly used by SWFLs and other riparian birds for foraging and nesting. Although this species out-competes native plant species, the small extent of salt cedar in this area does not likely have a significant impact on the population of sensitive birds in the area. However, if salt cedar should spread and dominate a substantial portion of the riparian habitat in the surrounding area, the diversity of invertebrates in the willow riparian habitat may decline. The result of decreased abundance and diversity of invertebrates likely affects species at higher trophic levels (Baily et al 2001).

CONCLUSION

A total of two (2) least Bell's vireo territories were detected during the 2020 surveys; however, one territory did not remain active for the entire season. The primary territory fledged at least one young. No southwestern willow flycatchers or yellow-billed cuckoo were detected.

Based on the presence of a State and Federally Endangered Species on the site, consultation with the U.S. Fish and Wildlife Service (USFWS) will be required for any impacts to the habitat, including potential indirect impacts which could occur during the construction phase. Consultation with the USFWS will be conducted under Section 10 of the Endangered Species Act. During the consultations, avoidances measures and possible mitigation will be required.

Other sensitive species observed included the Cooper's hawk, southern California rufous-crowned sparrow, Stephens' kangaroo rat, and San Diego black-tailed jackrabbit. These species are addressed in the Biological Resources and Western Riverside County MSHCP Consistency Report prepared by Wood Consultants.

CERTIFICATION

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

Date: September 10, 2020 Signed:


Angela Johnson TE 59592B-2

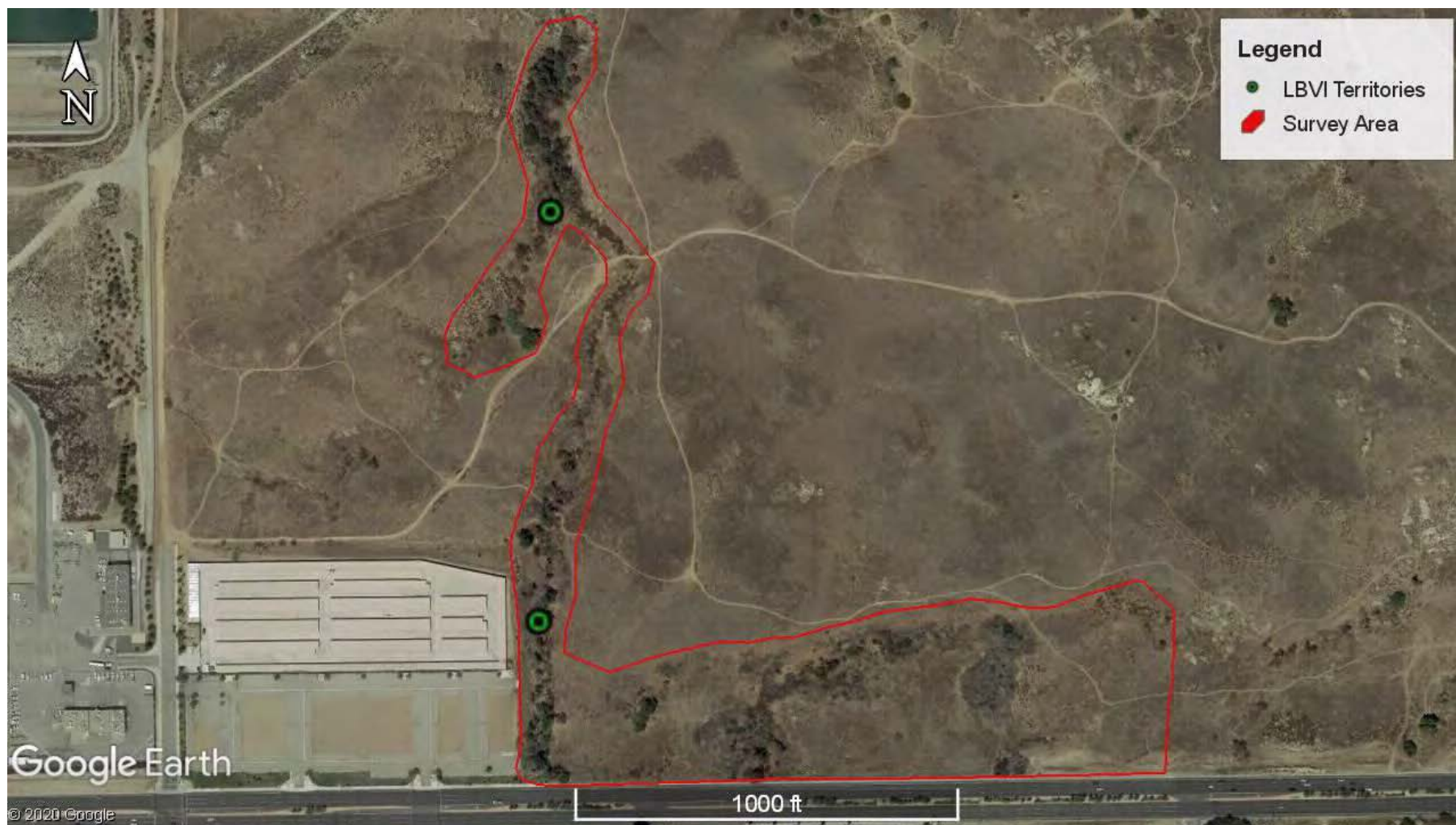
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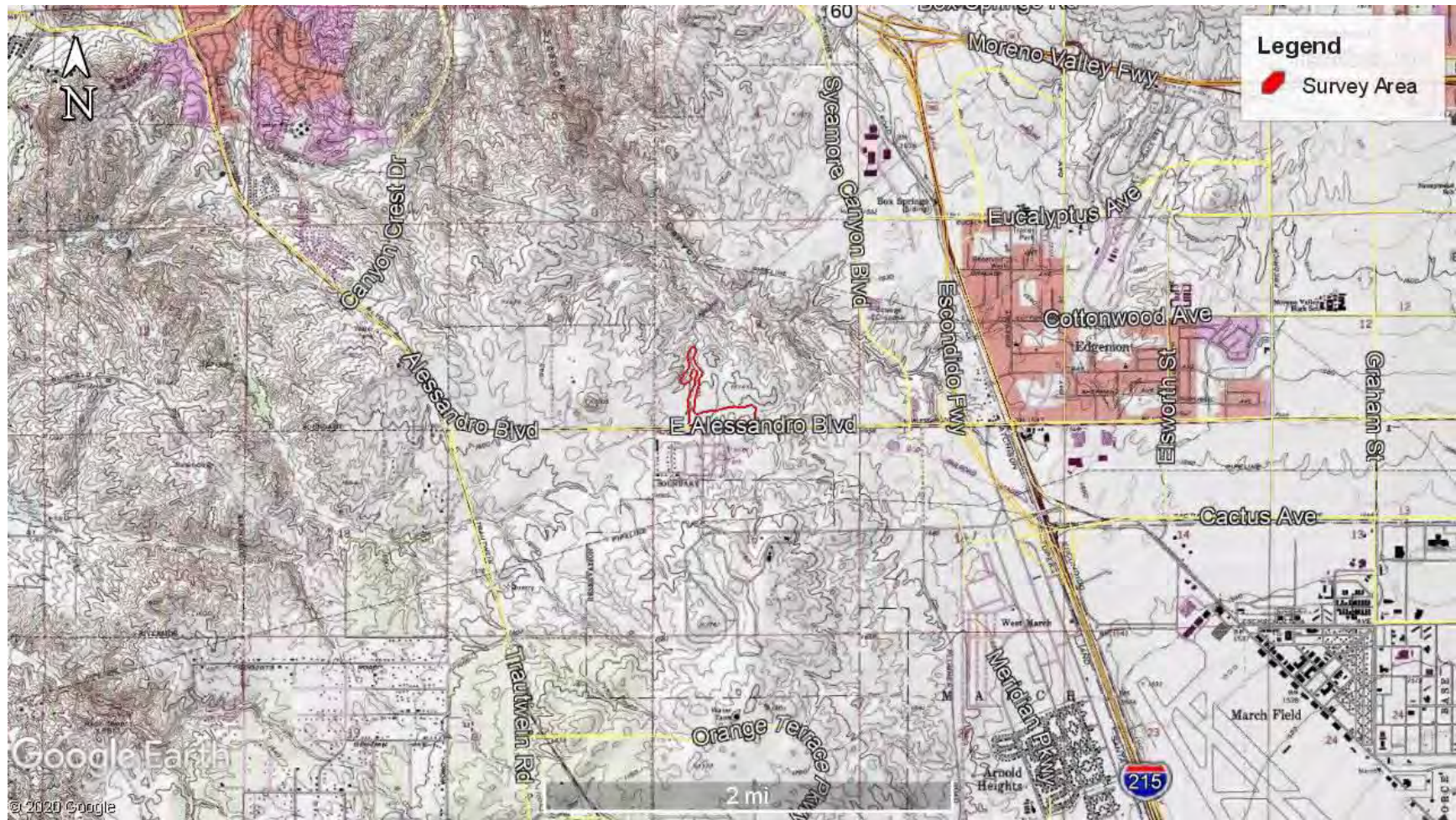
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APPENDIX A- FIGURES





APPENDIX B- SPECIES COMPENDIUM

AVES

Anseriformes – Ducks, Geese, and Swans

Anatidae - Ducks, Geese, and Swans

Mallard (*Anas platyrhynchos*)

Galliformes – Turkey, Grouse, Chicken, and New World Quail

Odontophoridae – New World Quail

California Quail (*Callipepla californica*)

Accipitriformes – Hawks, Kites, Eagles, and Allies

Accipitridae – Hawks, Kites, Eagles, and Allies

§ Cooper's Hawk (*Accipiter cooperii*)

Red-tailed Hawk (*Buteo jamaicensis*)

Red-shouldered Hawk (*Buteo lineatus*)

Columbiformes - Pigeons, and Doves

Columbidae - Pigeons and Doves

Mourning Dove (*Zenaida macroura*)

* Rock Pigeon (*Columba livia*)

Cuculiformes – Cuckoos and Allies

Cuculidae – Cuckoos and Allies

Greater Roadrunner (*Geococcyx californianus*)

Strigiformes – Owls

Strigidae – Owls

Great Horned Owl (*Bubo virginianus*)

Apodiformes – Swifts and Hummingbirds

Apodidae – Swifts

White-throated Swift (*Aeronautes saxatalis*)

Trochilidae – Hummingbirds

Anna's Hummingbird (*Calypte anna*)

Allen's Hummingbird (*Selasphorus sasin*)

Piciformes – Woodpeckers and Allies

Picidae – Woodpeckers and Allies

Nuttall's Woodpecker (*Picoides nuttalli*)

Falconiformes – Falcons and Caracara

Falconidae – Falcons

American Kestrel (*Falco sparverius*)

Passeriformes - Passerine Birds

Tyrannidae - Tyrant Flycatchers

Black Phoebe (*Sayornis nigricans*)

Say's Phoebe (*Sayornis saya*)

Ash-throated Flycatcher (*Myiarchus cinerascens*)

Vireonidae – Vireos

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

Corvidae - Crows and Jays

Common Raven (*Corvus corax*)

American Crow (*Corvus brachyrhynchos*)

Hirundinidae – Swallows

Northern rough-winged Swallow (*Stelgidopteryx serripennis*)

Cliff Swallow (*Petrochelidon pyrrhonota*)

Barn Swallow (*Hirundo rustica*)

Aegithalidae - Long-tailed Tits and Bushtits

Bushtit (*Psaltiriparus minimus*)

Troglodytidae – Wrens

Rock Wren (*Salpinctes obsoletus*)

House Wren (*Troglodytes aedon*)

Bewick's Wren (*Thryomanes bewickii*)

Poliophtilidae – Gnatcatchers

Blue-gray Gnatcatcher (*Poliophtila caerulea*)

Mimidae - Mockingbirds and Thrashers

California Thrasher (*Toxostoma redivivum*)

Northern Mockingbird (*Mimus polyglottos*)

Parulidae - Wood-Warblers

Common Yellowthroat (*Geothlypis trichas*)

Wilson's Warbler (*Cardellina pusilla*)

Passerellidae – New World Sparrows

White-crowned Sparrow (*Zonotrichia leucophrys*)

Savannah Sparrow (*Passerculus sandwichensis*)

Song Sparrow (*Melospiza melodia*)

§ S. California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

California Towhee (*Melospiza crissalis*)

Spotted Towhee (*Pipilo maculatus*)

Passeridae – Old World Sparrows

* House Sparrow (*Passer domesticus*)

Cardinalidae – Cardinals, Grosbeaks, and Allies

Blue Grosbeak (*Passerina caerulea*)

Icteridae – Blackbirds, Orioles, and Allies

Hooded Oriole (*Icterus cucullatus*)

Fringillidae - Fringilline and Cardueline Finches and Allies

House Finch (*Haemorhous mexicanus*)

Lesser Goldfinch (*Spinus psaltria*)

MAMMALIA

Lagomorpha – Hares, Rabbits, and Pika

Leporidae – Hares and Rabbits

Desert Cottontail (*Sylvilagus audubonii*)

§ San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*)

Rodentia – Rodents

Sciuridae – Squirrels

California Ground Squirrel (*Otosperophilus beecheyi*)

Heteromyidae – Pocket Mice and Kangaroo Rats

§ Stephens' Kangaroo Rat (*Dipodomys stephensi*)

Geomyidae – Gophers

Botta's Pocket Gopher (*Thomomys bottae*)

Carnivora – Carnivores

Canidae – Wolves, Dogs, and Coyotes

Coyote (*Canis latrans*)

REPTILIA

Squamata – Lizards and Snakes

Phrynosomatidae – Lizards

Western Fence Lizard (*Sceloporus occidentalis*)

Granite Spiny Lizard (*Sceloporus orcutti*)

Western Side-blotched Lizard (*Uta stansburiana elegans*)

*Indicates non-native species

§ Indicates Sensitive Species

APPENDIX C- SWFL SURVEY DATA 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 (WFL) Survey and Detection Form (revised April 2010)

Site Name Sycamore Hills Distribution Center State CA County Riverside
 USGS Quad Name Riverside East Elevation 486 (meters)
 Creek, River, Wetland, or Lake Name Unnamed drainage
 Is copy of USGS map marked with survey area and WFL sightings attached (as required)? Yes ☒ No ☐

Survey Coordinates: Start E 471312 N 3753558 UTM Datum NAD83 See instructions
 Stop E 471791 N 3753091 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 # (Observer(s)) (Full Name)	Date (m/d/y) Survey time	Number of Adult WFLs	Estimated Number of Territories	Estimated Number of Territories	Neighb. Female? Y or N If Yes, number of nests	Comments (e.g., bird behavior, evidence of pairs or breeding, potential threats (livestock, cattle, dogs, etc.), or other if applicable. If Dietary items found, contact USFWS and State WFL coordinator)	GPS Coordinates for WFL. Document plus is an optional column for documenting individuals, pairs, or groups of birds found on each survey. Include additional sheets if necessary.																																								
Survey # 1 Observer(s) Angela Johnson	Date: 5/14/20 Start: 0557 Stop: 0800 Total hrs: 2.05	0	0	0	N		<table border="1"> <tr> <th>Easting</th> <th>Northing</th> <th>UTM E</th> <th>UTM N</th> </tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>	Easting	Northing	UTM E	UTM N																																				
Easting	Northing	UTM E	UTM N																																												
Survey # 2 Observer(s) Angela Johnson	Date: 6/2/20 Start: 0620 Stop: 0815 Total hrs: 1.92	0	0	0	N		<table border="1"> <tr> <th>Easting</th> <th>Northing</th> <th>UTM E</th> <th>UTM N</th> </tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>	Easting	Northing	UTM E	UTM N																																				
Easting	Northing	UTM E	UTM N																																												
Survey # 3 Observer(s) Angela Johnson	Date: 6/16/20 Start: 0522 Stop: 0725 Total hrs: 2.05	0	0	0	N		<table border="1"> <tr> <th>Easting</th> <th>Northing</th> <th>UTM E</th> <th>UTM N</th> </tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>	Easting	Northing	UTM E	UTM N																																				
Easting	Northing	UTM E	UTM N																																												
Survey # 4 Observer(s) Angela Johnson, Miranda Loring	Date: 6/30/20 Start: 0530 Stop: 0800 Total hrs: 2.5	0	0	0	N		<table border="1"> <tr> <th>Easting</th> <th>Northing</th> <th>UTM E</th> <th>UTM N</th> </tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>	Easting	Northing	UTM E	UTM N																																				
Easting	Northing	UTM E	UTM N																																												
Survey # 5 Observer(s) Angela Johnson	Date: 7/14/20 Start: 0551 Stop: 0755 Total hrs: 2.07	0	0	0	N		<table border="1"> <tr> <th>Easting</th> <th>Northing</th> <th>UTM E</th> <th>UTM N</th> </tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>	Easting	Northing	UTM E	UTM N																																				
Easting	Northing	UTM E	UTM N																																												
Overall Site Summary Totals do not equal the sum of each column. Include only territorial adults. Do not include immigrants, nestlings, and fledglings.		Total Adult Residents	Total Pairs	Total Territories	Total Nests	Were any Willow Flycatchers color-banded? Yes <input type="checkbox"/> No <input type="checkbox"/>																																									
Be careful not to double count individuals.		0	0	0	0	If yes, report color combination(s) in the comments section on back of form and report to USFWS.																																									
Total Survey Hrs: 10.59																																															

Reporting Individual: Angela Johnson Date Report Completed: 8/14/20
 US Fish and Wildlife Service Permit # TES9592B-2 State Wildlife Agency Permit # _____
 Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

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 Angela Johnson Phone # 970-412-4777
 Affiliation Kidd Biological, Inc. E-mail birdnred@kiddbiol.com
 Site Name Sycamore Hills Distribution Center Date Report Completed 8/14/20
 Was this site surveyed in a previous year? Yes ☒ No ☐ Unknown ☐
 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?
 If site was surveyed last year, did you survey the same general area this year? Yes ☐ No ☐ If no, summarize below.
 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., Tonio National Forest)) City of Riverside, and private
 Length of area surveyed: 1.3 (km)

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

- ☒ Native broadleaf plants (entirely or almost entirely, > 90% native)
☐ 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 names.)

Baccharis salicifolia, Salix spp., Salix goodingii

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

Attach the following: 1) copy of USGS quad/topographical map (REQUIRED) of survey area, outlining survey site and location of WIFL detections; 2) sketch or aerial photo showing site location, patch shape, survey route, location of any detected WIFLs or their nests; 3) photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments.

Comments (such as start and end coordinates of survey area if changed among surveys, supplemental visits to sites, unique habitat features. Attach additional sheets if necessary).

Habitat linear and patchy. Northern survey area more suitable due to thicker under-story. Eastern survey area has little canopy and a low average canopy height of 3m, or consists mainly of Baccharis salicifolia and Baccharis sarothroides with large patches of Urtica dioica.

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

Territory Number	All Dates Detected	UTM E	UTM N	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 D- YBCU SURVEY DATA FORM

Yellow Billed Cuckoo Survey Summary Form

Site Name: Sycamore Hills Distribution Center, Riverside State: CA
 USGS Quad Name: Riverside East Elevation: 486
 Creek, River, Wetland, or Lake Name: Unnamed drainage
 Site Coordinates: Start: E 471312 E 3753552 UTM Zone: 11 S
 Stop: E 471791 N 3753291 Datum: NAD83
 Ownership: BLM Reclamation NPS USFWS JNPS Tribal State: Private (Other: Municipal/County)
 Was site surveyed in previous year? Yes (If yes, what site name was used?) Same, in 2014

Survey # (Observer(s) (Last Name, First Initial)	Date (m/d/y) Survey Time Total Hours	Total Number of YBCUs Detected	Time Detected (AMT)	Detect Type: T-Tickled D-Playback A-aerial T-Tickled & D-Playback	Voc. Type: CN-Contact CD-Call AL-Alarm GT-Gutter (describe)	Playback A: Number of times Known/ call played/Unknown YBCU responded	Observer Code	Surveyor Detection Coordinates		Distance (m)	Bearing	UTM E	UTM N	UTME	UTMN	Compass Coordinates
								UTME	UTMN							
Survey Period #1 Observer(s): <u>Angela Johnson</u> <u>pyrene</u> <u>Looney</u>	Date: <u>6/30/20</u> Start: <u>0530</u> Stop: <u>0600</u> Total hrs: <u>2.5</u>	<u>0</u>														
Survey Period #2 Observer(s): <u>Angela Johnson</u>	Date: <u>7/14/20</u> Start: <u>0551</u> Stop: <u>0755</u> Total hrs: <u>2.07</u>	<u>0</u>														
Survey Period #3 Observer(s): <u>Angela Johnson</u>	Date: <u>7/22/20</u> Start: <u>0552</u> Stop: <u>0718</u> Total hrs: <u>1.43</u>	<u>0</u>														
Survey Period #4 Observer(s): <u>Angela Johnson</u>	Date: <u>7/14/20</u> Start: <u>0702</u> Stop: <u>0814</u> Total hrs: <u>1.28</u>	<u>0</u>														
Survey Period #5 Observer(s):	Date: Start: Stop: Total hrs:															
Survey Summary Total YBCUs:	<u>0</u>	<u>0</u>														
Notes (refer to Checklist # associated with individual detections)																*Include justification for these designations:

VOCALIZATION	CODE	BEHAVIOR	CODE	BEHAVIOR	CODE	BREEDING	CODE
Contact	CON	No visual	NV	Catches Prey	CP	Deposition	CDP
Coo	COO	Sitting	ST	Carry Food	CF	Feeds Mate	FM
Block/Alarm	ALA	Foraging	FO	Eats Food	EF	Carry Nest Material	CN
Alarm Call	ALC	Preening	PRE	At Nest	AN	Brooding/Incubating	BI
Other Vocalization	OV	Flying	FLY	Divulge	DIV	Feeds Nestling	FN
		Distraction Display	DD	Vocal Exchange	VE	Feeds fledgling	FF

NE = nest building, NE = active nest with unbroken eggs in it, NI = nest with young seen or heard in it, CN = occupied nest, US = used, inactive nest with blue-green eggs laid.

Yellow-Billed Cuckoo Survey Site Description Form

This form is intended to provide a general description of the habitat surveyed at a site. More detailed vegetation analysis requires precise measurements, and is outside the scope of this survey protocol. Please check your permit for additional requirements.

Fill in the following information completely Date Report completed: 8/14/20

Site Name: Sycamore Hills Distribution Center	State: CA	County: Riverside
Name of Reporting Individual: Angela Johnson	Affiliation: Kidd Biological, Inc.	
Phone #: 970-912-4777	Email: bjdneid26@gmail.com	
USFWS Permit #: TE 54592B-2	State Permit #	

Site Coordinates:	Start: E 471312	N 3753358	UTM Zone: 11S
	Stop: E 471791	N 3753091	NAD: WGS 84

USGS Quad Name(s): Riverside East Length of area surveyed (in kilometers): 1.3 Elevation: 486m

Name of nearest Creek, River, Wetland, or Lake: Unnamed drainage

Ownership: BLM Reclamation NPS USFWS USFS Tribal State Private Other (Municipal/County)

Was site surveyed in previous year? ☒ Yes ☐ No Unknown If yes, what site name was used? Same, in 2014

Did you survey the same general area during each visit this year? ☒ Yes ☐ No If no, summarize in comments below

If "Yes", was the same general area surveyed this year? ☒ Yes ☐ No If no, summarize in comments below

Native/Exotic: The species in trees/shrub layer at this site are comprised predominantly of (check one)

Native broadleaf plants (>75% native)	<input checked="" type="checkbox"/>	Mixed native and exotic plants (mostly native: 51%-75%)	
Exotic/introduced plants (>75% exotic)	<input type="checkbox"/>	Mixed native and exotic plants (mostly exotic: 51%-75%)	

List up to 5 species of overstory vegetation and percent canopy cover of each species. Use scientific names. For percent cover, please use <1%, 10%, 25%, 50%, 75%, 90%, 100%.

1. Populus fremontii % cover: 50	2. Salix spp % cover: 25	3. Platanus racemosa % cover: 10
4. Salix goodenii % cover: 10	5. % cover:	

Average height of overstory (m) (do not include a range): 12 Estimated Overall Canopy Cover (percent): 30

List up to 5 species of understory/shrub vegetation (not all sites will have a separate understory) and estimate percent understory cover of each species. Use scientific names. For percent cover, please use <1%, 10%, 25%, 50%, 75%, 90%, 100%.

1. Salix spp % cover: 50	2. Baccharis salicifolia % cover: 25	3. Baccharis pilularis % cover: 10
4. Sambucus sp % cover: 10	5. Tamarix sp % cover: 1	

Average height of understory (m) (do not include a range): 4 Estimated Overall Cover (percent): 60

Describe adjacent habitat (e.g. upland vegetation; desert scrub; urban/residential; agriculture/orchard; oak woodland)

Primarily non-native grassland and areas of sparse sage scrub. Recreational hiking and biking trails cross uplands and riparian drainages. Housing and commercial developments primarily to the south, and Sycamore Wilderness Park to the north.

List up to five categories of adjacent habitat, and estimate percent cover. Use <1%, 10%, 25%, 50%, 75%, 90%, 100%.

1. Non-native grass % cover: 50	2. Upland scrub % cover: 25	3. Urban/residential % cover: 10
4. Disturbed % cover: 10	5. % cover:	

Was surface water or saturated soil present at or adjacent to site within 300 meters? ☒ Yes ☐ No (circle one)

Was surface water or saturated soil present at or adjacent in all patches surveyed? ☒ Yes ☐ No (circle one)

Comments: Please provide comments regarding differences between the survey patches within the site. For example, if the average canopy for this site is 30% cover, but within one patch it is 60% cover - please note. Also, please note significant differences between dominant overstory and understory vegetation among the patches. Document these differences with photographs whenever possible. Make sure to reference comments to photo number whenever available.

Water patch most suitable for YBCW but patch size is small - has the best canopy species and canopy cover. Southern patch has little understory and is considered marginal due to its small size. Eastern survey patch has little to no canopy and was not considered suitable so was not surveyed for YBCW.

Site Name: Sycamore Hills Distribution center	Name of Reporting Individual: Angela Johnson
Phone #: 970-412-4777	Email: birdnerd26@gmail.com

Attach the following: 1) Copy of USGS 7.5 minute quad/topographical map(s) of survey area, outlining survey site and location of YBCU detection; 2) Sketch or aerial photo showing site location, patch shape, openings, survey route, and location of any detected YBCU or their nests; 3) Photos of the interior of the patch, exterior of the patch, and overall site. Describe any unique habitat features in Comments. Check your permits for required documentation.

North Patch:
 Dominated by *Salix* spp., then *Baccharis salicifolia* and *B. pilularis*. Sambucus along the edges. Two large *P. racemosa* also present. This patch also has an area of arundo and a single *S. mollis*.

Narrow strip of *Baccharis* spp. connects the north and South patch. No YBCU playback due to no habitat present.

South Patch:
 Primarily *Salix* spp., *Salix gooddingii*, *Populus fremontii*, but with a light understory of *B. salicifolia* and some non-native palm species. one small patch of tamarisk also present.

East Patch:
 one area of canopy consisting of *S. gooddingii* and *Salix* spp. but understory dominant. Not suitable for YBCU.

APPENDIX E- SITE PHOTOS

North Patch Site Photos



South Patch Site Photos



East Patch Site Photos



SYCAMORE HILLS DISTRIBUTION CENTER

RIVERSIDE COUNTY, CALIFORNIA

Burrowing Owl Focused Survey Report

Prepared For:

Ruth Villalobos & Associates, Inc.
3602 Inland Empire Boulevard, Suite C310
Ontario, California 91764
Contact: *Ruth Villalobos*

Prepared By:

ELMT Consulting
2201 N. Grand Avenue #10098
Santa Ana, California 2711
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714.716.5050

June 2020
Updated September 2020

SYCAMORE HILLS DISTRIBUTION CENTER

RIVERSIDE COUNTY, CALIFORNIA

Burrowing Owl Focused Survey Report

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



Travis J. McGill
Director



Thomas J. McGill, Ph.D.
Managing Director

June 2020
Updated September 2020

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APPENDIX

Appendix A	Site Photographs
Appendix B	Fauna Compendium

Section 1 Introduction

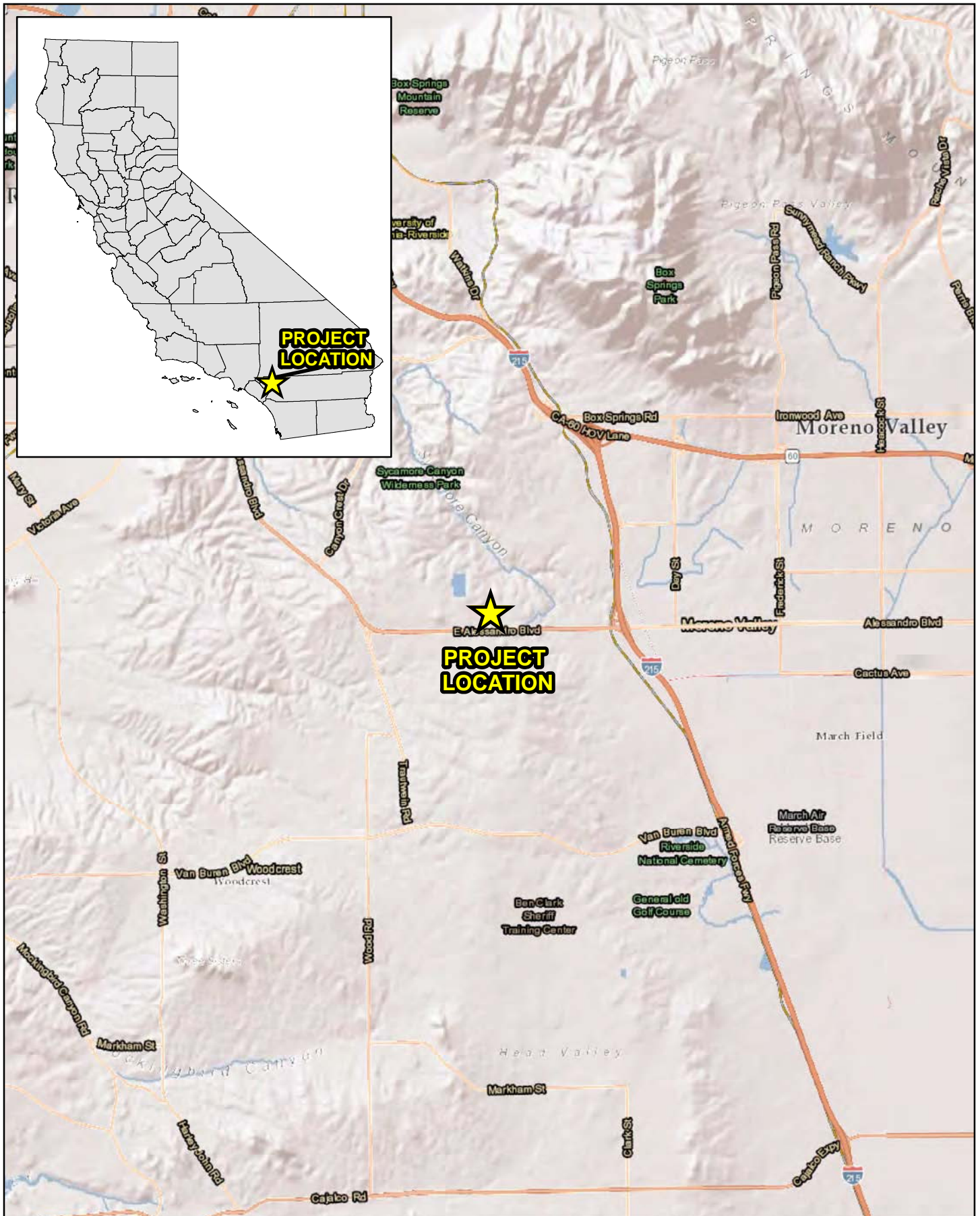
ELMT Consulting (ELMT) conducted a focused burrowing owl (*Athene cunicularia*) survey for the Sycamore Hills Distribution Center East project (project or project site) located north of East Alessandro Boulevard and east of Barton Street in the City of Riverside, Riverside County, California (project site or site). Biologists Thomas J. McGill, Ph.D., Travis J. McGill, Miranda Losing, and Jacob H. Lloyd Davies surveyed the project site in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (Environmental Programs Department, 2006). Four (4) separate focused burrowing owl surveys were conducted on April 24, May 7, May 21, and June 5, 2020. The surveys were conducted to document the presence/absence of burrowing owl on the project site.

1.1 PROJECT LOCATION

The project site is generally located west of Interstate 215, south of State Route 60, east State Route 91, and north of East Alessandro Boulevard in the City of Riverside, Riverside County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Riverside East quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Section 9 of Township 3 South, Range 4 West (Exhibit 2, *Site Vicinity*). Specifically, the project site is located immediately north of East Alessandro Boulevard, immediately east of Barton Avenue, and immediately southeast of the Sycamore Canyon Wilderness Park within Assessor Parcel Numbers (APNs) 263-060-022, -024, and -026 (Exhibit 3, *Project Site*).

1.2 PROJECT DESCRIPTION

The proposed project consists of the grading for, and construction of, two warehouse buildings and associated office spaces and parking encompassing approximately 48.6 acres. Planned warehouse and office spaces total 603,100 square feet and planned parking includes 623 standard auto parking stalls and 155 tractor-trailer parking stalls.



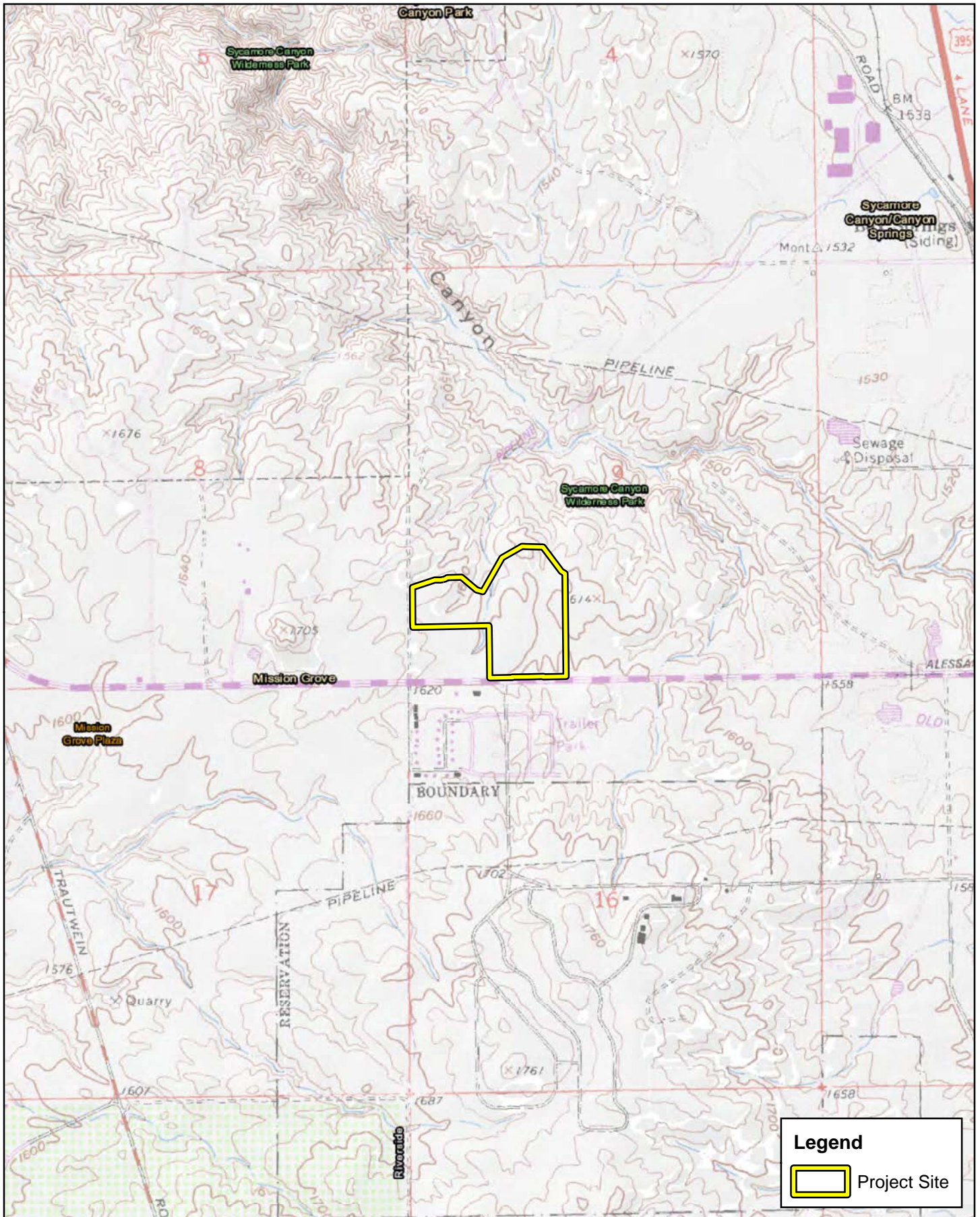
SYCAMORE HILLS DISTRIBUTION CENTER
BURROWING OWL FOCUSED SURVEY

Regional Vicinity



0 0.625 1.25 2.5
Miles

Source: World Transportation, World Shaded Relief, Riverside County



SYCAMORE HILLS DISTRIBUTION CENTER
BURROWING OWL FOCUSED SURVEY
Site Vicinity



SYCAMORE HILLS DISTRIBUTION CENTER
BURROWING OWL FOCUSED SURVEY

Project Site

Exhibit 3

Section 2 Species Background

2.1 SPECIES BACKGROUND

The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of fossorial mammals, such as ground squirrels (*Otospermophilus beecheyi*), whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse and may inhibit excavation by predators.

Burrowing owls have crepuscular (dawn and dusk) hunting habits but are often observed perched in or near the burrow entrance during the day. They prey upon invertebrates and small vertebrates (Thomsen 1971) through low vegetation which allows for foraging visibility. The nesting season occurs between February 1 and August 31. Burrowing owl in California may migrate southerly, but often remain in the breeding area during the non-breeding period.

The burrowing owl was once abundant and widely distributed within coastal southern California, but it has declined precipitously in counties such as Los Angeles, Orange, San Diego, Riverside, and San Bernardino. A petition was filed to list the California population of the western burrowing owl as an Endangered or Threatened species (Center for Biological Diversity 2003); however, the California Department of Fish and Wildlife (CDFW) declined to list the burrowing owl as either endangered or threatened. The CDFW currently lists the burrowing owl as a California Species of Special Concern.

2.2 REGULATORY FRAMEWORK

The burrowing owl is a resident and migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA reflects agreements made between the U.S., England, Mexico, the former Soviet Union, and Japan to protect all of North America's migratory bird populations. The MBTA protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and collection. The other prohibitions of the MBTA - capture, pursue, hunt, and kill - are inapplicable to nests. The regulatory definition of take, as defined in Title 50 C.F.R. part 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect. Only the verb "collect" applies to nests. It is illegal to collect, possess, and by any means transfer possession of any migratory bird nest. The MBTA prohibits the destruction of a

nest when it contains birds or eggs, and no possession shall occur during the destruction (United States Fish and Wildlife Service, Migratory Bird Permit Memorandum, April 15, 2003). Certain exceptions to this prohibition are included in 50 C.F.R. section 21. Pursuant to CDFW Code section 3513, the Department enforces the MBTA consistent with rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.

Additionally, burrowing owl is protected under Sections 3503, 3503.3, 3511, and 3513 of the CDFW Code which prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). CDFW Code Section 3503.5 protects birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks and owls, including burrowing owls) which makes it unlawful to take, possess, or destroy their nest or eggs.

CDFW's 2012 Staff Report on Burrowing Owl Mitigation offers long-term assurances for conservation of this species in exchange for biologically appropriate levels of incidental take and/or habitat loss as defined in the approved plan. California's NCCP Act (FGC §2800 et seq.) governs such plans at the state level, and was designed to conserve species, natural communities, ecosystems, and ecological processes across a jurisdiction or a collection of jurisdictions. Complementary federal HCPs are governed by the Endangered Species Act (7 U.S.C. § 136, 16 U.S.C. § 1531 et seq.) (ESA). Regional conservation plans (and certain other landscape-level conservation and management plans), may provide conservation for unlisted as well as listed species. Because the geographic scope of NCCPs and HCPs may span many hundreds of thousands of acres, these planning tools have the potential to play a significant role in conservation of burrowing owls, and grasslands and other habitats.

Guidelines for the Implementation of the California Environmental Quality Act (CEQA) provide that a species be considered as endangered or "rare" regardless of appearance on a formal list for the purposes of the CEQA (Guidelines, Section 15380, subsections b and d). CEQA requires a mandatory finding of significance if impacts to threatened or endangered species are likely to occur (Sections 21001(c), 21083. Guidelines 15380, 15064, 15065). Avoidance or mitigation must be presented to reduce impacts to less than significant levels.

2.2.1 MSHCP Section 6.3.2 Additional Survey Needs and Procedures – Burrowing Owl

Under Section 6.3.2 the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) the burrowing owl is considered an adequately conserved covered species that may still require focused surveys in certain areas as designated in Figure 6-4 of the MSHCP. The purpose of Section 6.3.2 of the MSHCP is to provide coverage under the MSHCP for those species for which existing available information was not sufficient, and therefore, survey requirements are incorporated

in the MSHCP to provide the level of information necessary for these species to receive coverage (Dudek & Associates, Inc., 2003).

Section 3 Methodology

General weather conditions during each of the surveys were suitable for detections of burrowing owls. The weather during the surveys consisted of cloudy to clear skies with minimal wind, and temperatures ranging from 44 -60 degrees Fahrenheit (°F). Surveys are not accepted if they are conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90°F. The protocol survey for burrowing owl requires a systematic survey of all areas that provide suitable habitat plus a 150-meter (approximately 500 feet) zone of influence (survey area) on all sides of suitable habitat, where applicable (Exhibit 4, *Survey Area and Suitable Habitat*). Since the project site is bordered by residential and commercial developments to the south, and the Metropolitan Water District Water Treatment Plant to the west, a zone of influence was not able to be surveyed by foot to the south and west of the project site. The residential and commercial developments south of the project site do not provide suitable habitat for burrowing owls and were not surveyed for burrowing owls. The area west of the project site, associated with the Metropolitan Water District Water Treatment Plant, was scanned with binoculars from the western boundary of the project site for burrowing owls. Refer to Exhibit 5, *Survey Areas and Suitable Habitat*.

Survey transects on the project site were oriented north to south and were conducted at a maximum of 30-meter (approximately 100 feet) intervals to ensure 100% visual coverage of all areas in suitable habitat on the project site and within the survey area. The focused burrowing owl surveys were conducted during the recognized timeframe (the breeding season is typically March through August) in the morning one hour before sunrise to two hours after sunrise.

Suitable burrows/sites, including rock piles and non-natural substrates, were thoroughly examined for signs of presence. All burrows encountered were examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed were recorded and mapped, with a hand-held GPS unit, if observed. Methods to detect presence of burrowing owls included direct observation, aural detection, and signs of presence. Binoculars were used to observe distant birds and their activity around potential nesting habitat. During the focused surveys, the survey area was assessed on foot by qualified biologists Thomas J. McGill, Ph.D., Travis J. McGill, Miranda Losing, and Jacob H. Lloyd Davies who are knowledgeable in the habitats and behavior of burrowing owls.

Four focused burrowing owl surveys were conducted on April 24, May 7, May 21, and June 5, 2020. All surveys were completed between 0600 to 1000 hours. The surveys were conducted to document the presence/absence of burrowing owl on the project site.

Table 1: Survey Data

Survey No.	Survey Date	Surveyor	Time	Temperature (°F)	Cloud Cover	Wind Speed (mph)	Burrowing Owl Detected
1	4/24/20	Travis McGill Miranda Losing	0630-1000	77-81	0%	1-5	No
2	5/07/20	Travis McGill Miranda Losing Jacob Lloyd Davies	0600-1000	65-70	25%	1-5	No
3	5/21/20	Thomas McGill Travis McGill	0600-1000	68-74	10%	1-3	No
4	6/05/20	Travis McGill Miranda Losing Jacob Lloyd Davies	0600-1000	60-62	100%	1-3	No



Section 4 Results

4.1 EXISTING CONDITIONS

The project site is relatively flat with no areas of significant topographic relief and ranges in elevation from 1,571 to 1,620 feet above sea level and generally slopes from west to east. According to the Custom Soil Resource Report, the project site is underlain by the following soil units: Arlington fine sandy loam (2 to 8 percent slopes), Cienega sandy loam (15 to 50 percent slopes, eroded), Cienega rocky sandy loam (15 to 50 percent slopes, eroded), Fallbrook sandy loam (8 to 15 percent slopes, eroded), Fallbrook sandy loam (5 to 8 percent slopes, shallow, eroded), Fallbrook fine sandy loam (8 to 15 percent slopes, shallow, eroded), and Vista coarse sandy loam (8 to 15 percent slopes, eroded).

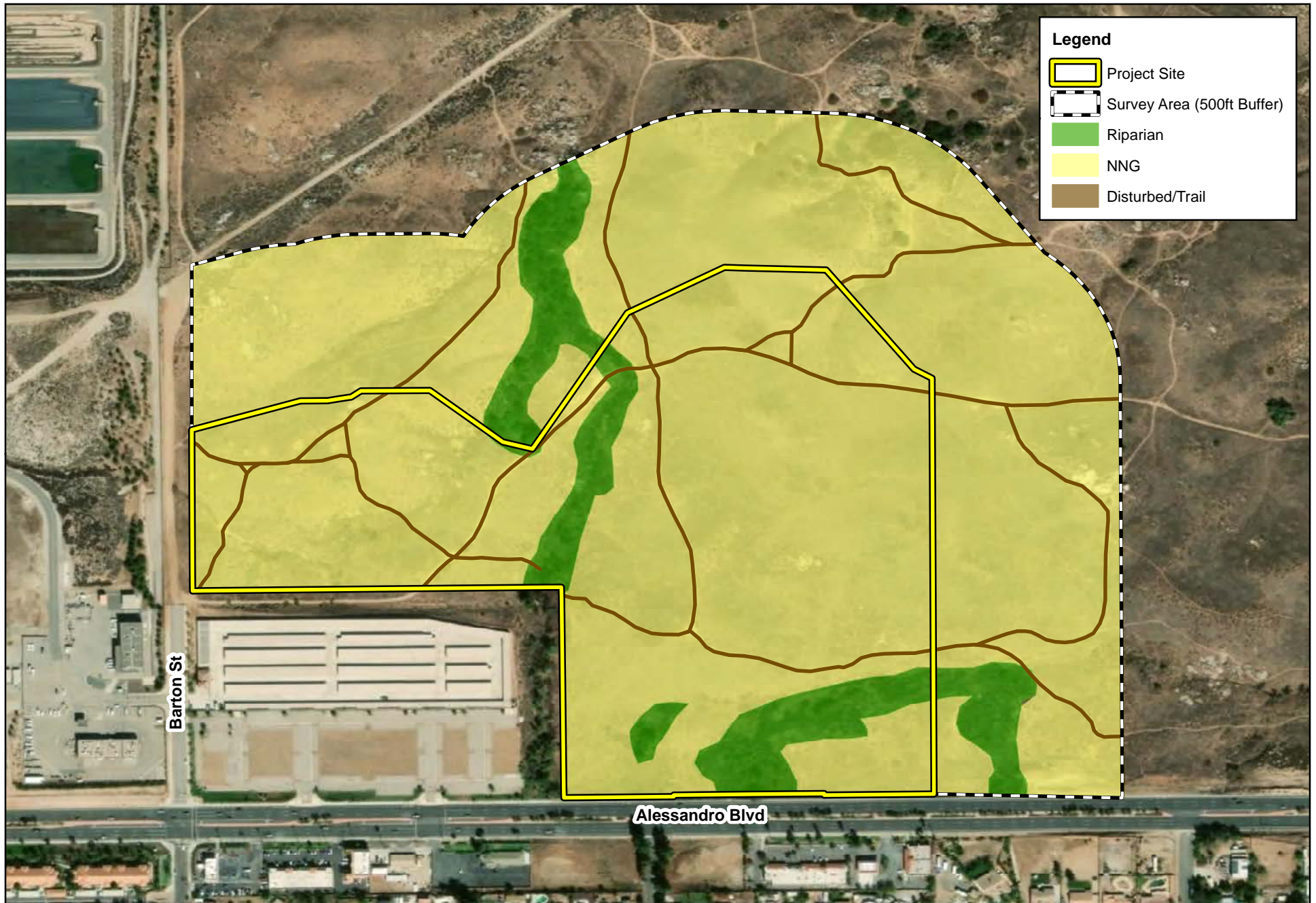
Land uses in the vicinity of the project site primarily consist of residential, commercial, and industrial developments, and undeveloped/vacant parcels. The site is bordered by the Sycamore Canyon Wilderness Park to the north and east, Barton Street and a water treatment facility to the west, a storage facility and Alessandro Boulevard to the south. The project site consists of undeveloped, vacant land, portions of which have undergone periodic weed abatement for fire control purposes. The site supports two (2) vegetation communities: non-native grassland and riparian woodland, and one (1) land cover type that would be classified as disturbed (Exhibit 5, *Vegetation*).

The majority of the project site supports a non-native grassland. This vegetation community is dominated by non-native grasses such as wild oat (*Avena fatua*), red brome (*Bromus madritensis* ssp. *rubens*), cheat grass (*Bromus tectorum*), and ripgut (*Bromus diandrus*). Additional vegetation observed within the non-native grassland community includes short-podded mustard (*Hirschfeldia incana*), filaree (*Erodium* sp.), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and California-aster (*Corethrogyne filaginifolia*).

Scattered portions of the project site support drainages that consist of a riparian woodland plant community. This plant community is dominated by willows (*Salix* sp.) and cottonwood (*Populus fremontii*). Other plant species observed in the riparian woodland include mulefat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica*), other shrubs and herbs, and non-native grasses.

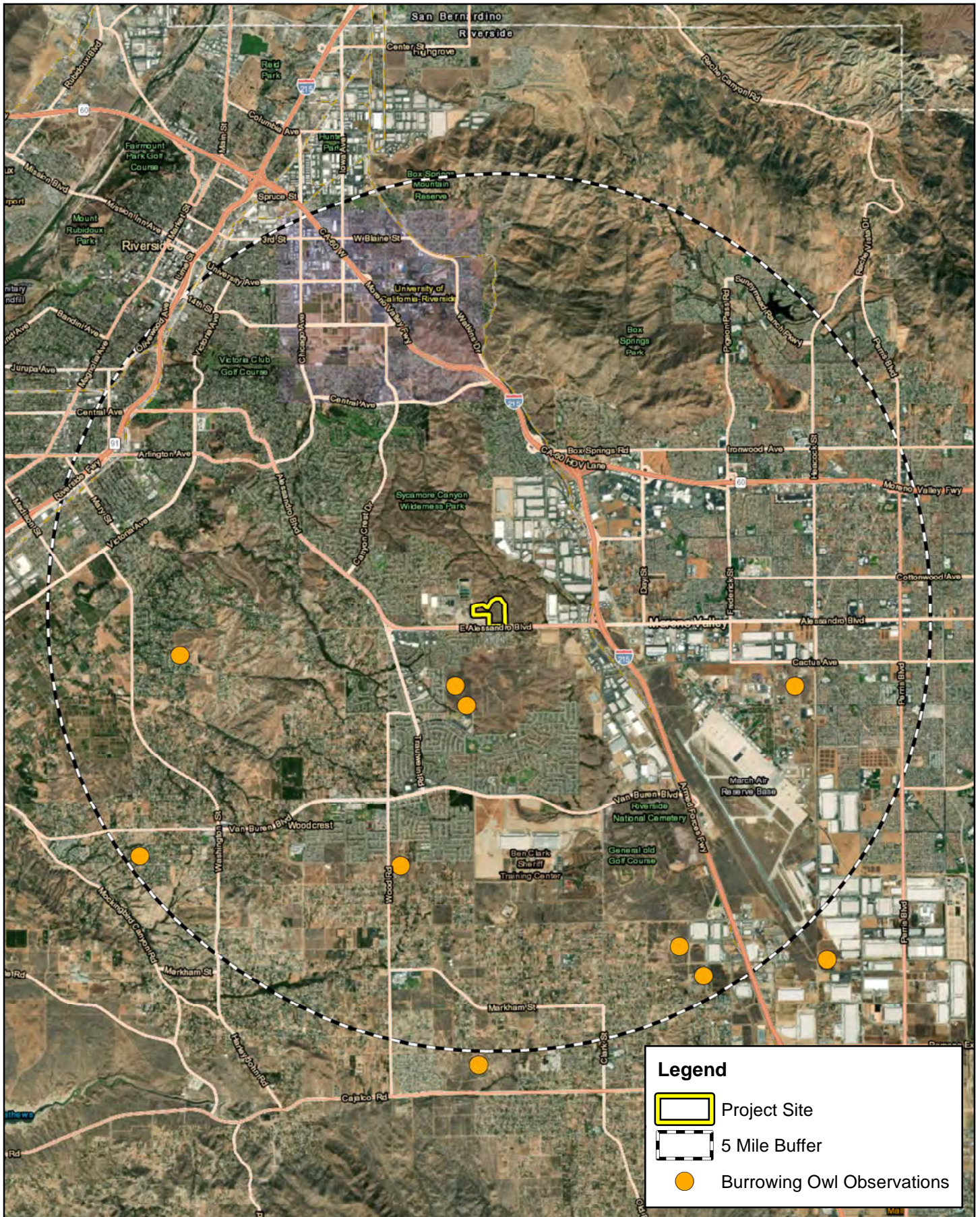
The disturbed areas of the site occur within a network of open, cleared dirt trails that permeate the site. These areas host frequent human traffic and are either completely devoid of vegetation or support minimal weedy/early successional species.

Based on a review of CDFW's California Natural Diversity Database (CNDDDB) approximately 8 burrowing owl observations have been recorded within 5 miles of the project site. The nearest occurrence was approximately 1 mile southwest of the project site. Refer to Exhibit 6, *CNDDDB BUOW Observations*.



SYCAMORE HILLS DISTRIBUTION CENTER
BURROWING OWL FOCUSED SURVEY

Vegetation



Legend

- Project Site
- 5 Mile Buffer
- Burrowing Owl Observations

4.2 BURROWING OWL FOCUSED SURVEY

The majority of the project site is vegetated with a variety of relatively low-growing plant species that allow for the line-of-sight observation opportunities favored by burrowing owl. However, the majority of the site is densely vegetated following high levels of late spring precipitation, resulting in minimal open areas and limited line-of-sight opportunities. Several small mammal burrows that have the potential to provide suitable burrowing owl nesting habitat (>4 inches in diameter) were observed scattered throughout the project site during the surveys. Despite a systematic search of the project site, no burrowing owls or sign (pellets, feathers, castings, or whitewash) were observed on or within 500 feet, where accessible, of the project site during the focused surveys.

Avian species observed during the focused surveys include American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), blue grosbeak (*Passerina caerulea*), bushtit (*Psaltiriparus minimus*), California towhee (*Melospiza crissalis*), common yellowthroat (*Geothlypis trichas*), hooded oriole (*Icterus cucullatus*), house finch (*Haemorhous mexicanus*), lark sparrow (*Chondestes grammacus*), least Bell's vireo (*Vireo bellii pusillus*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaidura macroura*), northern harrier (*Circus hudsonius*), northern mockingbird (*Mimus polyglottos*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), Say's phoebe (*Sayornis saya*), song sparrow (*Melospiza melodia*), western meadowlark (*Sturnella neglecta*), Wilson's warbler (*Cardellina pusilla*), and yellow warbler (*Setophaga petechia*). Refer to Appendix B for a complete list of wildlife species observed during the surveys.

It should be noted that a burrowing owl focused survey was also conducted in 2018 by Wood Environment & Infrastructure Solutions, Inc. in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (Environmental Programs Department, 2006). No burrowing owl or sign were observed during the 2018 focused surveys.

Section 5 Conclusion and Recommendations

Based on the results of the 2018 and 2020 burrowing owl focused surveys, no burrowing owls or evidence of recent or historic use by burrowing owls were observed on the project site. As a result, burrowing owls are presumed absent from the project site. Out of an abundance of caution, and to ensure burrowing owl remain absent from the project site, it is recommended that a 30-day burrowing owl pre-construction clearance survey be conducted in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* prior to any ground disturbing activities. If burrowing owls and/or birds displaying nesting behaviors are observed within the project site during future construction, further review may be needed to ensure compliance with the MSHCP, MBTA and Fish and Game Code.

Section 6 References

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Appendix A Site Photographs



Photograph 1: From the southwest corner of the project site looking north along the western boundary.



Photograph 2: From the southwest corner of the project site looking east along the southwestern boundary of the project site north of the storage facility to the south.



Photograph 3: From the northeast corner of the survey area (500-foot buffer) looking south along the western boundary.



Photograph 4: From the northwest corner of the survey area (500-foot buffer) looking southeast across the western half of the project site.



Photograph 5: From the southeast portion of the western half of the project site looking north.



Photograph 6: From the middle of the northern boundary of the survey area looking south across the western half of the project site.



Photograph 7: From the northeast corner of the survey area looking southwest across the eastern half of the project site.



Photograph 8: From the middle of the eastern portion of the project site looking south at the southwestern boundary of the project site.



Photograph 9: From the middle of the eastern half of the project site looking north.



Photograph 10: From the eastern boundary of the survey area west across the northern extent of the survey area.



Photograph 11: Looking south from the eastern portion of the survey area.



Photograph 12: From the southeast corner of the survey area looking west across the southern portion of the site.



Photograph 13: From the middle of the project site looking east across non-native grassland on the eastern portion of the site.



Photograph 14: Looking at the riparian habitat on the southwest corner of the project site, east of the storage facility.

Appendix B Fauna Compendium

Table B – 1: Wildlife Species

Scientific Name	Common Name
Aves	Birds
<i>Aeronautes saxatalis</i>	white-throated swift
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Buteo lineatus</i>	red-shouldered hawk
<i>Callipepla californica</i>	California quail
<i>Calypte anna</i>	Anna's hummingbird
<i>Cardellina pusilla</i>	Wilson's warbler
<i>Cathartes aura</i>	turkey vulture
<i>Chondestes grammacus</i>	lark sparrow
<i>Circus hudsonius</i>	northern harrier
<i>Corvus brachyrhynchos</i>	American crow
<i>Falco sparverius</i>	American kestrel
<i>Geothlypis trichas</i>	common yellowthroat
<i>Haemorhous mexicanus</i>	house finch
<i>Icterus cucullatus</i>	hooded oriole
<i>Melospiza melodia</i>	song sparrow
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	northern mockingbird
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Passerina caerulea</i>	blue grosbeak
<i>Picoides nuttallii</i>	Nuttall's woodpecker
<i>Pipilo maculatus</i>	spotted towhee
<i>Psaltiriparus minimus</i>	bushtit
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Setophaga petechia</i>	yellow warbler
<i>Spinus psaltria</i>	lesser goldfinch
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow
<i>Sturnella neglecta</i>	western meadowlark
<i>Thryomanes bewickii</i>	Bewick's wren
<i>Tyrannus vociferans</i>	Cassin's kingbird
<i>Vireo bellii pusillus</i>	least Bell's vireo
<i>Zenaida macroura</i>	mourning dove
Mammalia	Mammals
<i>Canis latrans</i>	coyote
<i>Otospermophilus beecheyi</i>	California ground squirrel
<i>Sylvilagus audubonii</i>	desert cottontail
Reptilia	Reptiles
<i>Sceloporus orcutti</i>	granite spiny lizard
<i>Sceloporus occidentalis longipes</i>	Great Basin fence lizard