

Appendix B

Biological Resource Assessment

Biological Resource Assessment for the East Campus Student Apartments Phase V Project



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ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

Applicant	Kimley-Horn on behalf of University of California, Irvine
BLM	United States Bureau of Land Management
BMPs	Best Management Practices
CAGN	coastal California gnatcatcher
CDF	California Department of Forestry and Fire Protection
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CRPR	California Rare Plant Rank
CSLS	Carlson Strategic Land Solutions
CWA	Clean Water Act
FESA	Federal Endangered Species Act
FGC	California Fish and Game Code
GIS	Geographic Information System
GPS	Global Positioning System
LBV	least Bell's vireo
MBTA	Migratory Bird Treaty Act
MCVII	The Manual of California Vegetation
MMRP	Mitigation, Monitoring, and Reporting Program
MSL	mean sea level
NCCP/HCP	Orange County Natural Community Conservation Plan/Habitat Conservation Plan
NEPA	National Environmental Protection Act
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark

Project	East Campus Student Apartments Phase V Project
RWQCB	Regional Water Quality Control Board
SAA	Section 1600 Streambed Alteration Agreement
SWPPP	Storm Water Pollution Prevention Plan
UCI	University of California, Irvine
U.S.	United States
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WQC	Section 401 Water Quality Certification

1.0 Introduction

Carlson Strategic Land Solutions (CSLS) prepared this Biological Resource Assessment for Kimley-Horn on behalf of University of California, Irvine (UCI) for the East Campus Student Apartments Phase V Project site (Project) in the City of Irvine. The Project proposes a total of 1,065 bed apartment buildings and associated parking lot on two separate Project sites. The Biological Resource Assessment for the Project site and the surrounding 300-feet, collectively known as the "Study Area," incorporates the findings from a biological field survey and jurisdictional delineation conducted on November 27, 2024.

1.1 Purpose and Approach

This report provides a summary of the conditions present during the November 2024 field survey, which includes an assessment of the potential presence of sensitive biological resources, an analysis of the potential impacts to those resources due to Project implementation and proposed mitigation. This assessment describes the current biological resources present within the Study Area including habitat communities, jurisdictional waters, and the potential occurrence of listed and special status plant and wildlife species. The potential biological significance of site construction and development in view of federal, state, and local laws and regulations are also identified in this report. The report also recommends, as appropriate, Best Management Practices (BMPs) and avoidance and minimization measures to reduce or avoid potential impacts. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. This assessment was prepared based upon results of a literature review and field survey.

1.2 Project Terms

The following terms will be used throughout this document and are defined as follows:

- Project site: The Project site consists of two separate sites. Site A, consisting of 1.75 acres in size, is located on the southwest corner of Campus Drive and California Avenue. Site B, consisting of 1.50 acres in size, is located on the southeast corner of Campus Drive and East Peltason Drive.
- Study Area: the area evaluated during the field survey, including Site A and Site B, and an approximate 300-foot buffer area surrounding each site.
- Project Vicinity: intended to be a general term to describe the broader area surrounding the Study Area.

1.3 Project Location

The Study Area, which includes both Site A and Site B, is located in the City of Irvine, north of Adobe Circle Road, east of E. Peltason Drive, south of Campus Drive, and west of California Avenue (**Figures 1 and 2**). Areas surrounding the Study Area include commercial and multi-family to the north, which is located off campus; student housing

and Early Childhood Education Center located to the south and east, and Education building and Law Building to the west (**Figure 2**). The Study Area is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Tustin* Quadrangle, located in Sections 57 and 58 of Township 6 South and Range 9 West.

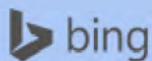
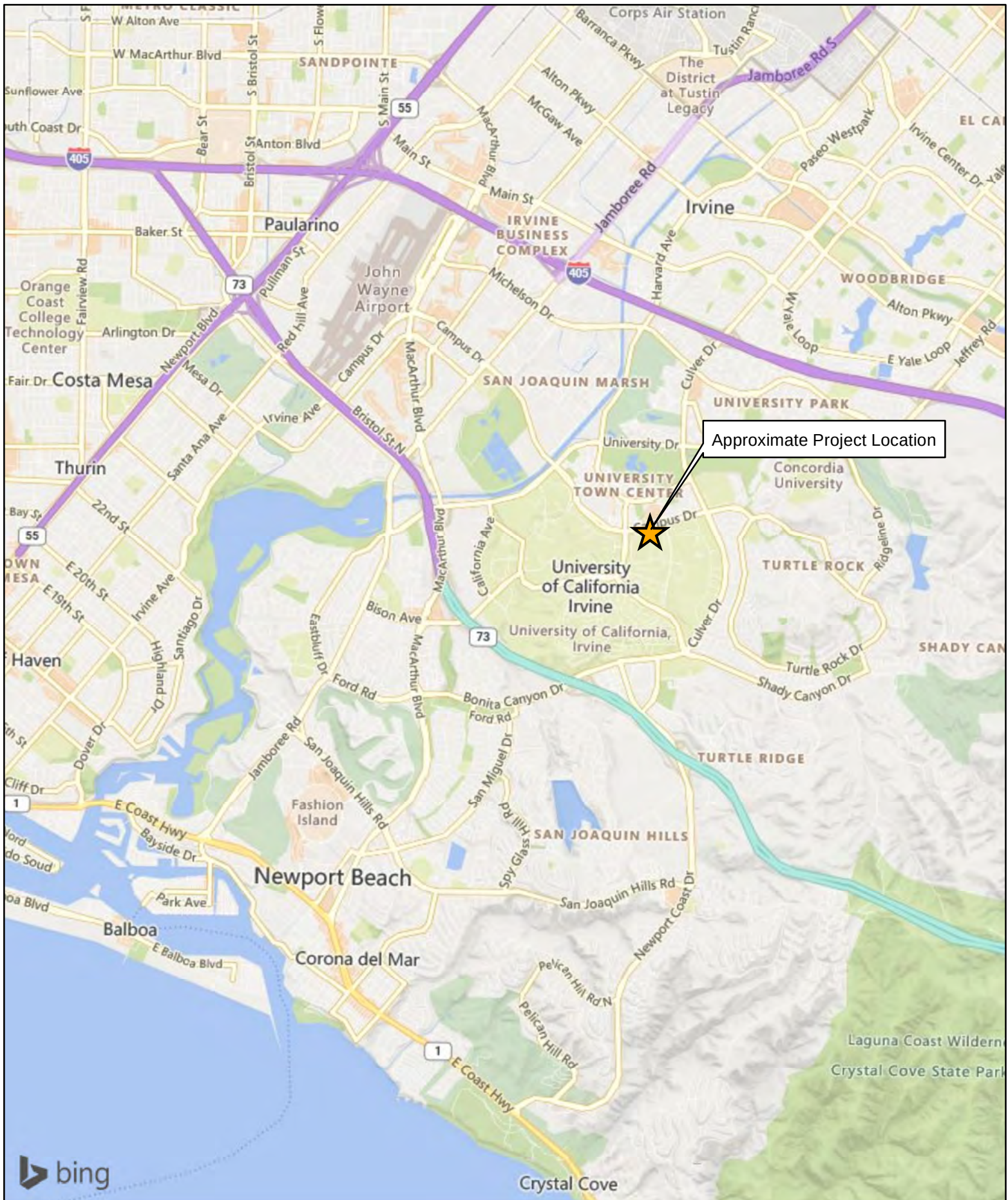
Access to the Project site is located off Adobe Circle Road.

1.4 Existing Conditions and Project History

Project Site A is currently developed with the American Heart Association Building and associated parking lot. Ornamental vegetation is found along the frontage of the building. Site B is completely developed as a parking lot and associated ornamental vegetation. It should be noted, located east of Site B is an existing drainage with riparian species, which is identified as a Mitigation Site for prior impacts to a drainage on campus during the development within the area.

2.0 Project Description

The Project proposes to construct a total of 1,065 bed apartment buildings with Project Site A totaling 512 beds and Project Site B totaling 553 beds (**Figures 3 and 4**). Associated parking and drop off areas occur on each site. No impacts are anticipated to occur to the existing Mitigation Site located east of Site B.



GIS Prepared By:
Carlson SLS

Created: February 7, 2025



0 1,250 2,500 5,000 7,500 Feet
1 inch = 5,000 feet

Data Source: Bing Roads Map

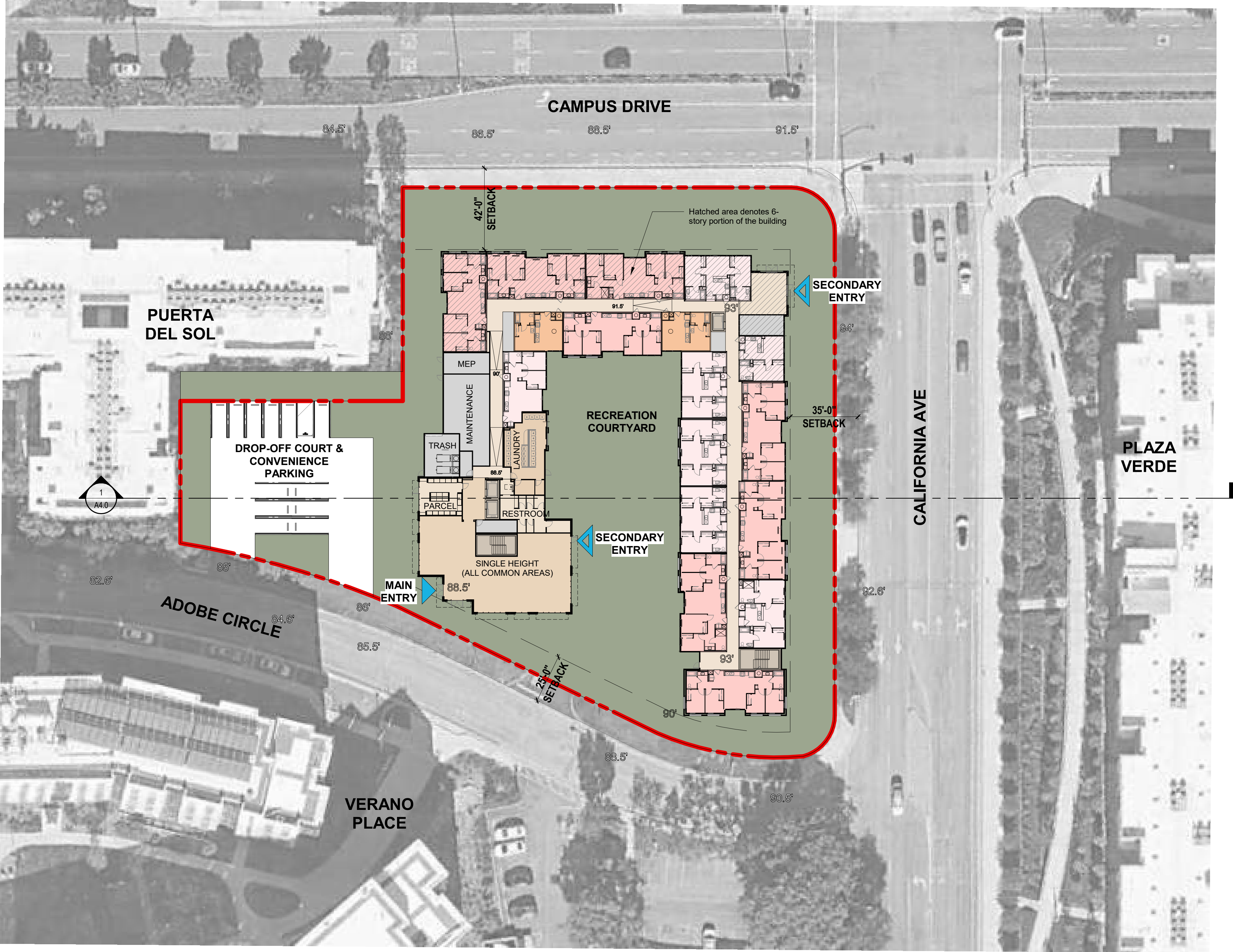
**East Campus Student Apartments
Phase IV Project
Regional Location**

Figure 1



GIS Prepared By: Carlson SLS Created: February 7, 2024	0 62.5 125 250 375 500 Feet 1 inch = 250 feet	Data Source: Bing Maps	East Campus Student Apartments Phase IV Project Project Site Map
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Figure 2



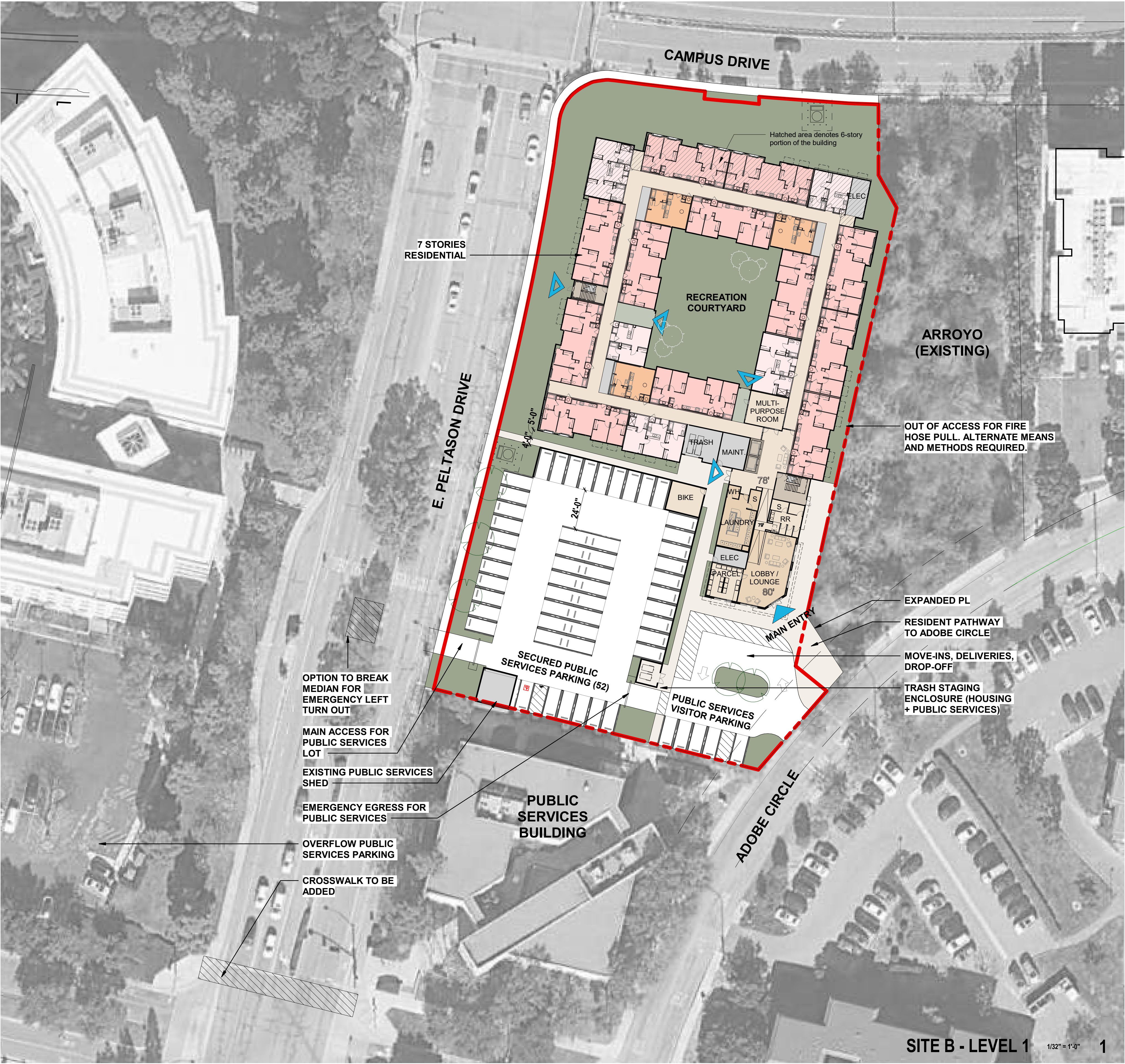
SITE A - LEVEL 1 1/32" = 1'-0" 1

SITE A - APT (7 LEVELS)								
TYPE NAME		UNIT TYPE	UNIT COUNT	UNIT NRSF	TOTAL NRSF	BEDS/UNIT	TOTAL BEDS	%
UNIT A								
APT UNIT A.1		UNIT A	20	519 SF	10,380 SF	1	20	14%
			20		10,380 SF		20	14%
UNIT B								
APT UNIT B		UNIT B	32	807 SF	25,824 SF	4	128	22%
APT UNIT B (MOBILITY)		UNIT B	13	830 SF	10,790 SF	4	52	9%
UNIT B.1 (BEDROOM REMOVED)		UNIT B	1	550 SF	550 SF	2	2	1%
			46		37,164 SF		182	32%
UNIT C								
APT UNIT C		UNIT C	64	1,131 SF	72,384 SF	4	256	44%
APT UNIT C (MOBILITY)		UNIT C	13	1,182 SF	15,366 SF	4	52	9%
APT UNIT C.1 (BEDROOM REMOVED)		UNIT C	1	764 SF	764 SF	2	2	1%
			78		88,514 SF		310	54%
TOTAL COUNT			144		136,058 SF		512	100%

PRELIMINARY BUILDING CODE ANALYSIS	
OCCUPANCY CLASSIFICATION	R-2, A-3, B
TYPE OF CONSTRUCTION	TYPE III-A WOOD FRAME, TYPE I-A
SPRINKLER SYSTEM	NFPA 13
ALLOWABLE STORIES	5 STORIES (TYPE III-A), UNLIMITED (TYPE I-A)

- GENERAL NOTES
1. ACCESS TO ALL PUBLIC AREAS IN AND AROUND THE BUILDING WILL BE DESIGNED TO BE ACCESSIBLE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT.
 2. THE RESIDENTIAL UNITS WILL BE DESIGNED TO BE ACCESSIBLE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE

Figure 3



SITE B - 7 LEVELS							
	TYPE NAME	UNIT TYPE	UNIT COUNT	UNIT NRSF	TOTAL NRSF	BEDS/UNIT	TOTAL BEDS
UNIT A	APT UNIT A.1	UNIT A	33	519 SF	17,127 SF	1	33
			33		17,127 SF		33
UNIT B	APT UNIT B	UNIT B	11	807 SF	8,877 SF	4	44
	APT UNIT B (MOBILITY)	UNIT B	20	830 SF	16,600 SF	4	80
	UNIT B.1 (BEDROOM REMOVED)	UNIT B	2	550 SF	1,100 SF	2	4
			33		26,577 SF		128
UNIT C	APT UNIT C	UNIT C	98	1,131 SF	110,838 SF	4	392
			98		110,838 SF		392
TOTAL COUNT			164		154,542 SF		553

PRELIMINARY BUILDING CODE ANALYSIS	
OCCUPANCY CLASSIFICATION	R-2, A-3, B
TYPE OF CONSTRUCTION	TYPE III-A WOOD FRAME
SPRINKLER SYSTEM	NFPA 13
ALLOWABLE STORIES	5 STORIES (TYPE III-A)

- GENERAL NOTES**
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 2. THE RESIDENTIAL UNITS WILL BE DESIGNED TO BE ACCESSIBLE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE

Figure 4

3.0 Regulatory Context

The following is a list of the key local, state, and federal laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from project impacts relevant to the Project.

3.1 Federal Laws and Regulations

3.1.1 Federal Endangered Species Act (FESA)

The Federal Endangered Species Act (FESA) of 1973 defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.” Under provisions of Section 9(a)(1)(B) of the FESA, unless properly permitted, it is unlawful to “take” any listed species. “Take” is defined in Section 3(18) of FESA: “...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the US Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification as forms of “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action which could affect a federally listed plant or animal species, the property owner and agency are required to consult with USFWS pursuant to Section 7 of the Endangered Species Act (ESA) if there is a federal nexus, or pursuant to Section 10 of the ESA. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. All references to federally-protected species in this biological assessment include the most current published status or candidate category to which each species has been assigned by USFWS.

3.1.2 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, Federal permits issued for activities that potentially impact migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

3.1.3 Federal Clean Water Act (CWA)

The Clean Water Act (CWA), Section 401 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board administers the certification program in California. Section 404 establishes a permit program administered by the United States Army Corps of Engineers (Corps) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The Corps implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with Corps (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

3.1.4 Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and fall under the jurisdiction of several regulatory agencies. The Corps exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the Ordinary High-Water Mark (OHWM). The OHWM is defined as the “line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed 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.”

The definition of waters of the United States has undergone several iterations, including a much more streamlined definition which was published and formally adopted in April 2020. However, in August 2021, the April 2020 Navigable Waters definition was challenged in the case *Pascua Yaqui Tribe v. Environmental Protection Agency*. In light of this case and subsequent order from US District Court for the District of Arizona, the U.S. Environmental Protection Agency (EPA) and Corps have halted implementation of the Navigable Waters Protection Rule from 2020 and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime. Then in March 2023 following a Supreme Court decision, the rule was once again changed and finalized to codify the pre-2015 definition with some revisions to the definition of waters of the United States and wetlands. On August 29, 2023 the EPA and Corps issued a final rule to amend the prior definition of waters of the United States. The final rule conforms with the definition of waters of the United States to the US Supreme Court’s May 25, 2023 decision in the case *Sackett v. Environmental Protection Agency*. As a result of the case, key aspects of the regulatory text have been amended to conform to the Court’s

decision, which revised the definitions of waters of the United States and became effective on September 8, 2023.

The September 2023 ruling codified the term (a) waters of the United States to mean:

1. Waters which are:
 - i. 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;
 - ii. The territorial seas; or
 - iii. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
 - i. Waters identified in paragraph (a)(1) of this section; or
 - ii. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
 - iii. Waters identified in paragraph (a)(2) or (3) of this section when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;
5. Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.
6. Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:
 - i. That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or
 - ii. That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by Corps as "those areas that are inundated or saturated by surface

or groundwater 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” (33 CFR 328.3[a]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present and, as outlined within the March 2023 ruling, have adjacency with relative permanent, standing or continuously flowing bodies of water with continuous connection to Waters of the US. Wetlands must meet the parameters as outlined above classified as a wetland by Corps.

It is important to note that the RWQCB definition of wetland was redefined, and the new definition went into effect May 28, 2020. The definition of a wetland is 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. This RWQCB modified three-parameter definition is similar to the federal definition in that it identifies three wetland characteristics that determine the presence of a wetland: wetland hydrology, hydric soils, and hydrophytic vegetation. Unlike the federal definition, however, the RWQCB wetland definition allows for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland.

Examples of waters that would be considered wetlands by the RWQCB definition, but not by the federal wetland definition, are non-vegetated wetlands, or wetlands characterized by exposed bare substrates like mudflats and playas, as long as they meet the three-parameters as described in the RWQCB definition. It is important to note that while the Corps may not designate a feature as a wetland, that feature could be considered a special aquatic site or other water of the U.S. by the Corps and potentially subject to Corps’ jurisdiction.

3.2 California State Laws and Regulations

3.2.1 California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is “consistent” with the CESA under California Fish and Game Code (FGC) Section 2080.1. For projects that would result in take of a

species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

3.2.2 California Fish and Game Code Section 1600-1616

Section 1602 of the California Fish and Game Code requires notifying CDFW prior to any project activity that might (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) 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. If, after this notification, the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will need to be obtained. CDFW may then place conditions in the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

3.2.3 California Fully Protected Species

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

3.2.4 Protection of Birds

Section 3503.5 of the California Fish and Game Code states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Activities that result in the abandonment of an active bird of prey nest may also be considered in violation of this code. In addition, California Fish and Game Code, Section 3511 prohibits the taking of any bird listed as fully protected, and California Fish and Game Code, Section 3515 states that it is unlawful to take any non-game migratory bird protected under the MBTA.

3.2.5 Porter-Cologne Water Quality Act – California Code, Division 7

The RWQCB also has jurisdiction over waters deemed “isolated” or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County v. Corps decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state and prospective dischargers are required to obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Under Section 401 of the CWA, the local RWQCB (for this project, the Santa Ana RWQCB) must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland

acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

3.2.6 California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code §§ 1900-1913) requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. The California Native Plant Protection Act gives the CDFW the power to designate native plants as “Endangered” or “Rare” and prohibits the take of such plants with certain exceptions.

3.2.7 Sensitive Plant Communities

Sensitive plant communities include those habitat types considered sensitive by resource agencies, namely CDFW, due to their scarcity and/or their ability to support State and Federally-listed Endangered, Threatened, and Rare vascular plants, as well as several sensitive bird and reptile species. CDFW maintains a natural plant community list, the List of California Terrestrial Natural Communities. Sensitive natural communities (also referred to by CDFW as ‘rare’, ‘special-status’, or ‘special concern’) are identified on the list by an asterisk and are considered high priority vegetation types (CDFW 2003; CDFW 2000).

3.2.8 California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for Threatened and Endangered by CDFW. CNPS has developed five categories of rarity, of which Ranks 1A, 1B, and 2 are particularly considered sensitive.

Sensitive species that occur or potentially could occur within the Study Area are based on one or more of the following: (1) the direct observation of the species within the Study Area during any field surveys; (2) a record reported in the CNDDDB; and (3) the Study Area is within known distribution of a species and contains appropriate habitat.

3.2.9 Native Plant Protection Act (NPPA)

California’s Native Plant Protection Act (NPPA) requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants (FGC Sections 1900-1913). Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

3.3 Other Regulations

3.3.1 Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP)

The Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) was prepared in cooperation with the California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service (USFWS). The NCCP/HCP focus' on creating a multiple-species, multiple-habitat subregional Reserve System and implementing a long-term adaptive management program that will protect coastal sage scrub (CSS) and other habitats and species located within the CSS habitat mosaic, while providing for economic uses that will meet the social and economic needs of the people of the subregion.

The primary goal of the NCCP/HCP is to protect and manage habitat supporting a broad range of plant and animal populations. To accomplish this goal, the NCCP/HCP creates a subregional habitat Reserve System and implements a coordinated program to manage biological resources within the habitat reserve. Specific project purposes of the NCCP/HCP are:

- planning for the protection of multiple-species and multiple-habitats within the coastal sage scrub habitat mosaic by creating a habitat Reserve System that contains substantial coastal sage scrub, chaparral, grasslands, riparian, oak woodlands, cliff and rock, forest and other habitats;
- developing a conservation program that shifts away from the current focus on project by-project, single species protection to conservation and management of many species and multiple habitats on a subregional level;
- allowing social and economic uses within the subregion that are compatible with the protection of Identified Species and habitats;
- protecting the federally-listed coastal California gnatcatcher in a manner consistent with Section 10(a) of the FESA and the Special4(d) Rule for the gnatcatcher while providing for future Incidental Take of the species;
- protecting the other two "target species," the coastal cactus wren and orange-throated whiptail lizard, by treating them "as if they were listed" under Section 10(a) of FESA and allowing Incidental Take of these species;
- protecting non-CSS habitat within the CSS habitat mosaic at a level comparable to the protection provided for CSS, thereby contributing to the protection of a broader range of species than just the target species or CSS species;
- addressing the habitat needs of the non-target species within the subregion and the non-CSS habitats, including protecting six other federally-listed species consistent with FESA Section 10(a) and treating 30 other "identified" species "as if they were listed" under Section 10(a) of the FESA;

- addressing the conservation of sensitive species located on the Dana Point Headlands site, including the coastal California gnatcatcher, Pacific pocket mouse, other Identified Species and five designated plant species;
- building upon prior regional open space planning that has occurred in Orange County and integrating that open space planning into the creation of the habitat Reserve System and subregional conservation strategy; and
- addressing impacts to CSS and non-CSS habitats and related NCCP/HCP species addressed in the Joint EIR/EIS in a manner that will be used and relied upon in conjunction with future environmental reviews and documents.

UCI enrolled in the NCCP in 1996 as a "participating landowner." Participating landowners are public and private landowners contributing significant land and/or funding toward implementation of the subregional NCCP Reserve System and adaptive management program. For these landowners, development activities and uses that are addressed by the NCCP for areas outside the Reserve System, and associated impacts to habitat occupied by listed and other species identified by the NCCP, are considered fully mitigated under the NCCP Act, FESA, and CESA. Satisfactory implementation of the NCCP under the terms of an Implementation Agreement (IA) means that no additional mitigation is required of "participating landowners" for impacts to "identified" species and their habitat, or for species residing in specified non-coastal sage scrub habitats, in areas outside the subregional NCCP Reserve System.

3.4 Regulatory Permits

This report is prepared pursuant to and in support of California Environmental Quality Act (CEQA), and any applicable regulatory permit applications, including the California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (SAA), Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification (WQC), United States Army Corps of Engineers (Corps) Section 404 permit, and United States Fish and Wildlife Service Section 7 Biological Opinion.

4.0 Survey and Methods

Preparation for this biological assessment began with a review of relevant available literature and review of historical biological documentation for the Study Area. This effort was followed by onsite field surveys to assess the existing habitat, map any onsite sensitive plant communities and jurisdictional waters, and determine whether special status plant and wildlife species occur or potentially occur within the Study Area.

4.1 Literature Review

The assessment began with a review of relevant available literature on the biological resources within the Study Area and Project Vicinity.

4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the criteria listed below.

- The habitat is recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the Corps pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of the CDFW pursuant to Sections 1600 through 1612 of the California Fish and Game Code.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

4.1.2 Critical Habitat

Under the ESA, the federal government is required to designate "critical habitat" for any species it lists under the ESA. Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. Section 3 of the ESA defines critical habitat as:

- The specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection.
- The specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

"Conservation" means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the ESA is no longer necessary. Critical habitat receives protection under Section 7(a)(2) of the ESA through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Section 7(a)(2) also requires conferences on federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat.

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Study Area is within any species' designated Critical Habitat (USFWS 2025a). The USFWS regulatory mapping process for the designation of critical habitat is broad-based mapping exercise of areas that may or may not include constituent elements of the critical habitat designation. Due to this approach in mapping, large areas are designated as critical habitat regardless of the existing habitat, and as a result may include developed areas, such as buildings, roads, hardscape, and other such facilities, as well as natural habitats.

The constituent elements of the critical habitat designation consider the physical and biological features needed for life processes and successful reproduction of the listed species, including:

- Space for individual and population growth for normal behavior;
- Habitat cover or shelter;
- Food, water, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitat that is protected from disturbance or is representative of the historical geographic and ecological distribution of a species.

4.1.3 Special Status Plants and Wildlife

Species of plants and animals are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Plant and wildlife species are considered "special status" species if they meet any of the following criteria.

- Taxa with official status under ESA, CESA, and/or the NPPA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, the United States Forest Service (USFS), the United States Bureau of Land Management (BLM), and/or the California Department of Forestry and Fire Protection (CDF).
- Plants that meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
 - Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2) (CNPS 2025). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.

- Species that may warrant consideration on the basis of local significance or recent biological information.
- Some species included on the CNDDDB Special Plants, Bryophytes, and Lichens List (CDFW 2025g).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant and wildlife species. Special status plant and wildlife species that have the potential to occur within the immediate region of the Study Area were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Study Area, and included the following sources listed below:

- The CNDDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants and wildlife that may exist within a two-mile radius of the Project site. A CNDDDB search was performed by assessing a two-mile radius around the Study Area (CDFW 2025f). CNDDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area.
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (**Figure 5**) (USFWS 2025a).
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS 2025). A search for the USGS 7.5-Minute Topographic Map *Tustin* and the surrounding seven quadrangles (*Anaheim, Orange, Black Star Canyon, Newport Beach, El Toro, Laguna Beach, and San Juan Capistrano*) provided information regarding the distribution and habitats of special status vascular plants in the Project Vicinity.
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review was used as a resource to better understand the biological resources potentially occurring within the Study Area. Although the inventory list of special status plant and wildlife species was not exhaustive of all species that might occur on the property, it provides a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is based

on documented occurrences where surveys have taken place for individual projects; therefore, a lack of documented occurrence does not necessarily indicate that a given species is absent from the Study Area.

4.1.4 Jurisdictional Waters

The following sources were reviewed to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, and their location within the watersheds associated with the Study Area, and other features that might contribute to federal or state jurisdictional authority located within watersheds associated with the Study Area:

- National Wetlands Inventory (NWI) maps (USFWS 2025c). The NWI database indicates potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. This database is used as a preliminary indicator of wetland habitats because the satellite data are not precise.
- Title 33 Code of Federal Register (CFR): Navigation and Navigable Waters Part 328
- USGS National Hydrography Dataset (NHD). Provides the locations of “blue-line” streams as mapped on 7.5-Minute Topographic Map coverage.
- Aerial Imagery (Google Earth©) (Google 2025).
- USGS 7.5-Minute Topographic Maps.
- Natural Resource Conservation Service (NRCS) Soil Survey.

4.1.5 Orange County Natural Community Conservation Plan/Habitat Conservation Plan

The UCI campus, including the Project site, is located in the NCCP/HCP Coastal Subregion. A NCCP/HCP Reserve is located 0.57 miles west from Site B and 0.81 miles west from Site A. The Project site is not located within a sensitive area or preserve designated area (**Figure 6**).

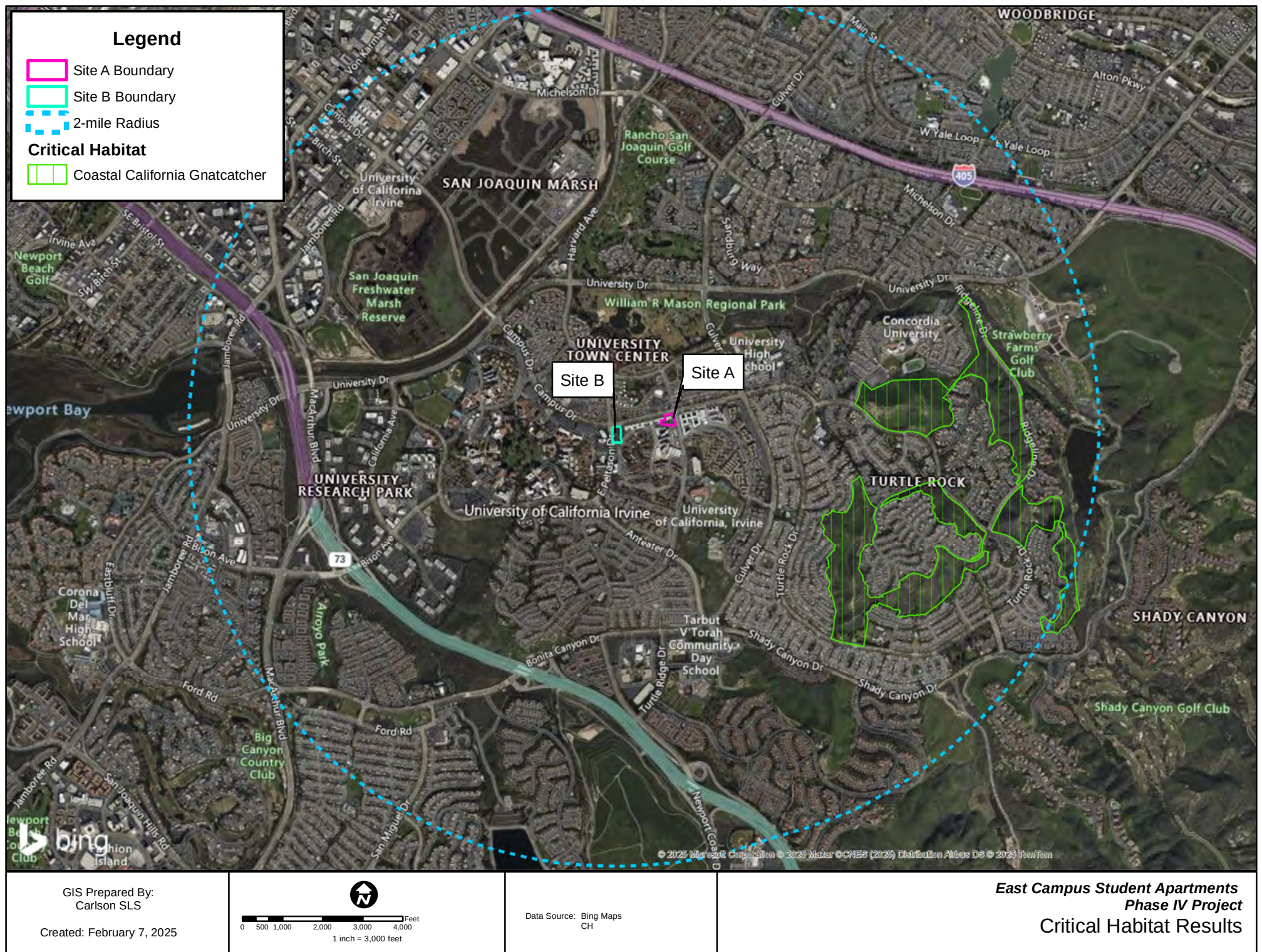




Figure 6

4.2 Biological Survey

4.2.1 General Biological Survey

A field survey was performed on November 27, 2024 by CSLS biologist Brianna Bernard to assess and map vegetation communities, plants, and wildlife, and to identify habitat areas that could be suitable for special status plant species.

Plant species were identified using plant field and taxonomical guides, such as *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012). Vegetation communities were characterized utilizing vegetation alliances in accordance with *The Manual of California Vegetation, Second Edition (MCVII)* (Sawyer et al. 2009). Where necessary, deviations were made on best professional judgment when areas did not fit into a specific habitat description provided by MCVII. Plant communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph and a Trimble R1 GNSS Receiver paired with the ARC Geographical Information System (ARCGIS) Collector Application was utilized during the survey. All plant species encountered during the field survey were identified and recorded in field notes. Information regarding the presence of suitable habitat and soils to support the species, known records or occurrence within the area, and known distribution and elevation range obtained from the relevant literature was used to determine presence or absence of sensitive species.

The CSLS biologist paid special attention to those habitat areas that had the potential to provide suitable habitat for special status plant and wildlife species. Aerial photographs and maps were used to assist in the delineation of plant community boundaries. Following field mapping, the plant communities were digitized, and the vegetation map was created.

General wildlife surveys were conducted on foot and with binoculars within the Study Area. All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. The biologist also recorded signs of wildlife species including animal tracks, burrows, nests, scat, and remains. Binoculars were used to aid in the identification of observed wildlife. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. Photographs were taken to document existing conditions within the Study Area (**Appendix A**).

4.2.2 Regional Connectivity/Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more

mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information (MacArthur and Wilson 1967, Soule 1987, Harris and Gallagher 1989). Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "meta-population." The long-term health of each deme within the meta-population is dependent upon its size and the frequency of interchange of individuals (immigration versus emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity.
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction.
- Serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions).
- Seasonal migration.
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing" to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

- Travel route: a landscape feature (such as a ridge line, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to

another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

- Wildlife corridor: a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species.
- Wildlife crossing: a small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings are typically manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often “choke points” along a movement corridor.

5.0 Results

A field survey and jurisdictional delineation was performed on November 27, 2024 by CSLS biologist Brianna Bernard to assess and map vegetation communities, plants, and wildlife, and to identify habitat areas that could be suitable for special status plant species or jurisdictional features.

Table 1. Survey Information

Survey Date	Time	Temp.	Surveys	Surveyors
November 27, 2024	8:00am-10:00am	Sunny /partially cloudy conditions with weather ranging from 61°F - 70°F	Biological Assessment and Jurisdictional Delineation	Brianna Bernard

5.1 Vegetation Communities

The vegetation communities and habitat conditions were inspected to confirm presence and habitat quality of the vegetation found onsite. Vegetation mapping and acreages for each vegetation community is based on the observations of the field survey, which are listed below in **Table 2** and graphically depicted on **Figure 7**. Representative photographs of the vegetation communities can be found in **Appendix A**. A complete list of species observed onsite can be found in **Appendix B**.

The deviations from MCVII alliance categories include ruderal, ornamental, disturbed and developed communities. The deviations were made due to the lack of alliances for these communities within MCVII. The field survey analyzed the Project site and a surrounding 300-foot buffer around the Project site to determine the existing

vegetation types. As shown on **Figure 7**, the surrounding 300-foot buffer consists primarily of developed and ornamental vegetation communities.

Table 2. Vegetation Community Observed

Vegetation Community	Acreage within the Site A (acres)	Acreage within the Site B (acres)	Acreage within the 300-foot Buffer (acres)
Developed/Disturbed	1.75	1.50	28.58
Riparian Habitat ¹	-	-	0.28 ¹
Mitigation Area ¹			
Riparian Area			0.07 ¹
Bankfull Channel			0.04 ¹
TOTAL	1.75	1.50	28.97
1. The riparian habitat and Mitigation Area occurs to the east of Site B within the 300-foot buffer area.			

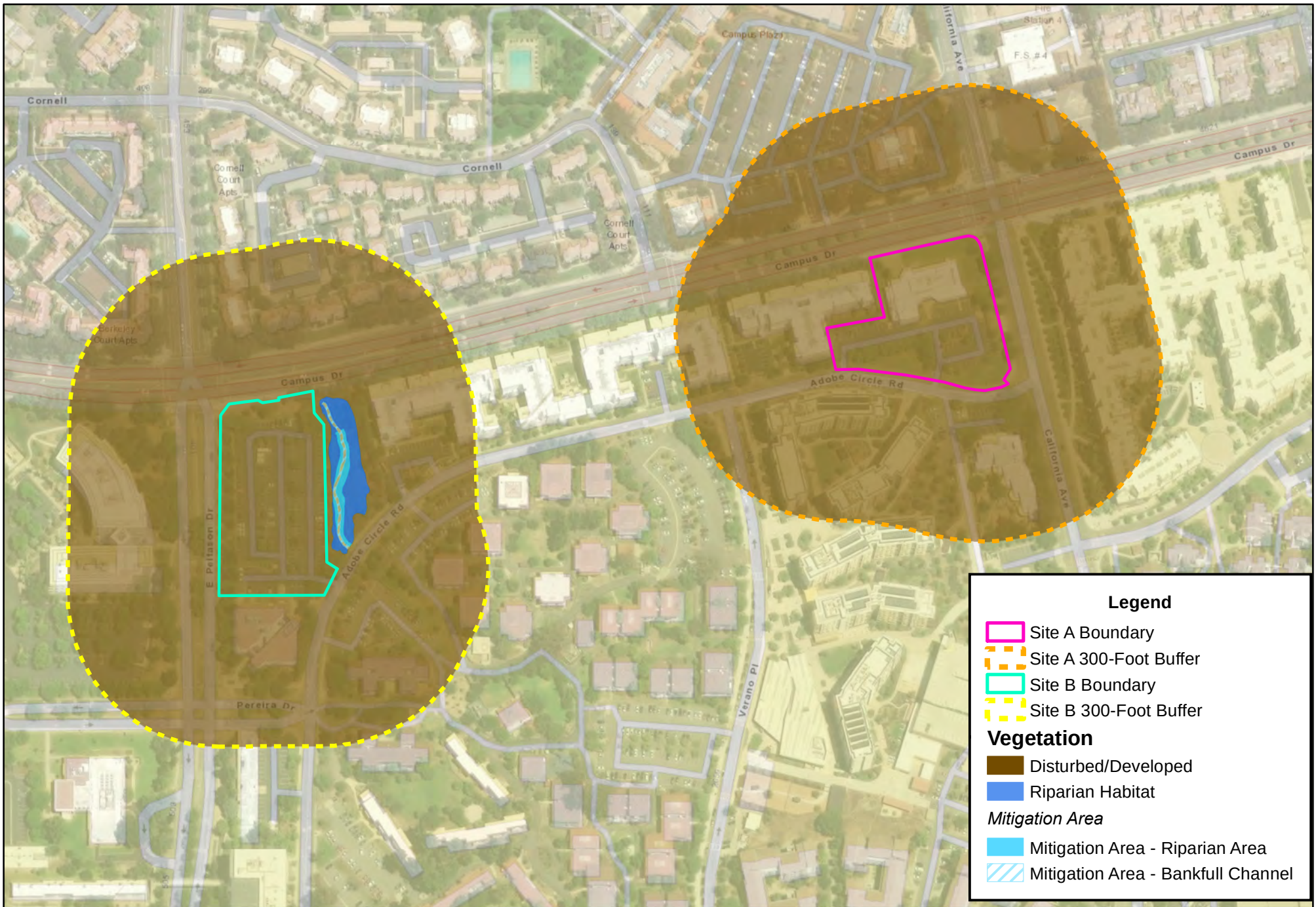
The general description of the habitat observed during the field survey are described below.

5.1.1 Developed/Disturbed

The developed/disturbed community consists of a single building, asphalt parking lots scattered with ornamental species, and concrete sidewalks. Species observed within this community include vinegartree (*Lophostemon confertus*), Indian coral tree (*Lophostemon confertus*), golden raintree (*Koelreuteria paniculata*), lemon scented gum (*Corymbia ciriodora*), common camellia (*Camellia japonica*), Honey locust (*Gleditsia triacanthos*), small Philippine acacia (*Acacia confusa*), deergrass (*Muhlenbergia rigens*), pittosporum (*Pittosporum spp.*), and tropical ash (*Fraxinus uhdei*).

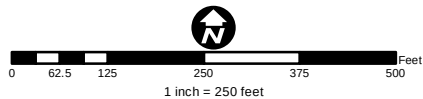
5.1.2 300-foot Buffer Area

The 300-foot buffer consist primarily of built environment to the north, south, west, and east. However, located to the east of Site B includes an approximately 300 linear foot drainage channel vegetated with riparian vegetation. The species include western sycamore (*Platanus racemosa*), summer mustard (*Hirschfeldia incana*), cheeseweed (*Malva parviflora*), California coast live Oak (*Quercus agrifolia*), mugwort (*Artemisia douglasiana*), California brittlebrush (*Encelia californica*), toyon (*Heteromeles arbutifolia*), Fremont's cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), black willow (*Salix gooddingii*), Coyote bush (*Baccharis pilularis*), Mexican elderberry (*Sambucus mexicana*), mulefat (*Baccharis salicifolia*), and queen palm (*Syagrus romanzoffiana*). Portion of the Riparian Habitat include a Mitigation Area for the Verano Place Apartments for the Redevelopment Project. Prior regulatory permits were obtained for those impacts, and the mitigation was installed per outlined requirements. No impacts are anticipated to occur to the Riparian Habitat or associated Mitigation Area.



GIS Prepared By:
Carlson SLS

Created: April 16, 2026



Data Source: Bing Maps
Verano Place Apartments

**East Campus Student Apartments
Phase IV Project
Vegetation Mapping**

Figure 7

5.2 Special-Status Vegetation Types

A CNDDDB search within the Tustin USGS topographic quadrangle and the surrounding seven quadrangles found six special-status vegetation communities designated by CDFW. The special status vegetation communities include California Walnut Woodland, Riversidian Alluvial Fan Sage Scrub, Southern Coastal Salt March, Southern Sycamore Willow Riparian Forest, Southern Interior Cypress Forest, and Southern Riparian Scrub. The Project site does not contain any of the listed special-status vegetation types.

5.3 Plants

Sensitive plants include those listed, or candidates for listing, by the USFWS and CDFW; and species considered sensitive by the CNPS (particularly Lists 1A, 1B, and 2). Several sensitive plant species were reported in the vicinity of the Study Area based on the CNDDDB, within the 8-quadrangle search. A total of fourteen sensitive plant species occurs within the USGS 7.5' Tustin quadrangle and a brief description of the species is included below. Special status plant species with the potential to occur in the Study Area within the 8-quadrangle search were analyzed based on distribution, habitat requirements, and existing site conditions and found in **Appendix C**. All plant species observed within the Study Area during the field survey on November 27, 2024 are listed in **Appendix B**.

Coulter's saltbush (*Atriplex coulteri*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Orange, Riverside, Ventura, San Diego, Anacapa Island, Santa Barbara, San Clemente Island, Santa Cruz Island, San Luis Obispo, San Miguel Island, San Nicolas Island, and Santa Rose Island Counties.

Habitat(s): The species occurs within alkaline or clay soils supporting coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland habitats. Known from 3 to 460 meters (9 to 1,500 feet) MSL. Blooms March through October.

Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during the field survey.

South Coast saltscale (*Atriplex pacifica*)

Status: California Rare Plant Rank 1B.2

Distribution: Anacapa Island, Los Angeles, Orange, Santa Barbara, San Clemente Island, Santa Catalina Island, Santa Cruz Island, San Diego, San Nicolas Island, Santa Rosa Island, and Ventura Counties.

Habitat(s): Habitats supporting coastal bluff scrub, coastal dunes, coastal scrub, and playas. Known from 0 to 140 meters (0 to 460 feet) MSL. Blooms March through October.

Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during the field survey.

Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Orange, Riverside, Santa Barbara, Santa Catalina Island, Santa Cruz Island, San Diego, San Luis Obispo, Santa Rosa Island, and Ventura Counties.

Habitat(s): Alkaline soils supporting coastal bluff scrub and coastal scrub. Known from 10 to 200 meters (32 to 660 feet) MSL. Blooms April through October.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Southern tarplant (*Centromadia parryi* ssp. *australis*)

Status: California Rare Plant Rank 1B.1

Distribution: Los Angeles, Orange, Santa Barbara, Santa Catalina Island, San Diego and Ventura Counties.

Habitat(s): Habitats supporting marshes and swamps (margins), valley and foothill grasslands (vernally mesic), and vernal pools. Known from 0 to 480 meters (0 to 1,575 feet) MSL. Blooms May through November.

Status onsite: None. The site lacks suitable habitats and soil. Not observed during the field survey.

Many-stemmed dudleya (*Dudleya multicaulis*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.

Habitat(s): Often clay soils supporting chaparral, coastal scrub, and valley and foothill grassland. Known from 15 to 790 meters (50 to 2,600 feet) MSL. Blooms April through July.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)

Status: California Rare Plant Rank 1A

Distribution: Los Angeles, Orange, San Bernardino

Habitat: Habitats include marshes and swamps (freshwater, coastal salt) Known from 10 to 1,525 meters (35 to 5005 feet) MSL. Blooms August through October.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)

Status: California Rare Plant Rank 1B.1

Distribution: Colusa, Kern, Los Angeles, Merced, Orange, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, Solano, Santa Rose Island, Tehama, Ventura, and Yolo Counties.

Habitat(s): Habitats include marshes and swamps (coastal salt), playas, and vernal pools. Known from 1 to 1,220 meters (3 to 4,000 feet) MSL. Blooms February through June.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Mud nama (*Nama stenocarpa*)

Status: California Rare Plant Rank 2B.2

Distribution: Imperial, Kings, Los Angeles, Orange, Riverside, San Clemente Island, and San Diego Counties.

Habitat(s): Habitats include marshes and swamps (lake margins, riverbanks). Known from 5 to 500 meters (16 to 1,600 feet) MSL. Blooms January through July.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Gambel's water cress (*Nasturtium gambelii*)

Status: Federally endangered, State threatened, and California Rare Plant Rank 1B.1

Distribution: Los Angeles, Orange, Santa Barbara, San Luis Obispo and San Diego Counties.

Habitat(s): Habitats include marshes and swamps (fresh water or brackish). Known from 5 to 330 meters (16 to 1,000 feet) MSL. Blooms April through October.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Allen's pentachaeta (*Pentachaeta aurea* ssp. *allenii*)

Status: California Rare Plant Rank 1B.1

Distribution: Orange

Habitat(s): Coastal scrub (openings), Valley and foothill grassland. Known from 75 to 520 meters (245 to 1,705 feet) MSL. Blooms March through June.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Chaparral ragwort (*Senecio aphanactis*)

Status: California Rare Plant Rank 2B.2

Distribution: Alameda, Contra Costa, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, Santa Barbara, San Bernardino, San Benito, Santa Clara, Santa Cruz, Santa Catalina Island, Santa Cruz Island, San Diego, San Francisco, San Luis Obispo, San Mateo, Solano, Santa Rose Island, Tulare, and Ventura Counties.

Habitat(s): This species may occur in alkaline soils supporting chaparral, cismontane woodland and coastal scrub. Known from 15 to 800 meters (50 to 2,600 feet) MSL. Blooms January through April (May).

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Salt spring checkerbloom (*Sidalcea neomexicana*)

Status: California Rare Plant Rank 2B.2

Distribution: Kern, Los Angeles, Orange, Riverside, San Bernardino, Ventura, and San Diego Counties.

Habitat(s): Alkaline or mesic soils supporting chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, or playas. Known from 15 to 1,530 meters (50 to 5,000 feet) MSL. Blooms March through June.

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

Estuary seablite (*Suaeda esteroa*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Orange, Santa Barbara, San Diego, and Ventura Counties.

Habitat(s): Marshes and swamps (coastal salt). Known from 0 to 5 meters (0 to 16 feet) MSL. Blooms (May) July through October (January).

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

San Bernardino aster (*Symphyotrichum defoliatum*)

Status: California Rare Plant Rank 1B.2

Distribution: Los Angeles, Riverside, San Bernardino, and San Diego Counties.

Habitat(s): Near ditches, streams, and springs and associated habitats including Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Known from 2 to 2,040 meters (7 to 6,700 feet) MSL. Blooms July through November (December).

Status onsite: None. The Project site lacks suitable habitat and soil. Not observed during the field survey.

As determined through the field survey conducted, no special status plant species were observed within the Project site and there is no potential for special status plant species to occur on the Project site because the Project site is developed with buildings and asphalt parking lots.

5.4 Critical Habitat

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project site is within any species designated Critical Habitat. The Project site and surrounding buffer area are not located within any designated Critical Habitat overlay. The closest designated Critical Habitat is located approximately 0.90 miles east of Site A and 1.11 miles east of Site B for the coastal California gnatcatcher (*Poliophtila californica*) [CAGN]) (Figure 5). No suitable habitat for the CAGN occurs onsite.

5.5 Wildlife

Special status wildlife species with the potential to occur within the Study Area were analyzed based on the species identified in USGS 7.5' Tustin quadrangle, distribution,

habitat requirements, and existing site conditions. No special status wildlife was identified or observed within the Project site during the field survey. The following species, which are also listed within the Cooper's Hawk, Tricolor blackbird, Southern California rufous-crowned sparrow, White-tailed kite, California Horned Lark, Yellow-breasted chat, Coastal California gnatcatcher, California least tern, Southwestern Pond Turtle, Grasshopper Sparrow, Burrowing Owl, Crotch Bumble Bee, American Bumble Bee, Coastal Cactus Wren, Mexican Long-tongued Bat, Western Beach Tiger Beetle, Western Yellow-Billed Cuckoo, Yellow Rail, Red-diamond Rattlesnake, Western Mastiff Bat, California Black Rail, Belding's Savannah Sparrow, Pacific Pocket Mouse, Coast Horned Lizard, Light-footed Ridgway's rail, Southern California saltmarsh shrew, and Western Spadefoot. A brief description of those species and their habitat is included below. A complete list of the special status species identified within the 8-quadrangle search and potential to occur onsite can be found in **Appendix D**.

Cooper's Hawk (*Accipiter cooperii*)

Status: Watch List

Habitat(s): Breeds primarily in riparian areas and oak woodlands and is most common in montane canyons. It frequents landscapes where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching. Dense stands with moderate crown-depths are usually used for nesting. They hunt in broken woodland and habitat edges. Within the range in California, it most frequently uses dense stands of live oak, riparian deciduous or other forest habitats near water. They are also found and can breed in suburban and urban settings.

Status onsite: None. No potential onsite for nesting or foraging due to the lack of large trees. Not observed during the field survey.

Tricolor blackbird (*Agelaius tricolor*)

Status: State threatened

Habitat(s): Colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat composed of grassland, woodland, or agricultural cropland.

Status onsite: None. No suitable nesting habitat or foraging habitat is found within the Project site. Not observed during the field survey.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)

Status: Watch List

Habitat(s): They are found on grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush. Optimal habitat consists of sparse, low brush or grass, hilly slopes preferably interspersed with boulders and outcrops. The species may occur on steep grassy slopes without shrubs if rock outcrops are present.

Status onsite: None. No suitable habitat is found within the Project site. Not observed during the field survey.

White-tailed kite (*Elanus leucurus*)

Status: California Fully-Protected Species

Habitat(s): This species prefers cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetland habitats.

Status onsite: None. White-tailed kites are highly adapted to urbanized areas and tolerant of human activity. The ornamental trees found onsite are too small, however, very minimal suitable nesting habitat and suitable roosting sites occur within 300 foot buffer. Foraging habitat is not present within the Project site. No sightings of this species occurred during the field survey for this report; however, several pairs of white-tailed kites are known to occur on the UCI campus and surrounding area. Due to the known occurrence of the species in the area, the potential for occurring onsite is none, however, has low roosting potential to occur within the adjacent Mitigation Site.

California Horned Lark (*Eremophila alpestris actia*)

Status: CDFW watch list

Habitat(s): A year-long resident within the state and within a variety of open habitats, usually where trees and large shrubs are absent. They are not particular about the nature of the field, so long as it has very little vegetation. Range-wide, they breed in level or gently sloping short grass prairies, montane meadows, "bald" hills, open coastal plains, fallow grain fields, alkali flats, and rangelands. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Yellow-breasted chat (*Icteria virens*)

Status: CDFW species of special concern

Habitat(s): In southern California they are primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south to Central America.

Status onsite: None. No suitable habitat occurs onsite due to the lack of riparian woodlands. Not observed during the field survey.

Coastal California gnatcatcher (*Polioptila californica californica*)

Status: Federally Threatened, CDFW species of special concern

Habitat(s): Coastal sage scrub of varying subtypes, sometimes riparian, chaparral, and other habitats as well.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

California least tern (*Sternula antillarum browni*)

Status: Federally and State threatened

Habitat(s): California least terns live along the coast. They nest on open beaches kept free of vegetation by the tide. The typical colony size is 25 pair.

Status onsite: None. While the species tends to live along the coast, historically several California least tern have been visually observed flying over the Project site, and portion of the UCI campus, by local Sea and Sage Audubon birders and UCI Biologist. However, the Project site does not contain suitable habitat and the species was not observed during the field survey.

Southwestern Pond Turtle (*Actinemys pallida*)

Status: Species of Special Concern, BLM Sensitive

Habitat(s): The Southwestern pond turtle's habitat are ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Grasshopper Sparrow (*Ammodramus savannarum*)

Status: Species of Special Concern

Habitat(s): The grasshopper sparrow generally prefers moderately open grasslands and prairies with patchy bare ground. They also appear to use abandoned croplands that are dominated by grassy species.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Burrowing Owl (*Athene cunicularia hypugaea*)

Status: Species of Special Concern, BLM Sensitive, Bird of Conservation Concern, State Candidate Endangered

Habitat(s): Burrowing owls are a year-round resident of California including habitats of open, dry grassland, and desert. They are generally restricted to mostly flat, open country with suitable nest sites. They use rodent or other burrows for roosting and nesting cover and acquire their burrows from either abandonment or eviction.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Crotch Bumble Bee (*Bombus crotchii*)

Status: State Candidate Endangered

Habitat(s): The crotch bumble bee inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)

Status: Species of Special Concern, Forrest Service Sensitive, Bird of Conservative Concern

Habitat(s): Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Mexican Long-tongued Bat (*Choeronycteris Mexicana*)

Status: Species of Special Concern

Habitat(s): The Mexican long-tongued bat preferred habitats include desert and montane riparian, desert succulent shrub, desert scrub, and pinyon-juniper habitats. Roosts in crevices, mines and bridges.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)

Status: Federally Threatened, State Endangered, BLM Sensitive, Forrest Service Sensitive, Bird of Conservation Concern

Habitat(s): This species is an uncommon to rare summer resident of valley foothill and desert riparian habitats in scattered locations in California. Formerly much more common and widespread throughout lowland California. Roosts and nests in densely foliated, deciduous trees and shrubs in extensive thickets, particularly willows.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Yellow Rail (*Coturnicops noveboracensis*)

Status: Species of Special Concern, Forrest Service Sensitive, Bird of Conservation Concern

Habitat(s): Yellow Rails occur in shallow marshes with fairly short vegetation. For breeding, taller emergent vegetation like cattails does not attract Yellow Rails, but they sometimes nest nearby, where water is shallower and vegetation shorter. They often nest among sedges and bulrushes. Because water levels change frequently in the prairies, nesting locations are not consistent in some areas from year to year. Migrating Yellow Rails turn up in wet meadows, shallow marshes, and agricultural fields with grassy cover or heavy stubble. Wintering Yellow Rails use shallow wetlands as they do in breeding areas, typically dominated by sedges, rushes, bulrushes, and grasses.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Red-diamond Rattlesnake (*Crotalus ruber*)

Status: Species of Special Concern, Forrest Service Sensitive

Habitat(s): It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all

the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake, however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats. They need rodent burrows, cracks in rocks or surface cover objects

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Western Mastiff Bat (*Eumops perotis californicus*)

Status: Species of Special Concern, BLM Sensitive

Habitat(s): Western mastiff bats are found in a variety of habitats, such as semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban, but the species' distribution may be geomorphically determined, occurring primarily where there are significant rock features offering suitable roosting habitat. A cliff dwelling species, where maternity colonies of 30 to several hundred roost generally under exfoliating rock slabs and rock crevices along cliffs. Western mastiff bats can also be found in similar crevices in large boulders and buildings. When roosting in rock crevices they require a sizable drop from their roost in order to achieve flight. Western mastiff bats prefer deep crevices that are at least 15 or 20 feet above the ground. Foraging is concentrated around bodies of water but also includes coastal sage scrub, chaparral, and grassland habitats.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

California Black Rail (*Laterallus jamaicensis coturniculus*)

Status: Fully Protected, State Threatened, BLM Sensitive, Bird of Conservation Concern,

Habitat(s): Black Rails nest in marshes and wet meadows across North America, including riparian marshes, coastal prairies, saltmarshes, and impounded wetlands. All of the habitats have stable shallow water. Nests are primarily made of southern cattail or spikerush and are elevated above the mud substrate in clumps of vegetation. Black rails have also been known to nest on top of a mat of dead vegetation from the previous years' growth.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)

Status: State Endangered

Habitat(s): A year-long resident within coastal salt marshes of southern California. Belding's are ecologically associated with dense pickleweed, particularly *Salicornia virginica*, within which most nests are found. Breeding territories can be very small and they nest semicolonially or locally concentrated within a larger block of habitat, all of

which may appear generally suitable. They can be difficult to count accurately since they are secretive and forage throughout a marsh, often well away from nesting sites.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Pacific Pocket Mouse (*Perognathus longimembris pacificus*)

Status: Federally Endangered, Species of Special Concern

Habitat(s): Pacific pocket mouse is a small, burrowing rodent that primarily feeds on seeds and is associated with fine grain, sandy substrates in coastal strand, coastal dunes, river alluvium and coastal sage scrub habitats within approximately 2.5 miles of the ocean in southern California.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Coast Horned Lizard (*Phrynosoma blainvillii*)

Status: Species of Special Concern, BLM Sensitive,

Habitat(s): Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland and riparian woodlands.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Light-footed Ridgway's rail (*Rallus obsoletus levipes*)

Status: Fully Protected, State Endangered, Federally Endangered

Habitat(s): The light-footed Ridgway's rail uses southern California coastal salt marshes, lagoons, and their maritime environs. The species nest in the lower littoral zone of coastal salt marshes where dense stands of cordgrass are present. They require shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high water.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Southern California saltmarsh shrew (*Sorex ornatus salicornicus*)

Status: Species of Special Concern

Habitat(s): The Southern California salt marsh shrew is confined to coastal salt marshes in Los Angeles, Orange, and Ventura counties. Historically, it was reported from Point Mugu marsh in Ventura County south to the vicinity of Naples in Los Angeles County.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Western Spadefoot (*Spea hammondi*)

Status: Species of Special Concern, BLM Sensitive

Habitat(s): May be found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Within these habitats, they require rain pools/vernal

pools in which to reproduce and that persist with more than three weeks of standing water in which to metamorphose successfully. They can also breed in slow-moving streams (e.g., areas flooded by intermittent streams). Water breeding sites must lack fish, bullfrogs, and crayfish in order for to successfully reproduce and metamorphose. They estivate in sandy, gravelly soil in upland habitats adjacent to potential breeding sites in burrows approximating 1 meter in depth.

Status onsite: None. No suitable habitat occurs onsite. Not observed during the field survey.

Summary of Sensitive Wildlife Species

No special status wildlife species or evidence of their presence were observed or heard during the field survey. The Project site occurs in an area of the UCI campus that is heavily trafficked and consists of primarily developed environment. Given the Project site's developed nature and lack of suitable habitat there is no opportunity any of the identified sensitive wildlife species to occur within the Project site.

5.5.1 Wildlife Species Observed or Detected

Wildlife activity was minimal, and the species observed are typical urbanized species. The animal species or signs thereof observed during the CSLS survey is listed below:

Birds:

- Yellow rumped warbler (*Setophaga coronate*)
- Black phoebe (*Sayornis nigricans*)
- Lesser goldfinch (*Spinus psaltria*)
- House finch (*Haemorhous mexicanus*)
- Orange-crowned warbler (*Leiothlypis celata*)
- American crow (*Corvus brachyrhynchos*)
- Nuttall's woodpecker (*Picoides nuttallii*)

5.6 Regional Connectivity/Wildlife Movement

The Project site does not support regional wildlife movement. The Project site is a developed site and is constrained on all sides by the UCI campus which constrains potential regional wildlife movement through the Project site. The Study Area is not identified within the NCCP/HCP as a regional corridor.

Furthermore, the Project site does not function as a corridor for smaller or "local" movement through the Project site. The Project site is developed/disturbed vegetation community and provides limited foraging opportunities for avian species.

Bird species may fly over the Project site and utilize the ornamental species for nesting, although this is expected to be limited due to the high level of human activity on the Project site and overall developed environment. In summary, the site does not support live-in and movement habitat for species on a local scale. Due to development surrounding the site, the site provides no function to facilitate movement for wildlife

species on a regional scale and it is not identified within the NCCP/HCP as a regionally corridor.

5.7 Jurisdictional Areas

5.7.1 Summary of Jurisdictional Waters

No drainages occur on the Project site. The site is a developed building and associated parking lots. A drainage feature occurs offsite within the Mitigation site, which is located east of Site B. That offsite drainage would be regulated under the RWQCB and CDFW. Additional information on the Mitigation site is included above in the Project History Section.

5.7.2 Waters of the United States

The Project site does not contain any drainages or wetlands that meet the definition of Waters of the United States.

5.7.3 Waters of the State

The Project site does not include Waters of the State that meet CDFW characteristics in accordance with FGC Section 1600. Furthermore, wetlands or riparian habitat occurs onsite.

5.8 Soils Mapping

The United States Department of Agriculture Natural Resources Conservation Service lists three soil types (series) for the Study Area (**Figure 8**). Please see below for the following soil types onsite, which is used to determine the possibility for sensitive wildlife and plant species onsite. No unique soil types, such as clays for vernal pools or soils for sensitive or rare plants, exist on the Project site. Furthermore, no soils that would potentially provide hydrophilic soils for vernal pools occur onsite.

- Bosanko clay, 9 to 15 percent slopes
- Myford sandy loam, 9 to 30 percent slopes, eroded
- Myford sandy loam, 2 to 9 percent slopes, eroded



Figure 8

6.0 Threshold of Significance

Appendix G of the CEQA Guidelines is used by public agencies in determining whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

- | | |
|------------------------|---|
| Threshold BIO-A | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? |
| Threshold BIO-B | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? |
| Threshold BIO-C | Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? |
| Threshold BIO-D | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? |
| Threshold BIO-E | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? |
| Threshold BIO-F | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? |

For the purposes of this impact analysis the following definitions apply:

- "Substantial adverse effect" means loss or harm of a magnitude which, based on current scientific data and knowledge would: (1) substantially reduce population numbers of a listed, candidate, sensitive, rare, or otherwise special status species; (2) substantially reduce the distribution of a sensitive plant community/habitat type; or (3) eliminate or substantially impair the functions and values of a biological resource (e.g., streams, wetlands, or woodlands) in a geographical area defined by interrelated biological components and systems. In the case of this analysis, the prescribed geographical area is considered to be the region

that includes the USGS topographic quadrangle for the site. For some species, the geographic area may extend to the vicinity of the site based on known distributions of the species.

- "Conflict" means contradiction of a magnitude, which based on foreseeable circumstances, would preclude or prevent substantial compliance.
- "Rare" means: (1) that the species exists in such small numbers throughout all, or a significant portion of, its range that it may become endangered if its environment worsens; or (2) the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the FESA.

7.0 Significance Determination and Proposed Mitigation

7.1 Regulatory Setting

Sensitive species are provided protection by either Federal or State resource management agencies, or both, under provisions of the FESA and CESA.

There are a number of performance criteria and standard conditions that must be met as part of any review and approval of the proposed project. These include compliance with all of the terms, provisions, and requirements with applicable laws that relate to Federal, State, and local regulating agencies related to potential impacts to sensitive plant and wildlife species, wetlands, riparian habitats, and blue lined stream courses. Impacts are sometimes locally important but not significant because, although they would result in an adverse alteration of existing local conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

7.2 Project Related Impacts

For the purpose of this assessment, Project-related impacts consist of direct and indirect impacts. Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of no to low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

The determination of impacts in this analysis is based on the proposed Project development plan and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Any recommended mitigation measures to address impacts are discussed below, along with compliance of existing regulations.

7.2.1 Impacts to Vegetation Communities

Direct impacts resulting from Project implementation consist of any ground-disturbing activities (i.e., vegetation removal, grading, paving, structures, landscaping, fuel modification zone, etc.). These areas would be permanently affected by the construction of the Project. Calculations are based on the currently proposed development design in conjunction with the vegetation map from the field survey and aerial imagery. The proposed development plan can be found on **Figures 3 and 4**.

Indirect temporary impacts to plant communities include the effects of fugitive dust created by grading activities, vehicle construction traffic, or offsite discharge of surface water runoff with its associated erosion and sedimentation. Grading-related dust could settle on plant surfaces and indirectly inhibit metabolic processes such as photosynthesis and respiration. Grading-related erosion, runoff, sedimentation, soil compaction, and alteration of drainage patterns may affect plants by altering site conditions so that the location in which they are growing becomes unfavorable. Another example of indirect impacts includes the introduction and spread of invasive, exotic plants which could result in permanent indirect impacts to adjacent native plant communities.

Figure 9 and **Table 3** describe and list the approximate total acreages of vegetation communities that will be impacted by Project activities within the Project boundary. It is anticipated that the entire Project site of Site A and Site B would be impacted with the implementation of the Project. No impacts are anticipated to occur on the Mitigation site located east of Site B.

Table 3. Vegetation Community Impacts

Vegetation Community	Existing Vegetation (acres)	Impacts (acres)
Developed/Disturbed	3.25 ¹	3.25 ²
TOTAL	3.25	3.25
1. Site A consists of 1.75 acres. Site B Consists of 1.50 acres. 2. Impacts occur to 1.75 acres on Site A and 1.50 acres on Site B.		

As with other UCI projects, the Project is proposed to be a design build. Although the current proposed site plan shows impacts to the entire Project site, the Project would not directly or indirectly impact any of the riparian habitat associated with the Mitigation site located to the east of the Site B, which is the area with higher biological value.

Direct impacts to the acres of developed/disturbed community onsite from Project implementation is not significant because these areas consist of built environment and non-native ornamental vegetation. Further, the vegetation species found within the developed/disturbed communities include common plant species which are present in large numbers throughout the region and the removal is not considered significant.

Indirect impacts to the surrounding 300-foot buffer area could occur from construction related dust. The vegetation communities located within the open space to the east exhibit a low level of disturbances, such as pedestrian trails; the area consists of ruderal, coastal sage scrub, disturbed and developed vegetation communities. Construction BMP's such as compliance with air quality regulations would require watering during construction activities to minimize dust. Further, this area is not within the NCCP/HCP preserve area.

7.2.2 Jurisdictional Impacts

No jurisdictional features occur onsite. Furthermore, no riparian or wetlands occur onsite. No impacts are anticipated to occur offsite to the drainage that occurs within the Mitigation site located east of Site B.

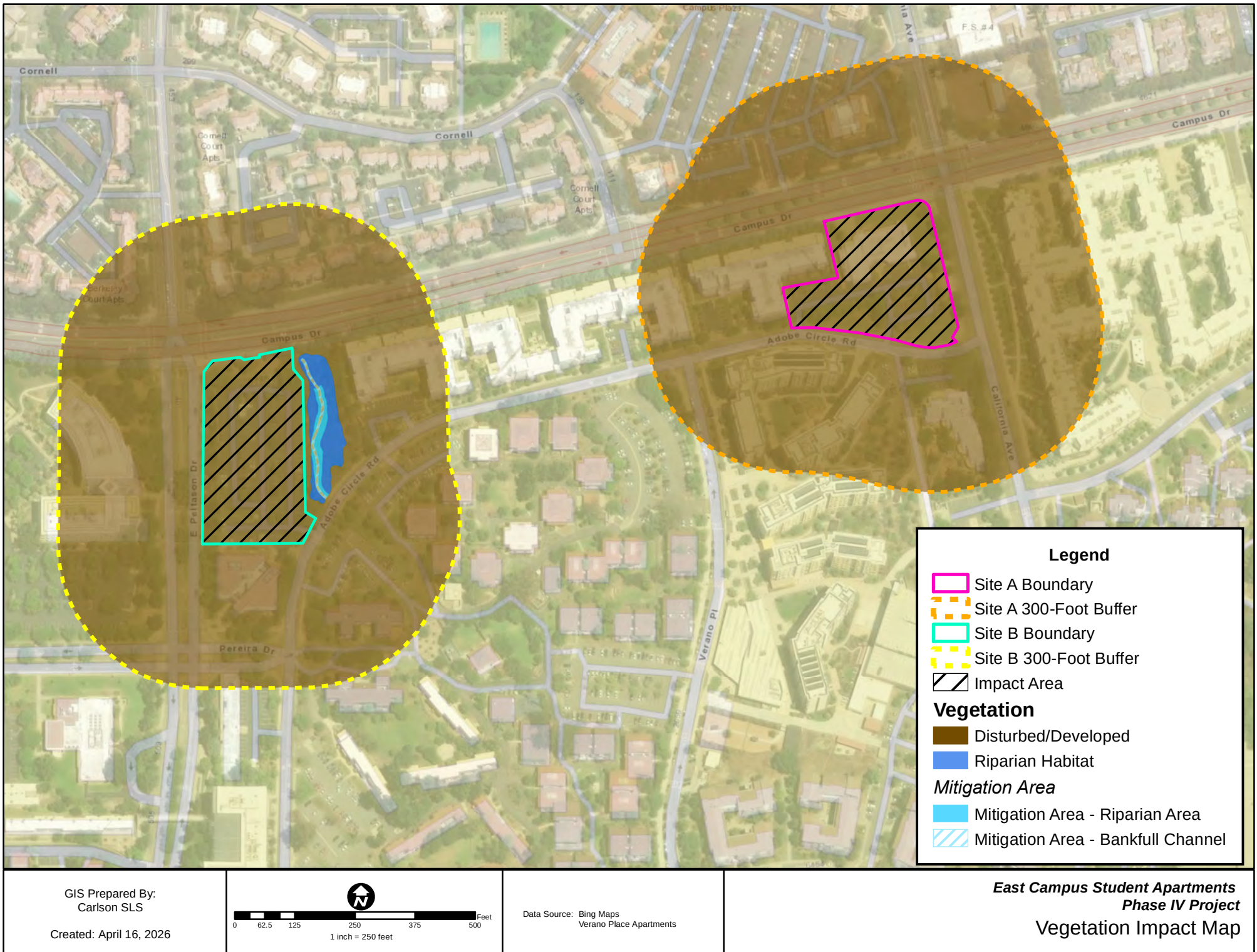


Figure 9

7.3 Threshold BIO - A

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated.

7.3.1 Sensitive Plant Species

As determined through the field survey, no special status plant species were observed within the Project site. There is no potential for special status plant species to occur on the Project site due to the built environment and lack of suitable habitat or soil. Therefore, no impact would occur for either Site A or Site B.

7.3.2 Sensitive Wildlife Species

As determined through the field survey, no special status wildlife has potential to occur onsite due to the built nature of the Project site. The Project site has marginal nesting habitat for avian species as identified within the non-native ornamental vegetation at both Site A and Site B. The site is developed with a building and associated parking lots at Site A and a parking lot with non-native ornamental vegetation at Site B.

While no suitable habitat occurs onsite of either Site A or Site B, there is limited suitable roosting habitat for the white-tailed kite (California Fully-Protected Species) within the offsite riparian area located to the east of Site B. White-tailed kites are highly adapted to urbanized areas and tolerant of human activity. Foraging habitat is not present within the Project site. No sightings of this species occurred during the field survey for this report; however, several pairs of white-tailed kites are known to occur on the UCI campus and surrounding area. Due to the known occurrence of the species in the area, the potential for occurring onsite is none, however, the species has minimal potential to roost within the adjacent Mitigation Site. Since the Project site is developed and does not contain tall dense treetops for nesting, no impacts to white-tailed kite would occur.

Direct impacts associated with vegetation removal may occur to all avian species covered under the Migratory Bird Treaty Act (MBTA) with the removal of potential nesting and foraging habitat in the form of ornamental trees located at both Site A and Site B. Under **Mitigation Measure BIO-1**, if Project construction is scheduled to occur during the typical breeding bird season (January 1 through August 15 for raptors and February 15 through August 31 for all other avian species), direct removal of vegetation and indirect short-term noise effects to birds that may forage or nest onsite or within the buffer area may occur. In order to reduce direct and indirect impacts on nesting birds, including the White-tailed kite, if vegetation removal and/or construction activities were

to occur during nesting bird season, a pre-construction nesting bird survey would be required within five (5) days of ground disturbances during typical nesting bird season to delineate any active nests found within the Study Area. Should an active nest be observed, a no-work buffer shall occur surrounding the active nest, until determined by the Project Biologist, the nest has become inactive. The implementation of the pre-construction nesting bird survey would prevent any direct or indirect impacts due to the removal of vegetation and construction-related noise on species covered under the MBTA.

Under the Act it is unlawful to harm, harass, or take a nest. Furthermore, pre-construction nesting bird surveys as outlined within **Mitigation Measure BIO - 1** would ensure protection against direct impacts associated with vegetation removal or indirect impacts associated with construction related noise impacts for the white-tailed kite and other avian species covered under the MBTA during the typical nesting bird season. Implementation of **MM BIO-1** would reduce potential impacts to wildlife species to less than significant.

MM BIO - 1: If grading or site disturbance is to occur between January 1 through August 15 for raptors and February 15 through August 31 for all other avian species, a nesting bird survey shall be conducted within all suitable habitat, onsite and within 300-feet surrounding the site (as feasible), by a qualified biologist within no more than 5 days of scheduled vegetation removal or start of ground disturbing activities, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall establish buffers around the vegetation (500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e. the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with the no-work buffers and verify the nesting effort has finished. Work can resume when no other active nests are found onsite or within the surrounding buffer area. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas of an active nest with preparation and implementation of a Nesting Bird Management Plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared documenting mitigation monitoring compliance. If ground disturbances have not commenced within 5 days of a negative survey or if construction activities have stopped for 5 days or longer, the nesting survey must be repeated to confirm the absence of nesting birds.

With the implementation of **MM BIO-1** potential adverse impacts to nesting birds are reduced to a less than significant level.

7.3.3 Critical Habitat

The Study Area does not contain a designated Critical Habitat overlay. Furthermore, the Project site is developed and does not include any suitable habitat for CAGN, which is the closest designated Critical Habitat. Therefore, no impacts would occur.

7.4 Threshold BIO- B

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact.

No jurisdictional features occur on Site A nor Site B; therefore, no impacts would occur. Furthermore, no impacts are anticipated to occur within the offsite drainage located in the Mitigation site east of Site B.

7.5 Threshold BIO - C

Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact.

Neither Site A nor Site B contain any state or federally protected wetlands; therefore, no impacts would occur. Furthermore, no impacts are anticipated to occur within the offsite drainage located in the Mitigation site east of Site B

7.6 Threshold BIO - D

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated.

7.6.1 Wildlife Movement

Neither Site A nor Site B support live-in potential or movement habitat for species on a local scale (i.e., marginal movement habitat for reptile, bird, and mammal species) due to the built environment surrounding the Project site. The sites, both Site A or Site B, provide no function to facilitate wildlife movement on a regional scale due to the primary developed nature of the sites. Furthermore, the sites are not identified as a regionally important dispersal or seasonal migration corridor under the NCCP/HCP. Movement on a local scale likely occurs with species adapted to urban environments due to the surrounding development and disturbances in the vicinity of the site. Although implementation of the Project at each site would result in disturbances to local

wildlife movement within the site, those species adapted to urban areas would be expected to persist on-site following construction. As such, impacts would be less than significant, and no mitigation measures would be required.

7.6.2 Migratory Birds and Raptors

The Study Area supports low potential nesting/foraging habitat for migratory birds within the ornamental species observed within the parking lots. Based on the developed nature of the Site A and Site B, the quality of nesting/foraging habitat is considered to be low. Therefore, no impacts would occur to nesting/foraging habitat and no mitigation measures are required.

The site supports songbirds accustomed to urban settings due to the presence of shrubs and ornamental species. Nesting activity typically occurs from January 1 through August 15 for raptors and February 15 through August 31 for all other avian species. Disturbing or destroying active nests is a violation of the MBTA (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. As such, direct impacts to breeding birds (e.g. through nest removal) or indirect impacts (e.g. by noise causing abandonment of the nest) is potentially significant. Compliance with the MBTA would reduce impacts to a less than significant level, as detailed in **MM BIO-1**.

7.7 Threshold BIO - E

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact.

Site A and Site B are not subject to any local policies, such as a tree preservation ordinance, that protect biological resources. Therefore, no impacts would occur, and no mitigation is necessary.

7.8 Threshold BIO - F

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact.

While the Study Area is located within the NCCP/HCP Plan area, neither Site A nor Site B are located within any reserve or preserve designated area of the NCCP/HCP. Furthermore, the sites are not directly located adjacent to NCCP/HCP Preserve area. No impacts would occur to NCCP/HCP preserve area since the Project site is not located within designated preserve or reserve area. Therefore, no impacts would occur, and no mitigation is necessary.

8.0 Cumulative Impacts

The loss of biological resources on the Study Area must be considered in the context of the other development in the area. The Site A and Site B direct impact analysis identified minimal nesting habitat within the ornamental species for avian species, that when combined with impacts from other reasonably past, present, and future projects, could result in a cumulative biological impact. Indirect impacts to nesting birds should construction activities and vegetation removal take place during the typical nesting season. However, adherence and implementation of **MM BIO - 1** would ensure impacts to avian species and their habitats are minimized, thus reducing the Project's contribution to cumulative impacts to less than significant.

The proposed Project located at Site A and Site B constitutes the reuse of an existing developed area within an area that is built and developed. No impacts would occur to the adjacent Mitigation site located to the east of Site B. As UCI continues to build out its Master Plan, future projects must be analyzed for contributions to a cumulative loss of foraging/nesting habitat for avian species. Future projects that reuse existing developed areas, similar to the proposed Project, will likely not contribute to a cumulative loss of foraging habitat.

Since the proposed Project is the reconstructed of a developed area, the proposed Project would not contribute to a cumulative impact, resulting in a less than significant cumulative impact.

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APPENDIX A

Representative Photographs



Looking west over existing building on Site A.



Ornamental plants observed on the frontage of Site A.



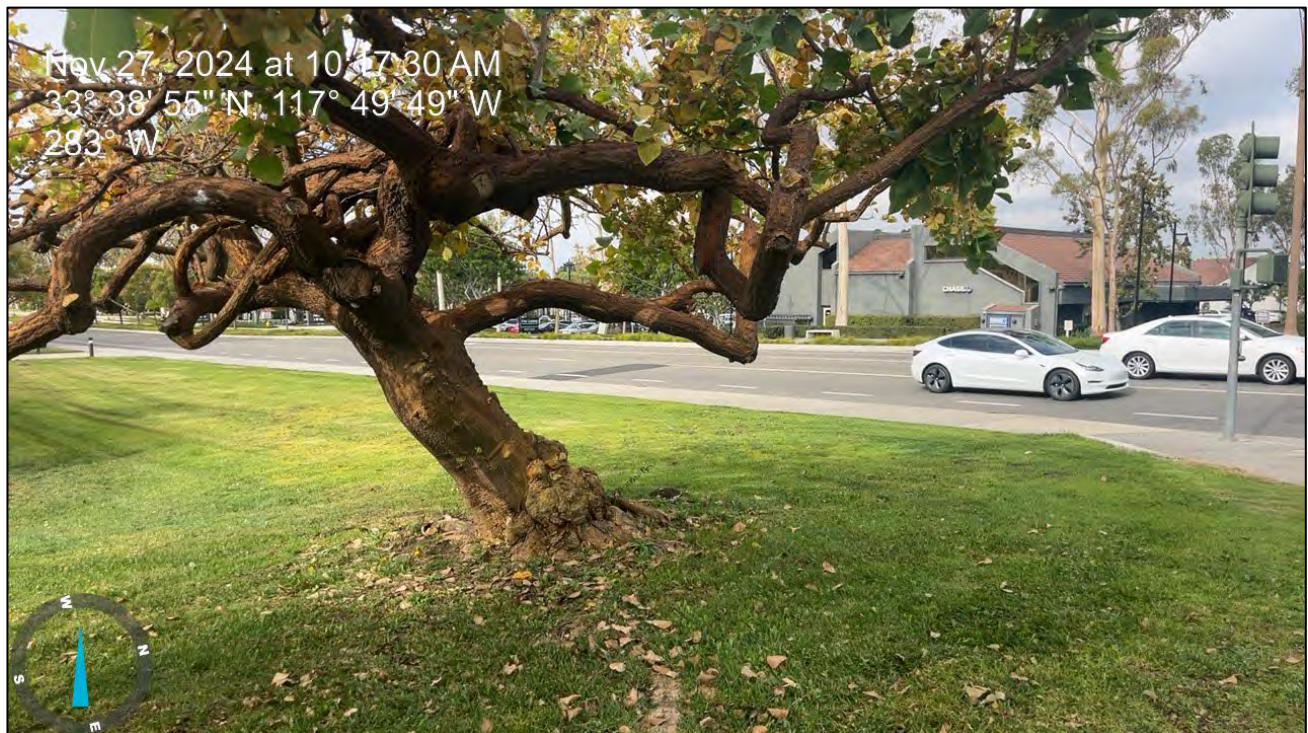
Looking west over parking lot of Site B



Parking lot of Site A.



Ornamental species within parking lot of Site A.



Ornamental tree within Site A



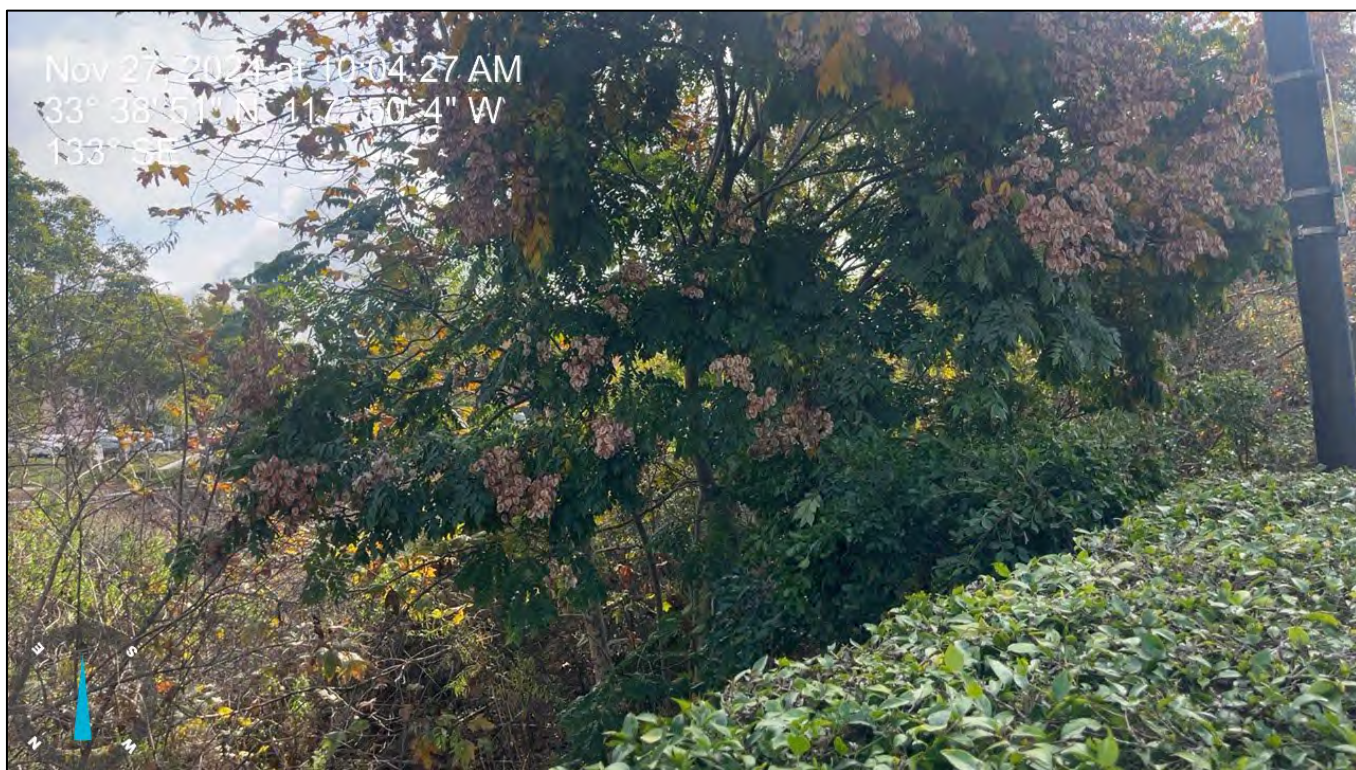
Existing drainage found offsite east side of Site B.



Looking southwest over the existing building found on Site A.



Ornamental species include non-native trees and shrubs.



Ornamental species within the offsite drainage area located east of Site B.



Looking south over Site B, which includes the ornamental vegetation.



Western view over the parking lot on Site B.

APPENDIX B

Plant Species Recorded During the Field Survey

Appendix B contains the list of vascular plant taxa recorded during the biological survey conducted within the Study Area; however ornamental/landscaped vegetation is generally not included. Plant nomenclature and taxonomic order is based on *The Jepson Manual: Vascular Plants of California*, second Edition (Baldwin et al. 2012).

Appendix B

Plant Species Observed during the Field Survey

Scientific Name	Common Name
<i>Acacia confusa</i> *	Small Philippine acacia
<i>Artemisia douglasiana</i>	Mugwort
<i>Baccharis salicifolia</i>	Mulefat
<i>Baccharis pilularis</i>	Coyote bush
<i>Camellia japonica</i> *	Common camellia
<i>Corymbia citriodora</i> *	Lemon Scented gum
<i>Encelia californica</i>	California brittlebrush
<i>Erythrina variegata</i> *	Indian coral tree
<i>Fraxinus uhdei</i> *	Tropical ash
<i>Gleditsia triacanthos</i> *	Honey locust
<i>Heteromeles arbutifolia</i>	Toyon
<i>Hirschfeldia incana</i> *	Summer mustard
<i>Koeleruteria paniculata</i> *	Golden raintree
<i>Lophostemon confertus</i> *	Vinegar tree
<i>Malva parviflora</i> *	Cheeseweed
<i>Muhlenbergia rigens</i>	Deergrass
<i>Pittosporum spp</i> *	pittosporum
<i>Platanus racemosa</i>	Western sycamore
<i>Populus fremontii</i>	Fremont's cottonwood
<i>Quercus agrifolia</i>	California coast live oak
<i>Salix gooddingii</i>	Black willow
<i>Salix lasiolepis</i>	Arroyo willow
<i>Sambucus mexicana</i>	Mexican elderberry
<i>Syagrus romanzoffiana</i> *	Queen palm
Legend	
* exotic plant species	

APPENDIX C

Special Status Plant Species Potential Occurrence Determination

APPENDIX C

Special Status Plant Species Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status plant species within the Project site for the USGS 7.5-Minute Topographic Map Tustin and the surrounding eight quadrangles. During the field surveys, the potential for special status plant species to occur within the Project site was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or recorded on-site by other qualified biologists.
- Known to Occur: observed on site in the recent past, but not observed during the most recent biological survey.
- High potential to occur: observed in similar habitat in the region by a qualified biologist or habitat on the site is a type often utilized by the species, and the site is within the known distribution and elevation range of the species.
- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species, and habitat on the site is a type occasionally used by the species.
- Low potential to occur: the site is within the known distribution and elevation range of the species, but habitat on the site is rarely used by the species or for which there are no known recorded occurrences of the species within or adjacent to the site.
- None: a focused study failed to detect the species or no suitable habitat is present.
- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assessed the probability of occurrence rather than make a definitive conclusion about species presence or absence. Failure to detect the presence of the species is not definitive and may be due to variable effects associated with fire, rainfall patterns, and/or season.

Special Status Plants: Potential to Occur within the Study Area

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
<i>Abronia villosa</i> var. <i>aurita</i>	Chaparral Sand-Verbena	CRPR: 1B.1 BLMS MSHCP:	Chaparral, Coastal scrub, Desert dunes. Known from 75 to 245 meters (1600 to 5350 ft) MSL. Blooms (January) March thru September.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Allium marvinii</i>	Yucaipa Onion	CRPR: 1B.2 BLMS MSHCP:	Chaparral (clay, openings). Known from 760 to 2495 meters (1065 to 3495 ft.) MSL Blooms April thru May	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Aphanisma blitoides</i>	Aphanisma	CRPR: 1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub. Known from 1 to 5 meters (1065 to 3495 ft.) MSL Blooms February thru June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Astragalus brauntonii</i>	Braunton's milk-Vetch	CRPR: 1B.1 FE	Chaparral, Coastal scrub, Valley and foothill grassland. Known from 4 to 15 meters (640 to 2100 ft) MSL. Blooms January thru August.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's Milk-vetch	CRPR: 1B.1 BLMS	Meadows and seeps, Playas. Known from 60 to 195 meters (850 to 2790 ft.) MSL Blooms May thru October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Atriplex coulteri</i>	Coulter's Saltbush	CRPR: 1.B2	Alkaline or Clay soils supporting coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland habitats. Known from 3 to 460 meters (9 to 1,500 feet) MSL. Blooms March through October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Atriplex pacifica</i>	South Coast Saltscale	CRPR: 1.B2	Habitats supporting coastal bluff scrub, coastal dunes, coastal scrub, and playas. Known from 0 to 140 meters (0 to 460 feet) MSL. Blooms March through October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Atriplex parishii</i>	Parish's Brittscale	CRPR: 1B.1	Chenopod scrub, Playas, Vernal pools. Known from 25 to 80 meters (1900 to 6235 ft.) MSL. Blooms June thru October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's Saltscale	CRPR: 1.B2	Alkaline soils supporting coastal bluff scrub and coastal scrub. Known from 10 to 200 meters (32 to 660 feet) MSL. Blooms April through October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Appendix C - Special Status Plant Species Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
<i>Baccharis malibuensis</i>	Malibu Baccharis	CRPR: 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. Known 150 to 490 meters (305 to 1000 ft.) MSL. Blooms August.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Brodiaea filifolia</i>	Thread-leaved Brodiaea	CRPR: 1B1 CE	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools. Known from 25 to 80 meters. (1120 to 3675 ft.) MSL. Blooms March thru June	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Calochortus catalinae</i>	Catalina Mariposa Lily	CRPR:4. 2	Perennial bulbiferous herb. Habitat include chaparral, cismontane woodland, coastal sage scrub, and valley and foothill grasslands. Known from 15 to 700 meters (49 to 2,700 feet) MSL. Blooms March through June	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Calochortus weedii</i> <i>var. intermedius</i>	Intermediate Mariposa Lily	CRPR: 1.B2	Rocky and calcareous soils supporting chaparral, valley and foothill grassland and coastal scrub. Known from 105 to 855 meters (344 to 2,800 feet) MSL. Blooms May through July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Camissoniopsis lewisii</i>	Lewis' Evening Primrose	CRPR: 3	Sandy or clay soils supporting coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, or valley and foothill grasslands. Known from 0 to 300 meters (0 to 984 feet) MSL. Blooms March through May (June).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Centromadia parryi</i> <i>ssp. austral</i>	Southern Tarplant	CRPR: 1.B2	Habitats supporting marshes and swamps (margins), valley and foothill grasslands (vernally mesic), and vernal pools. Known from 0 to 480 meters (0 to 1,575 feet) MSL. Blooms May through November.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Chaenactis glabriuscula</i> <i>var. orcuttiana</i>	Orcutt's Pincushion	CRPR: 1B.1	Coastal bluff scrub (sandy), Coastal dunes. Known from 0 to 0 meters (100 to 330 ft.) MSL. Blooms January thru August.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Chloropyron maritimum</i> <i>ssp. maritimum</i>	Salt Marsh Bird's-Beak	CRPR: 1B.2 FE, CE	Coastal dunes, Marshes and swamps (coastal salt). Known from 0 to 0 meters (30 to 100 ft.) MSL. Blooms May thru October (November).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Chorizanthe parryi</i> <i>var. fernandina</i>	San Fernando Valley	CRPR: 1B.1 CE	Coastal scrub (sandy), Valley and foothill grassland. Known from 150 to 490 meters	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Appendix C – Special Status Plant Species Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
	Spineflower		(1220 to 4005 ft.) MSL. Blooms from April thru July.	
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Long-spined Spineflower	CRPR: 1B.2 BLMS	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools. Known from 30 to 100 meters (1530 to 5020 ft.) MSL. Blooms April thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Summer Holly	CRPR:1B.2	Chaparral, Cismontane woodland. Known from 30 to 100 meters (790 to 2590 ft.) MSL. Blooms April thru June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Convolvulus simulans</i>	Small-flowered Morning-Glory	CRPR: 4.2	Clay soils and serpentinite seeps supporting coastal scrub, chaparral (openings), or valley and foothill grasslands. Known from 30 to 740 meters (98 to 2,400 feet) MSL. Blooms March through July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Dudleya multicaulus</i>	Many-stemmed Dudleya	CRPR: 1B.2	Chaparral, coastal scrub, and valley and foothill grassland. Often found on clay soils or granitic outcrops. Known from below 800 meters (< 2,600 feet) MSL. Blooms May through July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Dudleya stolonifera</i>	Laguna Beach Dudleya	CRPR: 1B.1 FT, CT	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. Known from 10 to 35 meters (260 to 855 ft.) MSL. Blooms May thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River Woollystar	CRPR: 1B.1 FE, CE	Chaparral, Coastal scrub (alluvial fans). Known from 91 to 300 meters (610 to 2000 ft.) MSL. Blooms April thru September.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego Button-celery	CRPR: 1B.1 FE, CE	Coastal scrub, Valley and foothill grassland, Vernal pools. Known from 20 to 65 meters (620 to 2035 ft.) MSL. Blooms April thru June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Euphorbia misera</i>	Cliff Spurge	CRPR:2B.2	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub. Known from 10 to 35 meters (500 to 1640 ft.) MSL Blooms (October) December thru August.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles Sunflower	CRPR: 1A	Habitats include marshes and swamps (coastal salt and freshwater). Known from 10 to 1,525 meters (32 to 5,000 feet) MSL. Blooms August	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Appendix C – Special Status Plant Species Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
			through October.	
<i>Hesperocyparis forbesii</i>	Tecate Cypress	CRPR: 1B.1, BLMS	Chaparral, Closed-cone coniferous forest. Known from 80 to 260 meters (1500 to 4920 ft.) MSL	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Hordeum intercedens</i>	Vernal Carley	CRPR: 3.2	Habitats include coastal dunes, coastal scrub, valley and foothill grasslands (saline flats and depressions), and vernal pools. Known from 5 to 1,000 meters (16 to 3,300 feet) MSL. Blooms March through June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Horkelia cuneata</i> var. <i>puberula</i>	Mesa Horkelia	CRPR: 1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub. Known from 70 to 230 meters (810 to 2660 ft.) MSL. Blooms February thru July (September)	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent Goldenbush	CRPR: 1B.2 BLMS	Chaparral, Coastal scrub (often disturbed areas, sandy) Known from 10 to 35 meters (250 to 820 ft.) MSL. Blooms April thru November.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's Goldfields	CRPR: 1B.2	Habitats include marshes and swamps (coastal salt), playas, and vernal pools. Known from 1 to 1,220 meters (3 to 4,000 feet) MSL. Blooms February through June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Lepechinia cardiophylla</i>	Heart-leaved Pitcher Sage	CRPR: 1B.2	Chaparral, Cismontane woodland, Closed-cone coniferous forest. Known from 520 to 1705 meters (1370 to 4495 ft.) MSL. Blooms April thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's Pepper-Grass	CRPR: 4.3	Habitats include chaparral and coastal scrub. Known from 1 to 885 meters (3 to 2,900 feet) MSL. Blooms January through July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	Intermediate Monardella	CRPR: 1B.3 BLMS	Chaparral, Cismontane woodland, Lower montane coniferous forest (sometimes). Known from 400 to 1310 meters (1250 to 4100 ft.) MSL. Blooms April thru September.	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Appendix C - Special Status Plant Species Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
<i>Nama stenocarpa</i>	Mud Nama	CRPR: 2B.2	Habitats include marshes and swamps (lake margins, riverbanks). Known from 5 to 500 meters (16 to 1,600 feet) MSL. Blooms January through July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Nasturtium gambelii</i>	Gambel's Water Cress	FE, ST CRPR: 2B.2	Habitats include marshes and swamps (fresh water or brackish). Known from 5 to 330 meters (16 to 1,000 feet) MSL. Blooms April through October.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Navarretia prostrata</i>	Prostrate Vernal Pool Pavarretia	CRPR: 1B.2 BLMS	Chaparral, Cismontane woodland, Lower montane coniferous forest (sometimes) Known from 3 to 10 meters (1210 to 3970 ft.) MSL. Blooms from April thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Nemacaulis denudata</i> var. <i>denudata</i>	Coast Woolly-heads	CRPR: 1B.2	Coastal dunes. Known from 0 to 0 meters (100 to 330 ft) MSL Bloom April thru September.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Nolina cismontana</i>	Chaparral Nolina	CRPR: 1B.2	Chaparral, Coastal scrub. Known from 140 to 460 meters (1275 to 4185 ft.) MSL. Blooms (March) May thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Orcuttia californica</i>	California Orcutt Grass	CRPR: 1B.1	Vernal pools. Known from 15 to 50 meters (660 to 2165 ft.) MSL Blooms April thru August.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Penstemon californicus</i>	California Beardtongue	CRPR: 1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland. Known from 1170 to 3840 meters (2300 to 7545 ft.) MSL. Blooms May thru June (August)	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Allen's Pentachaeta	CRPR: 1B.1	Coastal scrub (openings), Valley and foothill grassland. Known from 75 to 245 meters (520 to 1705 ft.) Blooms March thru June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Pseudognaphalium leucocephalum</i>	White Rabbit-tobacco	CRPR: 2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. Known 0 to 0 meters (2100 to 6890 ft.) Blooms (July) August thru November (December).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Quercus dumosa</i>	Nuttall's Scrub Oak	CRPR: 1B.1	Chaparral, Closed-cone coniferous forest, Coastal scrub. Known from 100 to 330 meters (1000 to 3280 ft.) MSL Blooms February thru April.	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Appendix C - Special Status Plant Species Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence within the Study Area
<i>Senecio aphanactis</i>	Chaparral Ragwort	CRPR: 2B.2	Sometimes alkaline soils supporting chaparral, cismontane woodland and coastal scrub. Known from 15 to 800 meters (50 to 2,600 feet) MSL. Blooms January through April (May).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Sidalcea neomexicana</i>	Salt spring Checkerbloom	CRPR: 2B.2	Alkaline or mesic soils supporting chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub, or playas. Known from 15 to 1,530 meters (50 to 5,000 feet) MSL. Blooms March through June.	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Suaeda esteroa</i>	Estuary Seablite	CRPR: 1B.2	Marshes and swamps (coastal salt). Known from 0 to 5 meters (0 to 16 feet) MSL. Blooms (May) July through October (January).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Symphyotrichum defolatum</i>	San Bernardino Aster	CRPR: 1B.2	Near ditches, streams, and springs and associated habitats including Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Known from 2 to 2,040 meters (7 to 6,700 feet) MSL. Blooms July through November (December).	None. The site lacks suitable habitat and soil. Not observed during the field survey.
<i>Verbesina dissita</i>	Big-leaved Crownbeard	CRPR: 1B.1 FT, CT	Chaparral (maritime), Coastal scrub. Known from 45 to 150 meters (205 to 675 ft.) MSL. Blooms (March) April thru July.	None. The site lacks suitable habitat and soil. Not observed during the field survey.

Legend

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).
FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.
SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.

ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

California Rare Plant Ranks (Formerly known as CRPR Lists): the CRPR is a statewide, non-profit organization that maintains, with CDFG, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CRPR and CDFG officially changed the name "CRPR List" or "CRPR Ranks" to "California Rare Plant Rank" (or CPRP). This was done to reduce confusion over the fact that CRPR and CDFG jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CRPR assignment.

CRPR: 1B - California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2 - California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 4 - California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CRPR and CDFG strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

California Native Plant Society (CRPR) Threat Ranks: The CRPR Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Sources:

- Calflora website - search for plants (Calflora 2025).
- CRPR Inventory of Rare and Endangered Plants (CRPR 2025).
- The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000-2004 (CDFW 2025).
- The Jepson Manual: *Vascular Plants of California*, second edition (Baldwin *et al.* 2012).
- RareFind, CDFW, California Natural Diversity Database (CNDDDB) (CDFW 2025f).
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025i).

APPENDIX D

Special Status Wildlife Potential Occurrence Determination

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Special Status Wildlife Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status wildlife species within the Project site for the USGS 7.5-Minute Topographic Map Tustin and the surrounding eight quadrangles. During the field surveys, the potential for special status wildlife species to occur within the Project Site was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or previously recorded on-site by other qualified biologists.
- Known to Occur: observed on site in the recent past, but not observed during the most recent biological survey.
- High potential to occur: observed in similar habitat in the region by a qualified biologist or habitat on the site is a type often utilized by the species, and the site is within the known distribution and elevation range of the species.
- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species, and habitat on the site is a type occasionally used by the species.
- Low potential to occur: the site is within the known distribution and elevation range of the species, but habitat on the site is rarely used by the species or for which there are no known recorded occurrences of the species within or adjacent to the site.
- None: a focused study failed to detect the species or no suitable habitat is present.
- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assessed probability of occurrence rather than make definitive conclusions about species presence or absence. Failure to detect the species is not definitive and may be due to variable effects associated with migration, weather, fire, and/or time of day and year.

Special Status Wildlife: Potential to Occur within the Study Area

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
<i>Accipiter cooperii</i>	Cooper's hawk	WL	The Cooper's hawk breeds primarily in riparian areas and oak woodlands and is most common in montane canyons. It frequents landscapes where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching. Dense stands with moderate crown-depths are usually used for nesting. They hunt in broken woodland and habitat edges. Within the range in California, it most frequently uses dense stands of live oak, riparian deciduous or other forest habitats near water. They are also found and can breed in suburban and urban settings.	None. No potential onsite for nesting or foraging due to the lack of large trees. Not observed during the field survey.
<i>Actinemys pallida</i>	Southwestern Pond Turtle	FPT, SSC, BLMS	The Southwestern pond turtle's habitat are ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Agelaius tricolor</i>	Tricolor blackbird	ST, SSC, BLMS, BBC	Tricolor blackbird colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat composed of grassland, woodland, or agricultural cropland.	None. No suitable nesting habitat or foraging habitat is found within the Project site. Not observed during the field survey.
<i>Aimophila ruficeps canescens</i>	Southern California Rufous-crowned sparrow	WL	They are found on grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush. Optimal habitat consists of sparse, low brush or grass, hilly slopes preferably interspersed with boulders and outcrops. The species may occur on steep grassy slopes without shrubs if rock outcrops are present. It is a very secretive species.	None. No suitable nesting habitat or foraging habitat is found within the Project site. Not observed during the field survey.
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	SSC	Grasshopper sparrows in California breed (and primarily apparently winter) on slopes and mesas containing grasslands of varying compositions. The	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			grasshopper sparrow generally prefers moderately open grasslands and prairies with patchy bare ground. They also appear to use abandoned croplands that are dominated by grassy species. The species frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for foraging and nesting and concealment. They require fairly continuous native grassland areas with occasional taller stems for breeding areas. They tend to avoid grassland areas with extensive shrub cover and the presence of native grasses is less important than the absence of trees.	
<i>Anaxyrus Californicus</i>	Arroyo Toad	SSC	Arroyo toad's habitat is restricted to sandy or gravelly margins of large streams from San Luis Obispo south to Baja, California. , from sea level to 6,000 feet elevation. Habitat includes riparian terraces with oaks, willows, or cottonwoods, and shallow, gravel-bottom pools in streams	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Anniell stebbinsi</i>	Southern California Legless Lizard	SSC	<i>The southern California legless lizard</i> is found in a broader range of habitats than any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Antrozous pallidus</i>	Pallid Bat	SSC, BLMS	The pallid bat's habitat occurs in a number of habitats ranging from rocky arid deserts to grasslands into higher elevation coniferous forests. They are most abundant in the arid Sonoran life zones below 6,000 feet, but have been found up to 10,000 feet in the Sierra Nevada	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Arizona elegans occidentalis</i>	California glossy snake	SSC	The California glossy snake Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Asio otus</i>	Long-eared Owl	SSC	The long-eared owl's favored habitat includes dense trees for nesting and roosting, open country for hunting. Inhabits a wide variety of such settings, including forest with extensive meadows, groves of	None. No suitable habitat occurs onsite. Not observed during the field survey.

Appendix D – Special Status Wildlife Potential Occurrence Determination

Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			conifers or deciduous trees in prairie country, and streamside groves in a desert.	
<i>Aspidoscelis hyperythra</i>	Orange-throated Whiptail	WL	The orange-throated whiptail is uncommon to fairly common over much of its range in Orange, Riverside, and San Diego cos. west of the crest of the Peninsular Ranges, especially in areas with summer morning fog.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Aspidoscelis tigris stejnegeri</i>	Coastal Whiptail	SSC	The Coastal whiptail's habitat requirements can be found in a wide variety of habitats within the California portion of its range, including coastal sage scrub, chaparral, riparian areas, woodlands, and rocky areas	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Athene cunicularia hypugaea</i>	Burrowing Owl	SCE, BLMS, BCC	Burrowing owls are a year-round resident of California including habitats of open, dry grassland, and desert. They are generally restricted to mostly flat, open country with suitable nest sites. They use rodent or other burrows for roosting and nesting cover and acquire their burrows from either abandonment or eviction. Burrowing owls typically hunt from a perch.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Bombus crotchii</i>	Crotch Bumble Bee	SCE	The crotch bumble bee inhabits open grassland and scrub habitats. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Bombus pensylvanicus</i>	American Bumble Bee		The American Bumble Bee is a relatively large bee. The fuzzy black-and-yellow American bumble bee prefers the habitats offered by farmlands and open fields, where they nest below the grass or underground.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Branchinecta sandiegonensis</i>	San Diego Fairy Shrimp	FE	San Diego fairy shrimp occur in groups of vernal pools referred to as vernal pool complexes. Vernal pool complexes tend to include between 5 and 50 vernal pools, although some contain as few as two vernal pools and some contain several hundred vernal pools	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Buteo regalis</i>	Ferruginous Hawk	WL	The ferruginous hawks are migratory and occur in arid grasslands and shrubsteppe habitats.	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
<i>Buteo swainsoni</i>	Swainson's Hawk	ST, BLMS	The Swainson's Hawk often nest peripheral to riparian systems. They will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	Coastal Cactus Wren	SSC, FSS, BBC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Catostomus santaanae</i>	Santa Ana Sucker	FT, SSC	The Santa Ana Suckers are primarily found in small to medium sized streams that flow year-round and may vary in depth from several centimeters to over 1 m deep. They favor cool (<22°C) flowing water where gravel, rubble, and boulder substrates are present	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Charadrius nivosus nivosus</i>	Western Snowy Plover	FT, SSC	The Western Snowy Plovers are found in areas with little or no cover on sandy coastal beaches, salt pans, dry salt ponds, gravel bars, and salt pond levees.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Choeronycteris mexicana</i>	Mexican Long-tongued Bat	SSC	The Mexican long-tongued bat preferred habitats include desert and montane riparian, desert succulent shrub, desert scrub, and pinyon-juniper habitats. Roosts in crevices, mines and bridges.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Coccyzus americanus occidentalis</i>	Western Yellow-Billed Cuckoo	FT, SE, BLMS, FSS, BCC	This species is an uncommon to rare summer resident of valley foothill and desert riparian habitats in scattered locations in California. Formerly much more common and widespread throughout lowland California. Roosts and nests in densely foliaged, deciduous trees and shrubs in extensive thickets, particularly willows.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Coturnicops noveboracensis</i>	Yellow Rail	SSC, FSS, BCC	Yellow Rails occur in shallow marshes with fairly short vegetation. For breeding, taller emergent vegetation like cattails does not attract Yellow Rails, but they sometimes nest nearby, where water is shallower and vegetation shorter. They often nest among sedges and bulrushes. Because water levels change frequently in	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			the prairies, nesting locations are not consistent in some areas from year to year. Migrating Yellow Rails turn up in wet meadows, shallow marshes, and agricultural fields with grassy cover or heavy stubble. Wintering Yellow Rails use shallow wetlands as they do in breeding areas, typically dominated by sedges, rushes, bulrushes, and grasses.	
<i>Crotalus ruber</i>	Red-diamond Rattlesnake	SSC, FSS	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake, however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats. They need rodent burrows, cracks in rocks or surface cover objects.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Danaus plexippus plexippus pop. 1</i>	Monarch – (California overwintering population)	FPT, SE	Monarch butterflies live mainly in prairies, meadows. Grasslands and along roadsides, across most of North America. The adult butterfly drinks nectar from a variety of flowers, uncoiling and extending its long proboscis to sip food	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Elanus leucurus</i>	White-tailed kite	Fully Protected, BLMS	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands and oak woodlands. Dense canopies used for nesting and cover.	None. White-tailed kites are highly adapted to urbanized areas and tolerant of human activity. The ornamental trees found onsite are too small, however, potentially low suitable nesting habitat and suitable roosting sites occur within 300 foot buffer. Foraging habitat is not present within the Project site. No sightings of this species occurred during the field

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
				survey for this report; however, several pairs of white-tailed kites are known to occur on the UCI campus and surrounding area. Due to the known occurrence of the species in the area, the potential for occurring onsite is none, however, has low potential to occur within the adjacent Mitigation Site.
<i>Emys marmorata</i>	Western Pond Turtle	SCC, BLMS	Inhabits permanent or nearly permanent water below 1,830 meters (6000 feet) throughout California, west of the Sierra Cascade.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Eremophila alpestris actia</i>	California Horned Lark	WL	A year-long resident within the state and within a variety of open habitats, usually where trees and large shrubs are absent. They are not particular about the nature of the field, so long as it has very little vegetation. Range-wide, they breed in level or gently sloping short grass prairies, montane meadows, “bald” hills, open coastal plains, fallow grain fields, alkali flats, and rangelands. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Eucyclogobius newberryi</i>	Tidewater Goby	SSC,FE	Tidewater gobies are nearly unique among Pacific coast fish in that they inhabit the fresh-saltwater interface where salinity is less than 10 to 12 parts per thousand	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Eumops perotis californicus</i>	Western Mastiff Bat	SSC, BLMS	Western mastiff bats are found in a variety of habitats, such as semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban, but the species’ distribution may be geomorphically determined, occurring primarily where	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			there are significant rock features offering suitable roosting habitat. A cliff dwelling species, where maternity colonies of 30 to several hundred roost generally under exfoliating rock slabs and rock crevices along cliffs. Western mastiff bats can also be found in similar crevices in large boulders and buildings. When roosting in rock crevices they require a sizable drop from their roost in order to achieve flight. Western mastiff bats prefer deep crevices that are at least 15 or 20 feet above the ground. Foraging is concentrated around bodies of water but also includes coastal sage scrub, chaparral, and grassland habitats.	
<i>Euphydryas editha quino quino</i>	Quino Checkerspot Butterfly	FE	The checkerspot butterfly is only known from western Riverside County, southern San Diego County, and northern Baja California, Mexico. Significant areas of remaining Quino checkerspot butterfly habitat are now protected through inclusion in habitat conservation plan preserve areas	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Gila orcuttii</i>	Arroyo Chub	SSC	The Arroyo Chub is a small cyprinid native to coastal drainages of Los Angeles, Orange, Riverside, and San Diego counties	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Haliaeetus leucocephalus</i>	Bald Eagle	BLMS	The Bald eagles live within two and a half miles of the coast, bays, rivers, lakes, or other bodies of water, reflecting the availability of their main food source. They typically nest in large, mature, accessible trees, as well as cliffs and man-made structures.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Icteria virens</i>	Yellow-breasted Chat	SSC	In southern California they are primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south to Central America.	None. No suitable habitat occurs onsite due to the lack of riparian woodlands. Not observed during the field survey.
<i>Laterallus</i>	California Black	ST, BLMS,	Black Rails nest in marshes and wet meadows across	None. No suitable habitat occurs

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<i>jamaicensis coturniculus</i>	Rail	BBC, FP	North America, including riparian marshes, coastal prairies, saltmarshes, and impounded wetlands. All of the habitats have stable shallow water. Nests are primarily made of southern cattail or spikerush and are elevated above the mud substrate in clumps of vegetation. Black rails have also been known to nest on top of a mat of dead vegetation from the previous years' growth.	onsite. Not observed during the field survey.
<i>Myotis yumanensis</i>	Yuma myotis	BLMS	The Yuma myotis has a wide range throughout western North America, from the Southwestern regions of Canada into Mexico. They occupy a diverse selection of habitats, including forests, riparian zones, deserts, and grasslands	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SSC	The San Diego desert woodrat's habitat consists of a variety of shrub and desert habitat, showing a preference to large cactus patches and rock outcroppings. Range includes southern California and the Great Basin, Mojave and Colorado deserts	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Nyctinomops macrotis</i>	Big Free-tailed Bat	SSC	The big Free-tailed bat appears to be mainly an inhabitant of rugged, rocky habitats in arid landscapes. It has been found in a variety of plant associations, including desert shrub, woodlands, and evergreen forests.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Oncorhynchus mykiss irideus</i> pop. 10	Steelhead - Southern California DPS	FE,SCE	The Southern Steelhead Distribution includes all naturally spawned anadromous Coastal Rainbow trout populations downstream of natural and human-made barriers in streams from the Santa Maria River (San Luis Obispo County) to the Tijuana River on the U.S.-Mexico border.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Onychomys torridus ramona</i>	Southern Grasshopper Mouse	SSC	The Southern grasshopper mouse is most common in arid desert habitats of the Mojave Desert and southern Central Valley of California. Alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert	None. No suitable habitat is found within the Project site. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			habitats, including succulent shrub, wash, and riparian areas	
<i>Pandion haliaetus</i>	Osprey	WL	Ospreys prefer habitats with plenty of shallow water where fish are plentiful. They often built nests on small islands or structures over bodies of water that are difficult for predators to get to.	None. No suitable habitat is found within the Project site. Not observed during the field survey
<i>Passerculus sandwichensis beldingi</i>	Belding's Savannah Sparrow	SE	A year-long resident within coastal salt marshes of southern California. Belding's are ecologically associated with dense pickleweed, particularly <i>Salicornia virginica</i> , within which most nests are found. Breeding territories can be very small and they nest semicolonially or locally concentrated within a larger block of habitat, all of which may appear generally suitable. They can be difficult to count accurately since they are secretive and forage throughout a marsh, often well away from nesting sites.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Perognathus longimembris pacificus</i>	Pacific Pocket Mouse	FE, SSC	Pacific pocket mouse is a small, burrowing rodent that primarily feeds on seeds and is associated with fine grain, sandy substrates in coastal strand, coastal dunes, river alluvium and coastal sage scrub habitats within approximately 2.5 miles of the ocean in southern California.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Phrynosoma blainvillii</i>	Coast Horned Lizard	SSC, BLMS	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland and riparian woodlands.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Poliioptila californica californica</i>	Coastal California Gnatcatcher	FT, SSC	A non-migratory, permanent resident of coastal sage scrub habitat, which is a broad category of vegetation that includes the following plant communities: Ventura coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. They also use chaparral, grassland and riparian habitats next to coastal sage scrub, but these habitats are used	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			dispersal and foraging. They avoid nesting on steep slopes.	
<i>Rallus obsoletus levipes</i>	Light-footed Ridgway's Rail	FE, SE, FP	The light-footed Ridgway's rail uses southern California coastal salt marshes, lagoons, and their maritime environs. The birds nest in the lower littoral zone of coastal salt marshes where dense stands of cordgrass are present. They require shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high water.	None. No suitable habitat occurs onsite. Not observed during the field survey.
<i>Rhinichthys gabrielino</i>	Santa Ana Speckled Dace	SSC	The Santa Ana speckled dace requires permanent flowing streams with summer water temperatures of 17-20 C. Typically, these streams are maintained by outflows of cool springs. The dace inhabits shallow cobble and gravel riffles	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Salvadora hexalepis virgultea</i>	Coast Patch-nosed Snake	SSC	The coast patch-nosed snake inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Setophaga petechia</i>	Yellow Warbler	SSC	The yellow warbler inhabits bushes, swamp edges, streams, and gardens. Breeds in a variety of habitats in east, including woods and thickets along edges of streams, lakes, swamps, and marshes, favoring willows, alders, and other moisture-loving plants.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Sorex ornatus salicornicus</i>	Southern California Saltmarsh Shrew	SSC	The Southern California salt marsh shrew is confined to coastal salt marshes in Los Angeles, Orange, and Ventura counties. Historically, it was reported from Point Mugu marsh in Ventura County south to the vicinity of Naples in Los Angeles County.	None. No suitable habitat is found within the Project site. Not observed during the field survey.
<i>Spea hammondi</i>	Western Spadefoot	SSC, BLMS	May be found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Within these habitats, they require rain pools/vernal pools in which to reproduce and that persist with more than three	None. No suitable habitat occurs onsite. Not observed during the field survey.

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Scientific Name	Common Name	Status	General Habitat Description	Potential For Occurrence
			weeks of standing water in which to metamorphose successfully. They can also breed in slow-moving streams (e.g., areas flooded by intermittent streams). Water breeding sites must lack fish, bullfrogs, and crayfish in order for to successfully reproduce and metamorphose. They estivate in sandy, gravelly soil in upland habitats adjacent to potential breeding sites in burrows approximating 1 meter in depth.	
<i>Sternula antillarum browni</i>	California Least Tern	FE, SE, FP	California least terns live along the coast. They nest on open beaches kept free of vegetation by the tide. The typical colony size is 25 pair.	None. While the species tends to live along the coast, historically several California least tern have been visually observed flying over the UCI campus by local Sea and Sage Audubon birders and UCI Biologist. However, the Project site does not contain suitable habitat, and the species was not observed during the field survey.
<i>Streptocephalus woottoni</i>	Riverside Fairy Shrimp	FE	Riverside fairy shrimp generally live in vernal pools, and other non-vegetated ephemeral pools, that last for short periods of time	None. No suitable habitat is found within the Project site. Not observed during the field survey
<i>Taricha torosa</i>	Coast Range Newt	SSC	The coast range newt are found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands.	None. No suitable habitat is found within the Project site. Not observed during the field survey
<i>Taxidea taxus</i>	American Badger	SSC	American badgers are generally found in grassland, shrubsteppe, desert, dry forest, parkland, and agricultural areas	None. No suitable habitat is found within the Project site. Not observed during the field survey
<i>Thamnophis hammondi</i>	Two-striped Gartersnake	SSC,BLMS	The two-striped gartersnake is highly aquatic and amphibious snake is generally found in or near permanent fresh water, often along streams with rocky beds bordered by willows and other riparian vegetation, including mountain slopes and desert oases.	None. No suitable habitat is found within the Project site. Not observed during the field survey

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<i>Tryonia imitator</i>	California Brackishwater Snail		The habitat of the mimic tryonia is <i>freshwater, Estuarine, Herbaceous wetland and found in brackish salt marshes.</i>	None. No suitable habitat is found within the Project site. Not observed during the field survey
<i>Vireo bellii pusillus</i>	Least Bell's Vireo	FE, SE	Least Bell's vireos primarily occupy riverine riparian habitats that typically feature dense cover within 1-2 m of the ground and a dense, stratified canopy. Typically, it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses. 2,000 feet elevation in the interior. This species is generally restricted to major river systems in San Diego County.	None. No suitable habitat occurs onsite. Not observed during the field survey.

Legend

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act (ESA) of 1973, as amended. The official federal listing of Endangered and Threatened Animals is published in the Federal Register, 50 CFR 17.11.

FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.

FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

FC = federal candidate for listing.

FPT = federally proposed threatened.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals. The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, and Section 670.5.

SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.

ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

SCT = state candidate for listing as threatened.

SCE = state candidate for listing as endangered.

California Department of Fish and Wildlife (CDFW):

SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW 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.

Fully protected = animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

WL = watch list: these birds have been designated as “Taxa to Watch” in the *California Bird Species of Special Concern report* (Shuford and Gardali 2008).

The report defines “Taxa to Watch” as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither), or (3) are currently designated as “fully protected” in California.

United States Fish and Wildlife Service (USFWS):

BCC = USFWS bird of conservation concern: listed in the USFWS'S 2008 *Birds of Conservation Concern* report. The report identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

United States Forest Service (USFS):

FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.”

United States Bureau of Land Management (BLM):

BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

California Department of Forestry and Fire Protection (CDF):

CDF: S = CDF sensitive: species is a California Department of Forestry and Fire Protection sensitive species. The Board of Forestry classifies as sensitive species those species that warrant special protection during timber operations.

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