APPENDIX C

Biological Impact Report

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M&A #20-069-02

Mr. Jeb Hall
Concordia Homes
380 Stevens Avenue, Suite 307
Solana Beach, CA 92075

Biological Resources Impact Analysis Report
Concordia Homes- Cypress Point Project
Located in the City of Oceanside, California

Dear Mr. Hall:

This letter has been prepared by Merkel & Associates, Inc. (M&A) for the Concordia Homes-Cypress Point Project (Project), located within the City of Oceanside, California. If you have any questions concerning this biological letter report, please do not hesitate to contact me at 858-560-5465 or gkrantz@merkelinc.com.

Sincerely,

Gina M. Krantz
Gina Krantz
Senior Biologist/Project Manager

Keith W. Merkel
Keith W. Merkel
Principal Consultant

INTRODUCTION

Purpose of Report

Merkel & Associates, Inc. (M&A) has prepared this biological resource letter report for the proposed Concordia Homes-Cypress Point Project. The purpose of this report is to document the existing biological conditions within the study area; identify potential impacts to biological resources that could result from implementation of the proposed project, and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with the California Environmental Quality Act (CEQA) and applicable federal, state, and local rules and regulations including the City of Oceanside Multiple Habitat Conservation Program (MHCP) Draft Subarea Plan (SAP).

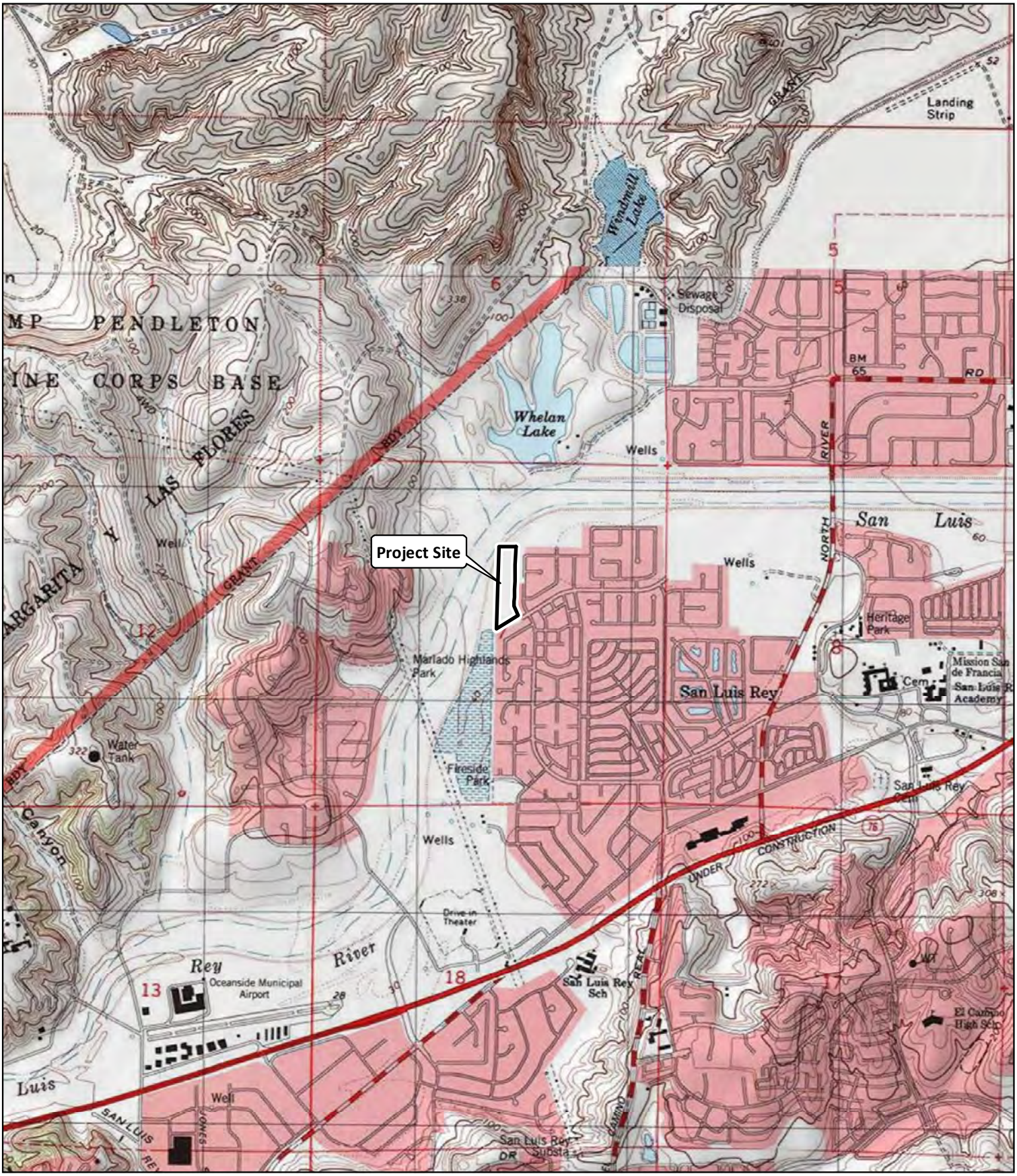
Project Location

The proposed project site consists of a vacant parcel (APN 158-301-46) of approximately 7.3 acres and additional land offsite and directly south of the project parcel that will be dedicated for the proposed Pala Road westerly extension. The proposed project site is located generally directly west of Los Arbolitos Boulevard at the Aspen Street and Pala Road intersections in the northern portion of the City of Oceanside. The property is located adjacent to the San Luis Rey (SLR) River flood channel and SLR trail/bikeway along the top of the flood channel berm, approximately 0.9 mile north of State Route 76 Highway and approximately 0.5 mile southeast of Camp Pendleton within Section 7, Township 11 South, Range 4 West of the USGS San Luis Rey, California Quadrangle (Figure 1).

Project Description

The proposed project is a residential development that includes 54 single-family residences surrounding a private loop road, with a central green space, guest parking, and a proposed Pala Road westerly extension to provide primary access. No streetlights are required throughout the interior project streets and therefore none are proposed (one exception along Pala Road where one streetlight is proposed for safety reasons) (Omega Engineering Consultants, December 14, 2020). Secondary access would be available from Aspen Street, at the midpoint of the project on the east side. The proposed Pala Road westerly extension includes the removal and replacement of existing sewer and storm water pipelines with improved and upgraded systems. The project will construct a box culvert to convey the storm water runoff in Pala Road which changes to a 60" RCP storm drain pipe once clear of the existing City sewer mains and continues westerly to discharge at the same location the existing undersized storm drain pipe discharges. An energy dissipation system consisting of rip rap will be provided at the outfall of the 60" storm drain pipe. In addition, the proposed project includes four storm water bio-basins for water quality. The project also proposes to avoid the breeding season of federally listed least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and light-footed Ridgway's rail (*Rallus obsoletus levipes*) when conducting construction activities that may result in elevated noise levels and/or fugitive dust. These federally listed bird species are known to occupy the reach of SLR River located offsite and adjacent to the proposed project site.

A portion in the northwest corner of the project property has been left undeveloped as part of the City of Oceanside's Draft SAP Hardline Preserve (Preserve) and Wildlife Corridor Planning Zone



Project Vicinity Map

Concordia Homes - Cypress Point

Source: USGS 7.5' San Luis Rey, CA Quadrangle

Figure 1

(WCPZ) as well as to accommodate the existing SLR River flood control berm, trail and concrete brow ditch along the toe of the flood control berm that is also located on the property. The project also proposes habitat enhancement activities within the onsite and offsite SLR River buffer to address a slight encroachment into the Preserve/WCPZ in the northwest corner of the site, as discussedfurther in this report.

METHODS AND SURVEY LIMITATIONS

Literature and Data Review

Historical and currently available biological literature and data pertaining to the project area were reviewed prior to initiation of the field investigation. This review included examination of: 1) aerial photography for the project site (Bing 2020; Google Earth Pro™ 2020); 2) regional vegetation data for the project vicinity (SanGIS 2012); 3) geological substrates and soil types mapped on the project site (USGS 2007 and USDA NRCS 2007, respectively); and 4) California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service (USFWS) GIS Division species occurrences data and designated critical habitat data for the project vicinity (CDFW 2021a; USFWS 2021a and 2019, respectively). In addition, the review included examination of the following reports on the project site and/or in proximity to the project site: 1) Concordia Homes-Los Arbolitos Project report prepared by Merkel & Associates, Inc., dated August 28, 2020 in support of the Project's application to the Federal Emergency Management Agency for a Conditional Letter of Map Revisions Based on Fill conducted on the proposed project property; 2) Biological Resources Constraints Analysis report for the City of Oceanside's Condition Assessment and Access Improvements Project prepared by Helix Environmental Planning, dated October 5, 2017; and 3) San Luis Rey Flood Control Project Whelan Mitigation Site Habitat Restoration Action Draft Supplemental Environmental Assessment and Mitigated Negative Declaration prepared by U.S. Army Corps of Engineers, dated January 2014.

It is important to note that some of the data boundaries shown in some of the report figures are derived from different data sources (federal, regional, city, project engineer) and spatial rectification errors exist across mapping layers. This results in slight offsets that do not match up exactly. To retain the integrity of the mapped data layers, corrections have not been made at this time but will be undertaken prior to CEQA public review to better clarify conditions for the public.

Field Surveys

M&A biologists conducted general biological surveys within the proposed project study area on August 7, 2020, January 8, 2021, and April 20, 2021 (Table 1). The project biological study area consisted of the proposed project property (7.3 acres) and an offsite area directly south of the project property plus a habitat mapping buffer area of 25 feet beyond the proposed project property and offsite elements. Any portions of the study area that extended beyond the project site were visually surveyed from areas of public access.

Table 1. Summary of Survey Dates, Times, Conditions, and Staff

Survey	Date	Time	Weather Conditions [1]	Biologist
General Biological Survey	August 7, 2020	1100-1600	Weather: 0%cc-0%cc Wind: BS 0-1 Temp.: 75°F -77°F	Gina M Krantz
General Biological Survey-Southern Area	January 8, 2021	1115-1215	Weather: 0%cc-0%cc Wind: BS 0-0 Temp.: 61°F-63°F	Adam H Behle
Updated General Biological Survey/ Rare Plant Survey	April 20, 2021	1000-1215	Weather: 0%cc-0%cc Wind: BS 0-1 Temp.: 66°F-66°F	Gina M Krantz/ Kyle L Ince

[1] cc = cloud cover; BS = Beaufort Scale; F = Fahrenheit

Vegetation Mapping and Botanical/Wildlife Survey

A general biological survey of the study area that included 25 feet beyond all proposed project elements was conducted on-foot and/or visually and audibly surveyed. Existing vegetation types were delineated onto a 1" = 100' scale, color aerial photograph (Bing 2020) with topographical overlay of the project site. The vegetation types were classified according to the Holland (1986) code classification system as modified by Oberbauer et al. (2008).

A list of detectable flora and fauna species was recorded in a field notebook. Plant identifications were either resolved in the field or later determined through verification of voucher specimens, and wildlife species were determined through direct observation (aided by binoculars), identification of songs, call notes and alarm calls, or by detection of sign (e.g., burrows, tracks, scat, etc.). The scientific and common names utilized for the floral and faunal resources were noted according to the following nomenclature: flora, Rebman and Simpson (2014); Klein (2002); reptiles, Crother et al. (2003 and 2017); birds, American Ornithologists' Union (1998 and 2020), Chesser et al. (2019); and mammals, (species level) Wilson and Reeder (2005) and (sub-species level) Hall (1981).

Photographs of the project study area were taken to record the biological resources present, and data collected from the survey were digitized into current Geographical Information System (GIS) Environmental Systems Research Institute (ESRI) software platforms.

Directed Special Status Species Survey/Assessment

Concurrent with the general biological survey (i.e., vegetation mapping and general botanical/wildlife survey), a directed survey/assessment for special status species, as defined under CEQA, was conducted on the project site to assist in assessing the potential presence of special status species onsite.

For the purposes of this report, special status species are: 1) federally and state listed species (USFWS 2021; CDFW 2021a and 2020a); 2) CDFW Species of Special Concern (SSC), Fully Protected (FP), and Watch List (WL) species (CDFW 2021b and 2020b); 3) species designated as Special Plants or Special Animals in the CNDDB (CDFW 2021b and 2020b), which include all taxa inventoried by the

CDFW, regardless of their legal or protection status; and 4) City of Oceanside MHCP SAP Narrow Endemic and Covered Species. The potential for sensitive species to occur on the project site was assessed based on the presence of potentially suitable habitat and conditions, as well as historical and currently available species occurrence data for the project site and area.

Survey Limitations

Biological inventories are generally subject to various survey limitations. Depending on the season and time of day during which field surveys are conducted, some species may not be detected due to temporal species variability.

The biological surveys conducted for this project were performed during daylight hours and during the spring, summer and winter months; thus, some nocturnal wildlife species that were not detected by sign (e.g., tracks, scat) during day surveys may not have been detected.

However, based on the data/literature review performed, as well as professional knowledge of local species-specific habitat requirements, it is anticipated that any additional species potentially present on the project site can be fairly accurately assessed, and that the surveys conducted would be sufficient in obtaining a thorough review of the biological resources present on the project site for the purposes of this project CEQA impact analysis.

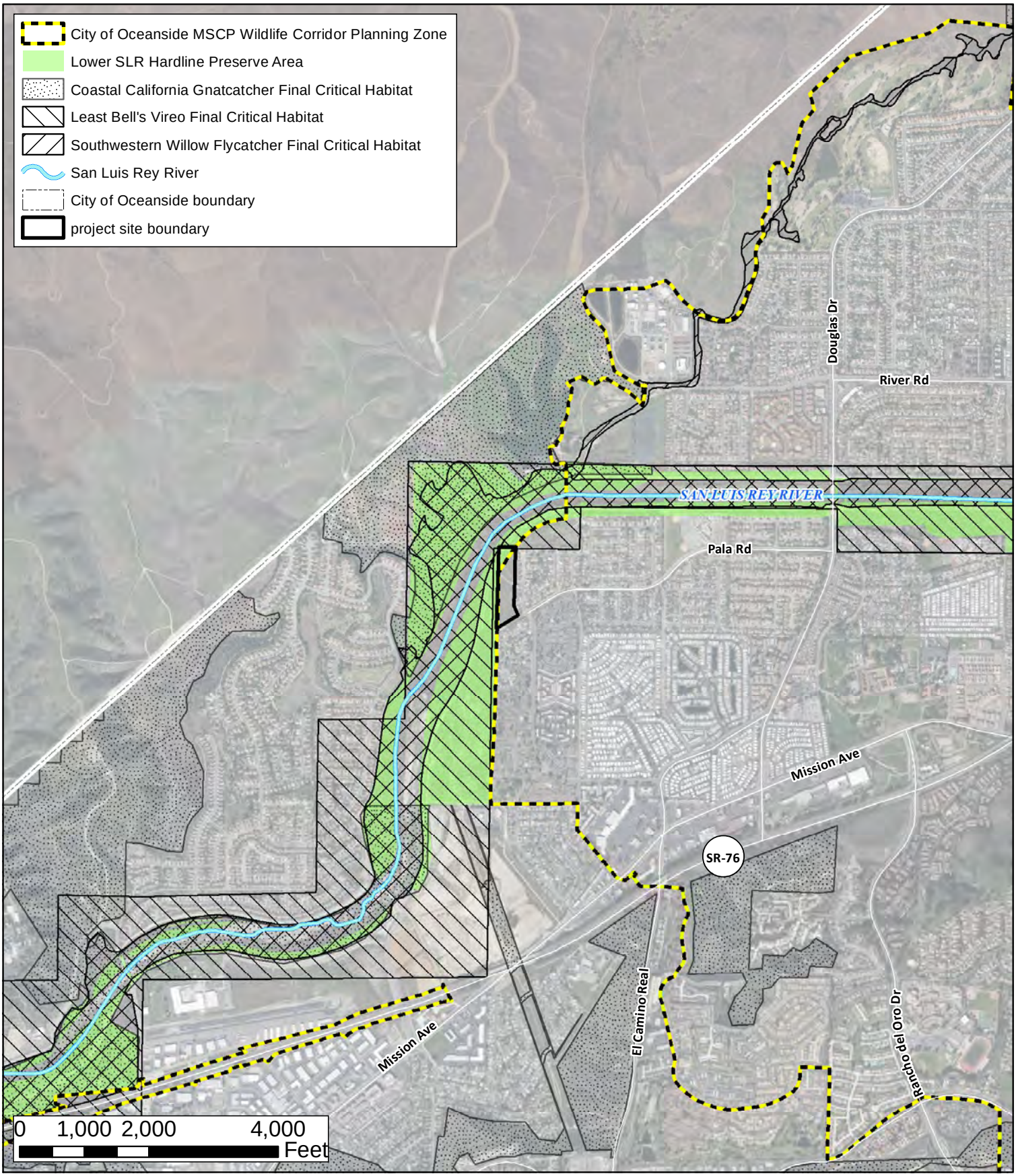
SURVEY RESULTS

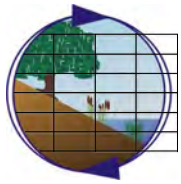
Environmental Setting

This project site is a vacant rectangular shaped lot that is bordered on the north and west by the SLR River Valley and on the south and east by existing residential developments (Figure 2). The SLR River channel is managed by the ACOE for flood control and habitat management (U.S. ACOE 2014). Based on the field survey as well as historical and more recent aerial photographs, the project site appears to have been disked regularly since at least 2003 and possibly earlier. The entire site is heavily disturbed by regular disking as well as public use by people walking through the site and domestic pet use as evident by the dog waste throughout the site. In addition, two roadway conveyance swales occur within the project site.

The project site ranges in elevations from approximately 38 to 58 feet above mean sea level (Omega Engineering 2020). Underlying geology for the study area is mapped as Pliocene to Holocene, rock type alluvium terrace (USGS 2005). Soils onsite are mapped as Tujunga sand (0-5% slope) (USDA NRCS 2007).

The City of Oceanside is located within the MHCP planning area, a subregional plan for northwestern San Diego County under the California Natural Community Conservation Planning (NCCP) Act and section 10(a) of the federal ESA (AMEC et al. 2003a and 2003b). The MHCP established guidelines designed to create, manage, and monitor an ecosystem preserve in the subregional planning area through implementation of citywide “subarea” plans to be adopted by the individual jurisdictions. These subarea plans (SAPs) will describe the specific policies each city will institute for the MHCP. In exchange for these conservation actions, the participating cities will





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Regional Setting Map

Concordia Homes - Cypress Point

Aerial Source: Bing 2020

Created on Jan. 7, 2021

Figure 2

receive "take" authorization for listed species under the federal ESA and the California Endangered Species Act (CESA), as well as covered species that are not presently listed under either Act. The City of Oceanside has a draft SAP, dated 2009 that has yet to be adopted; nonetheless it is the being implemented by the City. The proposed project site is located directly adjacent to and partially within the WCPZ and Preserve along San Luis Rey River in the northwestern corner of the project site (Figure 2).

Designated final critical habitat for three USFWS federally listed species (i.e., least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher) are located adjacent to the project along San Luis Rey River or generally in the project area (Figure 2).

Biological Resources

Botanical Resources-Flora

Four vegetation/habitat types were identified within the project biological study area that includes the project property parcel, proposed offsite project elements, and a 25-foot habitat mapping buffer: southern willow scrub, non-native grassland, disturbed habitat and urban/developed land (Table 2; Figure 3). A description of each habitat type is provided further below. In addition, a complete list of the floral species observed within the study area has been included with this report in Appendix 1. In addition, representative photographs of the project site are included in Appendix 4.

MHCP habitat groups include natural or naturalized vegetation communities in the region that provide habitat for a number of native and some sensitive species of plants and animals. These habitat groups are ranked in order of sensitivity from highest (Group A) to lowest (Group F). Group A habitats are composed of wetlands and riparian habitats being the most sensitive; Group B habitats represent rare uplands; Group C represents native coastal habitats; Group D represents chaparral habitats; Group E habitats represent annual grasslands; and Group F represents all other vegetation types, including disturbed (ruderal), agricultural, and eucalyptus habitats.

Table 2. Habitats/Vegetation Communities

Vegetation Type	Holland/ Oberbauer Code	MHCP Wetland/ Upland Habitat Group	Project Property (APN: 158-301-46-00) (acres)	Offsite Project Elements + 25-foot Habitat Mapping Buffer (acres)	Total Biological Study Area (acres)
Southern Willow Scrub	63320	Wetland, Habitat Group A	0.0	0.1*	0.1*
Non-native Grassland	42200	Upland, Habitat Group E	6.5	1.4	7.9

Vegetation Type	Holland/ Oberbauer Code	MHCP Wetland/ Upland Habitat Group	Project Property (APN: 158-301-46-00) (acres)	Offsite Project Elements + 25-foot Habitat Mapping Buffer (acres)	Total Biological Study Area (acres)
Disturbed habitat	11300	Upland, Habitat Group F	0.8	0.5	1.3
Urban/developed land	12000	Upland, Habitat Group F	0.0	1.3	1.3
		Total:	**7.3**	**3.3**	**10.6**

*Limited to the 25-foot habitat mapping buffer only; not located within the proposed offsite project element area.

Southern Willow Scrub

This wetland habitat is not located within the project site or study area but rather is limited to the 25-foot habitat mapping buffer provided for context (Figure 3). Southern willow scrub occurs throughout the SLR river within the flood berm limits as well as the expanded riparian area on the east side of the berm that is located offsite and directly southwest of the project site. This habitat in proximity to the project site is dominated by arroyo willow (*Salix lasiolepis*), mule fat (*Baccharis salicifolia*), and narrow-leaved willow (*Salix exigua*), as well as non-native species such as tamarisk (*Tamarix* sp.) and mustards (i.e., *Brassica nigra*, *Hirschfeldia incana*).

Non-native Grassland

The majority of the project site was mapped as non-native grassland (Figure 3). The entire site has been historically and recently disked, as evident by the general pattern of rows in the vegetation. This habitat was dominated by non-native grass and forb species including slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), garland (*Glebionis coronaria),* black mustard (*Brassica nigra*), and flax-leaf fleabane (*Erigeron bonariensis*), as well as weedy native species such as telegraph weed (*Heterotheca grandiflora*) and western ragweed (*Ambrosia psilostachyia*).

Disturbed Habitat

Several dirt access paths occur either across or along the property boundaries and are mapped as disturbed habitat due to the lack of vegetation (Figure 3). One linear area that bisects the site in the northern portion where a moderate sized ditch occurs is mapped as disturbed habitat since the ditch bottom is sandy with some weedy non-native vegetation cover (e.g., cut-leaf goosefoot, (*Dysphania multifida*), filaree (*Erodium* spp.), cheeseweed (*Malva parviflora*).

Biological Resources Map

Concordia Homes - Cypress Point

Aerial Source: Bing 2020

Created on June 29, 2021

Figure 3

Urban/Developed

Areas of roadways, concrete brow ditches, adjacent residential homes, and the San Luis Rey bike trail that occur within the biological study area (not necessarily within the project property parcel) are mapped as urban/developed land.

General Wildlife Species

Common urban adapted bird species such as Say's phoebe (*Sayornis saya*), house finch (*Haemorhous mexicanus)*, and Cassin's kingbird (*Tyrannus vociferans)* were observed and/or detected onsite. Many harvester ant (*Pogonomyrme* sp.) and Botta's gopher (*Thomomys bottae*) mounds occur throughout the site, as well as burrows that likely are occupied by California ground squirrel (*Spermophilus beecheyi nudipes*).

Two raptor species, American kestrel (*Falco sparverius*) and Cooper's hawk (*Accipiter cooperii*), were observed offsite either perched or flying over the general area including the surrounding residential developments. The American kestrel was observed perching on a light post located on the southern border of the study area while the Cooper's hawk was observed flying over the site near the SLR as well as perched within larger palms trees within the adjacent residential area to the south of the project site. No potential raptor nesting habitat occurs within the project site. Although no raptor foraging was observed onsite during field surveys, the onsite non-native grassland may function as potential raptor foraging habitat since it supports raptor prey such as gophers and squirrels, and likely a variety of common herpetofauna.

The only reptile species observed onsite was the side-blotched lizard (*Uta stansburiana*); however, other common reptile species, such as the western fence lizard (*Sceloporus occidentalis*) and southern alligator lizard (*Elgaria multicarinata*) may potentially be present onsite. No amphibians were observed within the project site during the field surveys; however, a few common and urban adapted amphibian species may be present in small numbers, such as the garden slender salamander (*Batrachoseps major major*). Further, the Baja California treefrog (*Pseudacris hypochondriaca)* was detected by call in the offsite adjacent riparian habitat; this species is a common amphibian that is not expected to occur onsite due to the lack of potentially suitable habitat.

The complete list of faunal species observed or detected onsite during the field surveys are included in Appendix 2. In addition, representative photographs of the project site are included in Appendix 4.

Special Status Species

Special status species are those considered sensitive by the City or any state or federal agency. For the purposes of this report, species listed as endangered or threatened under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA); species designated as California Special Concern species or Fully Protected species by the CDFW; and species listed as MHCP narrow endemics by the City of Oceanside (2009) are considered "sensitive". Species considered rare by the California Native Plant Society as California Rare Plant Rank (CRPR) species (2020) or as Special Plants or Animals in the CNDDB (2021b, 2020a, respectively), may be

considered "sensitive" if they meet the CEQA Guidelines §15380 (Title 14, Chapter 3, Article 20) definition for "endangered, rare or threatened species".

Floral Species

No special status plant species were identified on the project site during the biological surveys conducted onsite and none have at least a moderate potential to occur onsite based on a lack of potentially suitable habitat, soils, and/or other conditions; as well as the lack of known records in the project area (CNDDB 2021a, USFWS 2021a (Figure 3).

Appendix 3 provides a complete listing of the special status floral species evaluated for the potential to occur onsite, with their respective status, suitable habitat, and an assessment of their potential for presence.

Fauna Species

No special status fauna species were identified onsite based on the recent field biological surveys conducted and none have at least a moderate potential to occur onsite based on a lack of potentially suitable habitat and/or conditions and the lack of known records onsite (CNDDB 2021a, USFWS 2021a) (Figure 3). In addition, although potentially suitable habitat occurs onsite, no sign (i.e., scat, pellets, feathers) or other evidence of burrowing owl (*Athene cunicularia*) was identified within the project site during the biological surveys.

There are several special status avian species that are known to occur offsite but adjacent to the project site within the SLR River flood channel riparian habitat (Figure 3). The riparian habitat within the SLR River supports federally listed species consisting of the least Bell's vireo (vireo), southwestern willow flycatcher (flycatcher), and/or light-footed Ridgway's rail (rail) (USFWS GIS 2021a). These federally listed species only occur offsite within the adjacent riparian habitat in the SLR River channel to the west and north of the project site and are well documented within the flood control channel that is separated from the property by an elevated levee hosting a public bikeway, except in one distinct area to the southwest of the project site. Several USFWS records of the vireo occur offsite within the San Luis Rey River channel at least 100 feet from the project site and one USFWS record of the flycatcher as well as one USFWS record of rail occurs within the San Luis Rey River located at least 800 feet and 650 feet, respectively to the northeast of the proposed project site (Figure 3). In addition, the following other special status avian species were incidentally observed and/or detected offsite in the adjacent SLR River habitat during the M&A field surveys: yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), Cooper's hawk (*Accipiter cooperii*), and white-tailed kite (*Elanus leucurus*) (Figure 3).

Appendix 3 provides a complete listing of the special status fauna species evaluated for the potential to occur onsite, with their respective status, suitable habitat, and an assessment of their potential for presence.

Jurisdictional Wetlands Resources

During the general biological surveys, the project site was evaluated by qualified wetland biologists to identify potential jurisdictional wetlands and/or non-wetland resources on the project site, and their potential connection to any off-site hydrological resources within San Luis Rey River. In

addition, the overall landforms, slopes, soils, and climatic/hydrological conditions present on the project site were assessed onsite in relation to the presence of potential wetland resources. Based on the field surveys, no wetland hydrophytic vegetation or wetland hydrology were observed onsite and thus no weltand resources are expected to be located within the project site or proposed project footprint; however, jurisdictional wetland habitat mapped as southern willow scrub occurs offsite in close proximity to the existing and proposed Pala Road ditch storm water outfall in the southern portion of the study area (Figure 3). The existing storm water pipe outfall is not located within a jurisdictional wetland habitat; however, approximately 8-10 feet of the existing outlet pipe is located within a CDFW streambank that supports disturbed habitat, a jurisdictional non-wetland resource. Appendix 4 provides representative project site photos on photo pages A-4-3 through A-4-5.

Further, there are two roadside ditches within uplands onsite that drain storm water runoff from the adjacent residential roadways (i.e., Aspen Road and Pala Road) mapped as disturbed habitat based on the dominance of bare ground and/or weedy upland species (Figure 3). No wetland hydrophytic vegetation or naturally occurring hydrology was observed to be associated with these man-made ditches. Although there was evidence or observation of hydrology in a portion of the Pala Road ditch closest to Pala Road, the source of water was from the road surface either from urban runoff or as a result of a storm event and therefore would not be considered wetland hydrology. The existing manmade storm water drainage system collects overland flow from the surrounding streets which is conveyed into the ditches. The Pala Road ditch is coveyed to an undersized inlet structure and storm drain pipe that discharges through an existing undersized outlet in the southern portion. The Aspen road ditch does not have an associated storm drain pipe or outlet. Based on the lack of dominant wetland vegetation, lack of wetland hydrology and the conveyance of only overland flow, these roadside ditches are not expected to be jurisdictional wetland or non-wetland resources.

Wildlife Corridors

Wildlife corridors are important in preserving species diversity. In the absence of corridors, habitats become isolated islands surrounded by development. Fragmented habitats support lower numbers of species and increase the likelihood of extinction for species restricted to small areas. Connections between areas of open space are integral to maintaining biological diversity and population viability. For the purposes of this report, we have defined wildlife corridor as follows: a linear landscape feature utilized by resident or transient wildlife for movement between two blocks of habitat.

The proposed project site is located adjacent to the SLR River, a regional wildlife habitat corridor known to support a large population of vireo as well as other special status avian species. The adjacent SLR habitat regional corridor overalps with a portion of the gnatcatcher regional corridor within the WCPZ (a planning zone for a regional stepping stone corridor, SAP Figure 3-6) in the project area to the west (Figure 2). The SLR flood control berm and bike trail on top of the berm physically separates the proposed project site from the SLR river corridor (Figure 3). The project site is part of a narrow configuration of undeveloped lands east of the river between the SLR flood control berm and existing residential developments to the east and south. Although the project site may facilitate wildlife movement of urban adapted wildlife species due to the flat and open terrain and proximity to SLR river habitat, its proximity to existing urban development, narrow

configuration, regular human and dog use, and separation from the SLR river by the large flood control berm/bike trail limits its function and value as a part of the adjacent regional wildlife corridor.

PROJECT IMPACT ANALYSIS

CEQA Thresholds of Significance

State CEQA Guidelines §15065 (a) (Title 14, Chapter 3, Article 5) states, "A project may have a significant effect on the environment" if:

- "The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory."
- "The project has possible environmental effects which are individually limited but cumulatively considerable."

The following analysis identifies potential impacts to biological resources that could result from implementation of the proposed project, and addresses the significance of these impacts pursuant to CEQA, in accordance with the Issues listed under CEQA Guidelines Appendix G, Section IV.

CEQA Impact and Mitigation Definitions

Project impacts are categorized pursuant to CEQA as direct, indirect, or cumulative impacts.

- CEQA Guidelines §15358 (a) (1) and (b) (Title 14, Chapter 3, Article 20) defines a "direct impact or primary effect" as "effects which are caused by the project and occur at the same time and place" and relate to a "physical change" in the environment.
- CEQA Guidelines §15358 (a) (2) and (b) (Title 14, Chapter 3, Article 20) defines an "indirect impact or secondary effect" as "effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable" and relate to a "physical change" in the environment.
- CEQA Guidelines §15355 (Title 14, Chapter 3, Article 20) defines "cumulative impacts" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

Direct, indirect, and cumulative impacts can be described as either permanent or temporary. Permanent impacts are generally defined as effects that would result in an irreversible loss of biological resources; temporary impacts can be defined as effects that could be restored, thus providing habitat and wildlife functions and values effectively equal to the functions and values that existed before the area was impacted.

CEQA Guidelines §15370 (Title 14, Chapter 3, Article 20) defines "mitigation" as:

- "Avoiding the impact altogether by not taking a certain action or parts of an action."
- "Minimizing impacts by limiting the degree or magnitude of the action and its implementation."

- "Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment."
- "Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action."
- "Compensating for the impact by replacing or providing substitute resources or environments."

CEQA Project Impacts, Significance and Recommended Mitigation

Potential project impacts were evaluated based on examination of the proposed project plans (Omega Engineering Consultants, December 14, 2020) within the context of the biological resources documented during the field surveys, and those biological resources known to occur or assessed as having a likely potential to occur in the project area. Direct impacts were determined by overlaying the project plans on the mapped vegetation communities/habitats in GIS ESRI software platforms. Indirect impacts were determined based on the design, intended use, and location of the proposed project elements relative to biological resources.

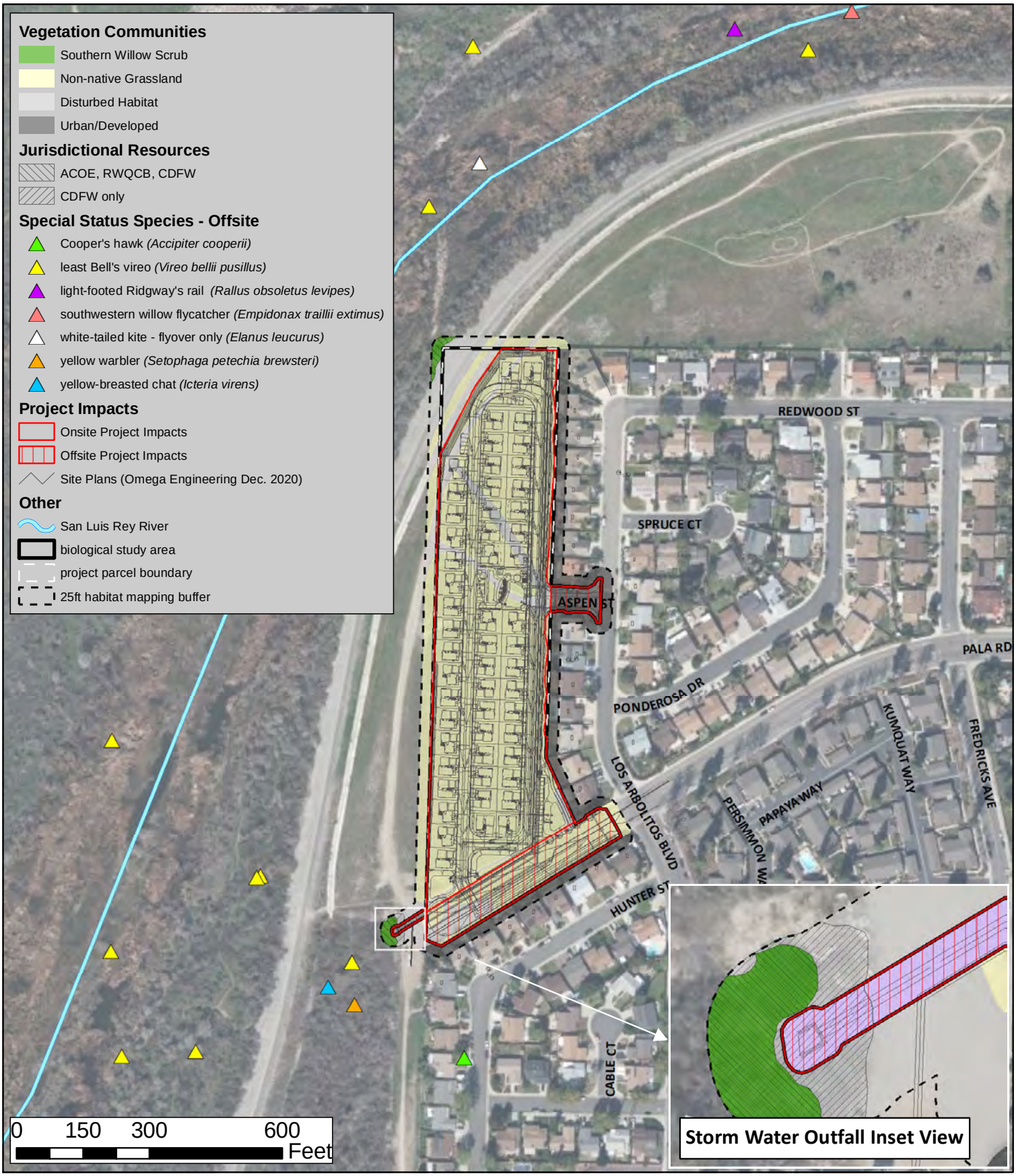
Habitats/Vegetation Communities

Direct Impacts

Implementation of the proposed project would result in 7.0 acres of direct impacts to non-native grassland (MHCP/SAP Habitat Group E) due to vegetation clearing, grubbing, and grading construction activities (Figure 4; Table 3). Although the onsite non-native grassland has limited biological function and value, it is considered to be a sensitive habitat type; therefore, project impacts to non-native grassland would be significant under CEQA and would require mitigation measures to reduce impacts to a level below significance.

Implementation of applicable mitigation measure summarized below and provided in the *Mitigation and Monitoring Requirements* section will reduce this impact to a level less than significant. The proposed project mitigation would consist of the preservation/conservation of 3.5 acres of non-native grassland (0.5:1 mitigation to impact ratio, as provided in the City SAP) within an approved mitigation site or bank located within the City of Oceanside for unavoidable project impacts to non-native grassland.

Additional impacts to disturbed habitat and urban/developed areas would not be significant under CEQA since these habitats do not support special status species onsite, and regionally, are not considered to have high conservation value requiring mitigation.



Biological Impacts Map

Concordia Homes - Cypress Point

Aerial Source: Bing 2020

Created on June 29, 2021

Figure 4

Table 3. Habitat/Vegetation Community Project Direct Impacts and Proposed Mitigation

Vegetation Type	MHCP Wetland/ Upland Habitat Group	Total Biological Study Area (acres)	Proposed Direct Permanent Impacts (acres)			City of Oceanside Mitigation Ratio	Proposed Mitigation (acres)
			Onsite Property Parcel	Offsite	Total		
Southern Willow Scrub	Wetland, Habitat Group A	0.1*	0.0	0.0	0.0	3:1	0.0
Non-native Grassland	Upland, Habitat Group E	7.9	6.3	0.7	7.0	0.5:1[1]	3.5
Disturbed Habitat	Upland, Habitat Group F	1.3	0.5	0.2	0.7	None[2]	0.0
Urban/ Developed Land	Upland, Habitat Group F	1.3	0.0	0.2	0.2	None	0.0
Total:		**10.3**	**6.8**	**1.1**	**7.9**		**3.5**

[1] Impacts within the City's WCPZ should be avoided as much as possible and minimize any unavoidable impacts. Upland habitat that is conserved and managed onsite in this zone may be used to satisfy in-kind mitigation obligations associated with impacts to upland habitats located onsite.
[2] May be subject to Habitat Development Fee.

Special Status Species

Floral-Plant Species

No special status plant species or narrow endemic species were identified onsite and none have at least a moderate potential to occur onsite based predominately on the lack of potentially suitable habitat, soil, and/or other conditions. Therefore, implementation of the project is not expected to result in impacts to any special status plant species or narrow endemic species.

Fauna-Wildlife Species

No special status wildlife species were observed and/or detected within the proposed project site and none have at least a moderate potential to occur onsite predominately based on the lack of potentially suitable habitat and/or conditions onsite. Therefore, implementation of the project is not expected to result in direct impacts to any special status wildlife species onsite.

The three federally listed species (i.e., vireo, rail, and flycatcher) as well as the other special status avian species that occur offsite within the adjacent riparian habitat in the San Luis Rey River channel are separated from the project property by an elevated levee hosting a public bikeway (Figure 3). Nonetheless, the proposed project incorporates measures to control elevated noise or fugitive dust during the vireo, rail, and flycatcher breeding season to avoid any adverse effects to breeding vireo, rail, and flycatcher within the San Luis Rey River habitat located adjacent to the project site. The

following proposed avoidance actions are consistent with the following conditions of coverage and measures for these species from the City of Oceanside MHCP Draft SAP (Appendix A; Section 5.2.8):

- Construction activities that may result in elevated noise levels and/or fugitive dust shall be avoided during the breeding season for vireo and flycatcher (March 15 to September 15; May 1 to September 15, respectively), if feasible;

- If avoidance of construction activities during the breeding season is not feasible, then construction noise levels at the riparian canopy edge shall be kept below 60 dBA Leq from 5am to 11am during the peak nesting period of March 15 to July 15 (vireo) and May 1 to September 15 (flycatcher). For the balance of the day/season, the noise levels shall not exceed 60 decibels, averaged over a 1-hour period on an A- weighted decibel (i.e., 1 hour Leq/dBA). Noise levels shall be monitored and monitoring reports shall be provided to the City of Oceanside, USFWS, and CDFW. Noise levels in excess of this threshold shall require written concurrence from the USFWS and CDFW and may require additional minimization/mitigation measures;

- If avoidance of construction activities during the breeding season is not feasible, then fugitive dust will be minimized through watering and other appropriate measures; and

- The project applicant shall retain a City-approved biologist to be present onsite during project construction within 500 feet of preserved habitats to ensure compliance with all applicable measures.

The proposed project impact footprint is in close proximity to only one area (i.e., Pala Road extension) near the SLR riparian habitat that supports least Bell's vireo and other known special status species (Figure 4). It is in this area that there is a potential to inadvertently directly impact habitat of known special species in this area. Although this potential direct impact is not expected, it may occur inadvertently during construction and would be considered potentially significant and therefore would require mitigation. Implementation of applicable mitigation measure summarized below and provided in the *Mitigation and Monitoring Requirements* section will reduce this impact to a level less than significant.

Further, implementation of the project would not result in significant impacts to designated critical habitat for vireo or any other listed species since the proposed project development footprint is located outside although in close proximity to the adjacent critical habitat (Figure 2). Critical habitat designation only affects federal actions and does not have a bearing on actions undertaken by private parties or non-federal agencies where there is no controlling federal nexus (e.g. funding, regulatory, land ownership, etc.). The proposed project does not propose any federal actions or activities such as dredge/fill that would require acquisition of a Clean Water Act, section 404 permit; thus it is not expected that critical habitat designations would be applicable to the proposed project.

Nesting Raptors and Raptor Foraging Habitat

No raptor nesting activities or potential raptor nests of any sensitive raptor species including Cooper's hawk and white-tailed kite were observed onsite. No potential nesting habitat (e.g., trees) for any raptor species including sensitive raptor species such as Cooper's hawk and white-tailed kite is located onsite and no sign (i.e., scat, pellets, feathers) or other evidence of burrowing owl occurs onsite; therefore, no raptor nesting habitat or nesting raptors would be impacted as a result of the project. Further, no indirect impacts such as construction elevated noise levels during the breeding season would affect nesting sensitive raptors since none are expected to nest onsite and the project proposes to avoid the majority of the breeding season, as described above.

Implementation of the project would result in the loss of 7 acres of non-native grassland that may function as potential raptor foraging habitat. This impact to potential raptor foraging habitat would be considered significant under CEQA and will require mitigation to reduce the impact to below a level of significance. Implementation of applicable mitigation measures summarized in the *Mitigation and Monitoring Requirements* section will reduce this impact to a level less than significant.

Jurisdictional Wetlands Resources

Implementation of the proposed project would avoid impacts to jurisdictional wetland habitat (i.e., southern willow scrub) located in close proximity to the proposed offsite stormwater outfall and dissipator in the southwestern portion of the project study area (Figure 4). The proposed project impact footprint of the storm water outfall/dissipator is in close proximity to only one small area of southern willow scrub, a jurisdictional wetland resource (Figure 4). It is in this area that there is a potential to inadvertently directly impact adjacent jurisdictional habitat. Although this potential direct impact is not expected, it may occur inadvertently during construction and would be considered potentially significant and therefore would require mitigation. Implementation of applicable mitigation measure summarized below and provided in the *Mitigation and Monitoring Requirements* section will reduce this impact to a level less than significant.

The proposed storm water outfall/dissipator would only impact jurisdictional CDFW streambank only, not ACOE and/or RWQCB jurisdictional wetland habitat. Therefore, project notification to CDFW and the potential completion of a Streambed Alteration Agreement with CDFW is required for regulatory compliance.

Wildlife Corridors and Nursery Sites

The proposed project site is located adjacent to the San Luis Rey River, a regional wildlife habitat corridor known to support a large population of vireo that is included in the City's SLR Hardline Preserve (Preserve) as well as a portion of the gnatcatcher regional corridor within the WCPZ (a planning zone for a regional stepping stone corridor, SAP Figure 3-6) that overlaps with the SLR River corridor in the project area (Figure 2).

Although the project site may facilitate wildlife movement of urban adapted wildlife species due to the flat and open terrain and proximity to SLR river habitat, its proximity to existing urban development, narrow configuration, regular human and dog use, and separation from the SLR river

by the large flood control berm/bike trail limits its function and value as a part of the adjacent regional wildlife corridor.

The project proposes to avoid the northwestern corner of the project property to accommodate the encroachment of the Preserve/WCPZ within the 100-foot riparian habitat buffer that also includes the existing flood berm/trail and brow ditch in this area. The project also proposes appropriate retaining walls and fencing along this boundary to restrict human access into the corridor and to ensure that project fuel management requirements would not directly impact the adjacent wildlife corridor. Further, several western sycamore trees would be planted along the northern and western project property boundaries to minimize potential lighting and noise impacts to the adjacent riparian corridor, and proposed lighting on homes would be directed downward and shielded to avoid light spill into the adjacent wildlife corridor.

The project site is not expected to substantially limit access to potential foraging or breeding habitat, or water sources necessary for the successful reproduction of resident wildlife species within the SLR regional corridor predominately since the project retains a setback and access to the SLR habitat corridor for wildlife through the riparian corridor, the existing flood berm/trail and lands adjacent to the berm that remain relatively open and accessible. Although the proposed project would reduce the amount of undeveloped lands adjacent to the SLR regional corridor, it is not expected to significantly impact the function and value of the adjacent SLR corridor predominately due the urban tolerant nature of the wildlife species that are expected to use the project site to access the SLR corridor and the existing urban conditions that will not substantially change after implementation of the project.

Indirect Impacts

In association with direct impacts to native vegetation communities, there are usually indirect impacts to the remaining native vegetation and wildlife communities. Many of these are related to habitat fragmentation, which occurs when a native vegetation community is not entirely altered or developed, but what remains has a diminished wildlife habitat value due to edge effects and lack of connectivity. Edge effects may include increased predation pressure, increased brood parasitism, increased competition for nesting cavities from non-native species, and increased floral competition from weedy species. Outside of those effects associated with fragmentation, indirect impacts may include elevated noise above 60 dBA Leq, increased artificial night lighting within wildlife habitat, increased human disturbance, change in duration and amount of surface water within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or alter habitat use by sensitive species.

Although there is already a substantial amount of edge effects from the surrounding existing residential developments to the adjacent Preserve (e.g., increased domestic pet predation pressure, human disturbance, elevated noise levels, increased artificial night lighting), the proposed project may exacerbate existing edge effects such as increased artificial night lighting and increased competition from weedy species. The proposed project includes the following to avoid and/or minimize these potential indirect impacts and as such is not expected to be significant under CEQA:

- Placement of 6-foot-high masonry walls at the top of slope along the project perimeter in the northwest corner to minimize potential lighting and noise impacts and avoid human access to the SLR River buffer;

- Planting, maintenance, and monitoring of several western sycamore trees along the northern and western project property boundaries (outside and setback from the existing SLR River levee and sewer mains in proximity) to minimize potential lighting and noise impacts; placement of 6-foot-high fencing along remainder of proposed project northern and western boundaries to avoid or minimize human access to the SLR River buffer;
- No streetlights are required throughout the interior project streets and therefore none are proposed (one exception along Pala Road where one streetlight is proposed for safety reasons);
- Proposed lighting on homes would be directed downward and shielded to avoid light spill into the adjacent Preserve/WCPZ. Further, proposed lighting on homes would use the lowest intensity lighting appropriate for the task and use lights with little to no blue wavelengths and warmer color temperatures (e.g., low-pressure sodium lights) where feasible.
- The project Concept Landscape Plan prepared by McCullough dated March 23, 2021 includes a proposed plant palette that does not include invasive non-native plant species on the California Exotic Pest Plant Council List of Exotic Pest Plants of Greatest Ecological Concern in California and Subarea Plan Table 5-5 that could spread into the adjacent Preserve. Due to the project size and proximity to the Preserve (within 500 feet), all proposed project landscaping consist of native plant species appropriate for the project area and consistent with Subarea Plan Table 5-4. Further, the Landscape Plan includes an irrigation plan that demonstrates how the proposed project irrigation shall be contained to the project development and shall not drain or overspray resulting in potential spread of invasive plant species, erosion, and/or non-native species such as Argentine ants.

Birds Protected under the Federal Migratory Bird Treaty Act and California Fish and Game Code

The project site has the potential to support active nests for regionally common migratory birds (no potential raptor nesting habitat onsite) that are not necessarily designated as special status species under CEQA but are protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code Sections 3503 and 3513.

Under the MBTA, it is unlawful, except as permitted by the USFWS, to "take, possess, transport, sell, purchase, barter, import, or export all species of birds protected by the MBTA, as well as their feathers, parts, nests, or eggs. Take means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect (50 CFR 10.12)." It is important to note that "take" as defined under the federal MBTA is not synonymous with "take" as defined under the federal ESA. The MBTA definition of "take" lacks a "harm and harassment" clause comparable to "take" under the ESA; thus, the MBTA authority does not extend to activities beyond the nests, eggs, feathers, or specific bird parts (i.e., activities or habitat modification in the vicinity of nesting birds that do not result in "take" as defined under the MBTA are not prohibited).

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit the "take, possession, or destruction of bird nests or eggs." Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this

code or any regulation made pursuant thereto." Section 3513 states: "It is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

The project could result in impacts to active bird nests protected under the federal MBTA and/or CDFG Code Sections 3503 and 3513 if construction-related activities were to occur during the avian breeding season. The project construction activities undertaken for the project should comply with the regulatory requirements of the federal MTBA and CDFG Codes Sections 3503 and 3513.

City of Oceanside MHCP Subarea Plan Consistency

The proposed project was assessed to ensure consistency with the City of Oceanside MHCP Draft SAP by reviewing the applicable SAP standards against the proposed project. The proposed project is located adjacent to the City's SAP Hardline Preserve and WCPZ that includes the SLR River corridor that supports a variety of native wildlife including listed bird species; the project site does not support narrow endemic species or wetlands but is located adjacent to wetland habitat. Therefore, the following SAP Standards are applicable to the project.

- *Section 5.2.4, Wetlands Mitigation Standards, Conservation and Buffer Requirements along the San Luis Rey River* states "Wherever development or other discretionary actions are proposed in or adjacent to riparian habitats along the San Luis Rey River, the riparian area and/or other wetlands and associated natural habitats shall be designated as biological open space and incorporated into the Preserve. In addition, a minimum 100-foot biological buffer shall be established for upland habitats, beginning at the outer edge of riparian vegetation. The following uses are prohibited in the 100-foot biological buffer: (1) new development, (2) new pedestrian and bike trails or passive recreational uses not already planned, and (3) fuel modification activities for new development. In the event that natural habitats do not currently (at the time of proposed action) cover the 100-foot buffer area, native habitats appropriate to the location and soils shall be restored as a condition of project approval. In most cases, coastal sage scrub vegetation shall be the preferred habitat to restore within the biological buffer."

  The proposed project would be consistent with this standard through the avoidance of a portion of the northwestern corner of the project property to include the required 100-foot riparian habitat buffer as well as the proposed encroachment and habitat enhancement of the Preserve/WCPZ , as discussed further below and shown in Figure 5.

- *Section 5.2.8, Project Implementation Guidelines*. The guidelines in this section provide minimization measures and BMPs such as the need for a construction monitoring biologist, temporary fencing of project limits, active bird nest buffers, and dust control during construction, to prevent inadvertent impacts to sensitive biological resources onsite or directly adjacent to the proposed projects.

The proposed project already incorporates measures such as the avoidance of the breeding season and the need for a qualified monitoring biologist that would monitor project construction activities including the installation of BMPs, conducting pre-construction active nest surveys and establishing appropriate nest buffers, and where applicable.

- *Section 5.3.1, WCPZ General Development Standards.* These standards state that properties within the WCPZ must be developed such that wildlife habitat value is maintained and enhanced. Connectivity of natural habitat throughout this zone must also be maintained for wildlife movement, particularly to allow continued connectivity of gnatcatcher and other bird species populations across the City. Further, the removal of native habitats shall be avoided to the maximum extent feasible, without precluding reasonable use of the property.

  The proposed project is located predominately adjacent to the WCPZ and primarily avoids the WCPZ, except in the northwestern portion of the project property where the project WCPZ encroachment is proposed. Within this area, the project would impact disturbed habitat and non-native grassland that is heavily used by humans and domestic pets and does not support any special status species. As discussed in the Wildlife corridor discussion above and the proposed WCPZ Encroachment and Enhancement discussion below, the proposed project would maintain connectivity to the adjacent SLR regional corridor/Preserve as well as the remaining WCPZ.

- *Section 7.2.1, Prohibited and Allowed Uses Within the Preserve Areas.* This section of the larger Preserve Management portion of the SAP includes a discussion regarding land uses conditionally allowed upon Wildlife Agency approval within Preserve areas, provided that they can be demonstrated to have minimal impacts on resource values within the Preserve. Specifically applicable to the project, one of the compatible allowed uses states that "Utility projects, including construction, replacement, or maintenance of electrical transmission lines, gas pipelines, water lines, sewer lines, or other linear facilities which require temporary impacts to natural habitats, provided that habitats are restored to pre-impact or better condition following the impact."

  The project proposes to remove and replace a portion of a storm water pipeline and associated outfall within a relatively small area along the eastern edge of the adjacent Preserve. This proposed temporary impact would impact disturbed habitat along a CDFW non-wetland jurisdictional streambank, be constructed by employing construction BMPs and monitored by a qualified biologist, and would be revegetated to pre-impact condition following the impact. Therefore, the project is expected to be consistent with this conditionally allowed use in the adjacent Preserve.

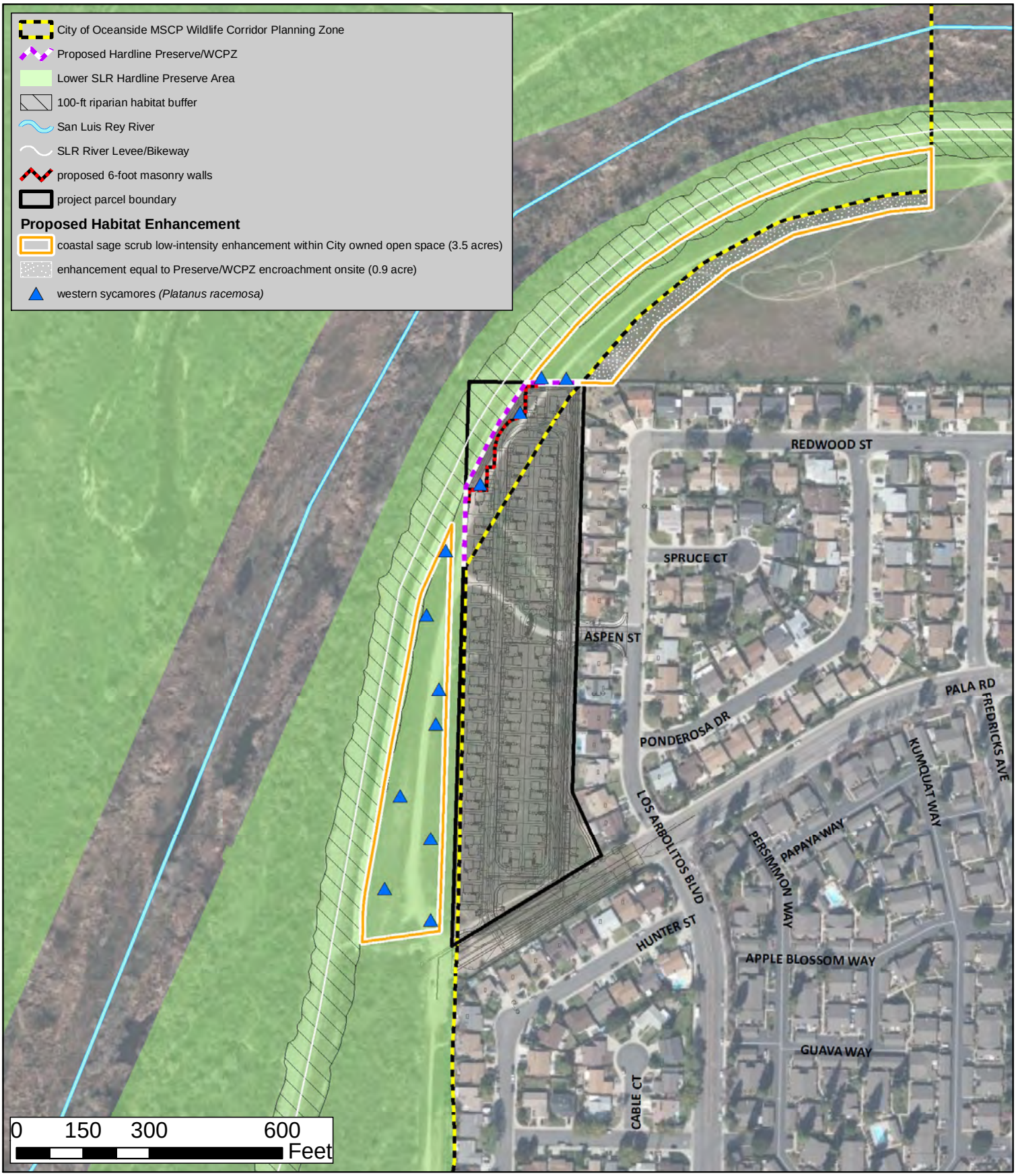
MHCP Conditions of Coverage

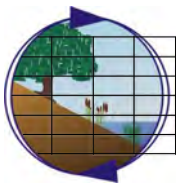
The proposed project includes proposed avoidance actions as described above for vireo, rail, and flycatcher that are consistent with the following conditions of coverage and measures from the City of Oceanside MHCP Draft Subarea Plan (Appendix A; Section 5.2.8).

Proposed Hardine Preserve and WCPZ Encroachment and Enhancement

As provided in the project description, a portion in the northwest corner of the project property has been left undeveloped as part of the City of Oceanside's Draft SAP Preserve and WCPZ. The project proposes to avoid a portion of the northwestern corner of the project property to accommodate the required 100-foot riparian habitat buffer that also includes a portion of the existing SLR flood berm/trail and adjacent brow ditch in this area (Figures 4 and 5). The project also proposes to encroach approximately 75-100 feet into the City of Oceanside's draft Hardline Preserve and WCPZ totaling 0.9 acre that consists of disturbed habitat and non-native grassland that is regularly utilized by dogs and their owners. To account for the proposed 0.9 acre of Preserve/WCPZ encroachment, the project proposes 0.9 acre coastal sage scrub low-intensity enhancement on adjacent City of Oceanside land located northeast of project site and outside but contiguous with the existing Preserve/WCPZ. The proposed CSS enhancement in the 0.9-acre area would be a part of the larger 3.5 acres of coastal sage scrub low-intensity enhancement effort that extends northeast and west of the project site within Preserve/WCPZ and the SLR River buffer and provide in more detail in Appendix 5. The proposed habitat enhancement is located on City owned land designated as open space, and predominately in the Hardline Preserve that would be protected in perpetuity. A proposed CSS low-intensity enhancement plan would be prepared by a qualified restoration biologist that is consistent with the guidelines in the *MHCP Section 6* as well as the City's *Subarea Plan Section 5.3.1 WCPZ* and *Section 7.2.3 Habitat Restoration,* or as approved by the City and Wildlife Agencies.

> The SAP Section 1.5 provides the following applicable definition, "Hard-lines. The boundary between Preserve and development established on a projectby-project basis, after evaluation of habitat and species data collected and/or surveys conducted as part of project entitlement processing, evaluation by the Wildlife Agencies, and consideration of the contribution that will result to the overall MHCP Planning effort." The project site is highly disturbed, does not support native habitats and similarly does not support sensitive species and/or SAP covered species. The proposed Preserve/WCPZ encroachment and enhancement is consistent with the goals and objectives of the SAP Preserve.





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Proposed Habitat Enhancement

Concordia Homes - Cypress Point

Aerial Source: Bing 2020

Created on July 26, 2021

Figure 5

CEQA Cumulative Impacts

The MHCP was designed to compensate for the loss of biological resources throughout the program's region; therefore, projects that conform to the MHCP as specified by the City of Oceanside SAP and implementing ordinances would not result in cumulatively considerable impacts for those biological resources adequately covered. The proposed project would result in significant impacts to 3.5 acres of non-native grassland; however, implementation of the proposed project mitigation measures would reduce impacts to below a cumulatively considerable level under CEQA.

MITIGATION REQUIREMENTS

Implementation of the following proposed project mitigation measures (MMs) would reduce biological significant impacts to a level below significance under CEQA, and ensure conformance to the draft City SAP. In addition, project compliance with the federal MBTA and California Fish and Game Code Sections 3503 and 3513 is provided below.

Significant direct impacts to sensitive upland habitat consisting of non-native grassland that supports a limited amount of potential raptor foraging habitat would be mitigated by **MM-BIO-1:**

MM-BIO-1 Prior to issuance of a grading permit, the Applicant shall submit documentation to the City demonstrating conservation of 3.5 acres of non-native grassland (0.5:1 mitigation to impact ratio, as provided in the City SAP) within an approved habitat mitigation bank located within the City of Oceanside (or comparable as approved by the City and Wildlife Agencies) for unavoidable project impacts to non-native grassland;

Avoidance of inadvertent direct impacts to sensitive habitat outside the proposed project footprint would be ensured by **MM-BIO-2** and **MM-BIO-3**:

MM-BIO-2 Prior to initiation of construction related activities including clearing and grubbing or prior to vegetation/ground disturbance or prior to site mobilization activities or issuance of a grading permit, the Applicant shall submit documentation to the City demonstrating that the Applicant has contracted with a qualified biologist(s) to monitor the project construction activities and avoid any inadvertent impacts to sensitive biological and ensure complete avoidance of adjacent jurisdictional resources. Each qualified biologist shall have demonstrated expertise with the sensitive habitats, special status species of the project region. The qualified biologist(s) shall monitor the installation of the construction temporary fencing and/or flagging, silt fencing, and other best management practices (BMPs) along the construction limits prior to construction activities. The qualified biologist shall be present during the initial vegetation clearing and grubbing activities, and potentially on a less frequent basis during grading activities to ensure construction remains within the approved project development area. The Applicant shall report results of biological monitoring activities to the City on a regular basis through the preparation and submission of summary monitoring reports.

MM-BIO-3 Prior to initiating any construction related activities requiring a clearing and grubbing or grading permit, the Applicant shall demonstrate how the project would avoid or minimize applicable inadvertent impacts during construction. To ensure the avoidance and minimization of impacts to biological resources during construction, typical construction BMPs shall be implemented including but not limited to the following: Prior to ground disturbance, all permanent and temporary disturbance areas shall be clearly delineated by orange construction fencing and the identification of environmentally sensitive areas with flagging and/or fencing.

Project Compliance with the Federal MBTA and CDFG Code Sections 3503 and 3513

The proposed project would avoid any direct impacts to migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3503 and 3513, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the breeding season for these species. The breeding season is defined as January 15–August 31 for raptor species and February 15–August 15 for other non-raptor birds (excluding listed species). If removal of habitat on the proposed area of disturbance must occur during the breeding season, then prior to initiating any construction related activities requiring a clearing and grubbing or grading permit, the Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, and the results must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

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APPENDICES

APPENDIX 1. FLORAL SPECIES OBSERVED ON-SITE

Habitat Types:

S = Southern Willow Scrub#
N = Non-native Grassland
D = Disturbed Habitat
U = Urban/Developed

* = Denotes non-native flora species.
\# = Denotes species identified in offsite southern willow scrub that is located only in the 25-foot habitat mapping buffer and not onsite

Scientific Name	Common Name	Habitat
DICOTYLEDONS		
Aizoaceae – Fig-Marigold Family		
**Carpobrotus edulis* (L.) N. E. Br.	Freeway iceplant	N, D
Amaranthaceae – Amaranth Family		
**Amaranthus albus* L.	tumbleweed	N, D
Asteraceae – Sunflower Family		
Ambrosia acanthicarpa Hook.	annual bur-sage	N
Ambrosia psilostachya DC.	western ragweed	N
**Anthemis cotula* L.	mayweed	N
Baccharis pilularis DC.	coyote brush	S
#*Baccharis salicifolia* (Ruiz & Pav.) Pers. subsp. *salicifolia*.	mule fat	S
** Centaurea benedicta* (L.) L.	blessed thistle	N
**#Erigeron bonariensis* L.	flax-leaf fleabane	N
** Glebionis coronaria* (L.) Spach	garland, crown daisy	N
** Hedypnois rhagadioloides* (L.) F. W. Schmidt	Crete weed	N
Heterotheca grandiflora Nutt.	telegraph weed	N
**Hypochaeris glabra* L.	smooth cat's-ear	N
Isocoma menziesii (Hook. & Arn.) G. L. Nesom var. *vernonioides* (Nutt.) G. L. Nesom	Menzies's goldenbush	N
Matricaria discoidea (DC.)	pineapple weed	N
Pseudognaphalium beneolens (Davidson) Anderb.	fragrant pearly everlasting	N
Pseudognaphalium californicum (DC.) Anderb.	California everlasting	N
**Senecio vulgaris* L.	common groundsel	N
**Sonchus asper* (L.) Hill ssp. *asper*	prickly sow thistle	N
Stephanomeria diegensis Gottlieb	San Diego wire-lettuce	N
Boraginaceae – Borage Family		
Amsinckia intermedia Fisch. & C. A. Mey.	common fiddleneck	N
Heliotropium curassavicum L. var. *oculatum*	seaside or alkali heliotrope	N
Plagiobothrys collinus (Phil.) I.M. Johnst. var. *californicus* (A. Gray) Higgins	California popcornflower	N
Brassicaceae – Mustard Family		
**Brassica rapa* L.	turnip, field mustard	N
**Hirschfeldia incana* (L.) Lagr.-Fossat	summer field mustard	N
**Lepidium didimum* L.	lesser swine cress	N
**Lobularia maritima* (L.) Desv.	common sweet alyssum	N
**Raphanus sativus* L.	radish	N
**Sisymbrium irio* L.	London rocket	N
Cactaceae – Cactus Family		
**Opuntia ficus-indica* (L.) Mill.	mission prickly-pear	N

Scientific Name	Common Name	Habitat
Caryophyllaceae – Pink Family		
**Polycarpon tetraphyllum* (L.) L. ssp. *tetraphyllum*	four-leaved allseed	N
**Silene gallica* L.	small-flower catchfly	N
**Spergularia bocconii* (Scheele) Merino	Boccone's sand-spurry	N, D
Chenopodiaceae – Goosefoot Family		
**Chenopodium album* L.	lamb's quarters	N
**Chenopodium murale* L.	nettle-leaf goosefoot	N, D
**Salsola tragus* L.	Russian thistle, tumbleweed	N
Cucurbitaceae – Gourd Family		
Cucurbita foetidissima Kunth	buffalo gourd, calabazilla	N
Euphorbiaceae – Spurge Family		
**Euphorbia maculata* L.	spotted spurge	N
*#*Ricinus communis* L.	castor bean	N
Fabaceae – Pea Family		
Acmispon heermannii (Durand & Hilg.) Brouillet var. *heermannii*	Heermann's lotus	N
Lupinus bicolor Lindl.	miniature lupine	N
**Medicago polymorpha* L.	California burclover	N
**Melilotus indicus* (L.) All.	sourclover	N
Fagaceae – Oak Family		
Quercus agrifolia Née var. *agrifolia*	California or coast live oak	N
Geraniaceae – Geranium Family		
**Erodium cicutarium* (L.) L'Hér. ex Aiton	red-stem filaree	N, D
**Erodium moschatum* (L.) L'Hér. ex Aiton	green-stem filaree	N, D
Lamiaceae – Mint Family		
**Marrubium vulgare* L.	horehound	N
Malvaceae – Mallow Family		
**Malva parviflora* L.	cheeseweed, little mallow	N, D
Meliaceae – Mahogany Family		
**Melia azedarach* L.	China berry, Persian lilac	N
Myrsinaceae – Myrsine Family		
* *Lysimachia arvensis* (L.) U. Manns & Anderb.	scarlet pimpernel	N

Scientific Name	Common Name	Habitat
Onagraceae – Evening-Primrose Family		
Camissonia strigulosa (Fisch. & C. A. Mey.) P. H. Raven	strigose or sandysoil sun cup	N
Camissoniopsis intermedia (P.H. Raven) W.L. Wagner & Hoch	intermediate sun cup	N
**Oenothera laciniata* Hill	cutleaf evening primrose	N
Plantaginaceae – Plantain Family		
Nuttallanthus texanus (Scheele) D. A. Sutton	blue toadflax	N
**Plantago lanceolata* L.	English plantain	N
Polygonaceae - Buckwheat Family		
**Polygonum aviculare* L. ssp. *depressum* (Meisn.) Arcang.	prostrate knotweed	N
Portulacaceae – Purslane Family		
**Portulaca oleracea* L.	purslane	N
Salicaceae – Willow Family		
#Salix exigua Nutt.	narrow-leaved willow	S
#Salix lasiolepis Benth.	arroyo willow	S
Solanaceae – Nightshade Family		
Datura wrightii Regel	western jimsonweed	N
Tamaricaceae – Tamarisk Family		
**#Tamarix* sp.	tamarisk	S
Urticaceae – Nettle Family		
**Urtica urens* L.	dwarf nettle	N
Zygophyllaceae – Caltrop Family		
**Tribulus terrestris* L.	puncture vine	N
MONOCOTYLEDONS		
Poaceae – Grass Family		
*#*Arundo donax* L.	giant reed	S
**Avena barbata* Link	slender wild oat	N
**Bromus diandrus* Roth	ripgut grass	N
**Bromus madritensis* L. ssp. *rubens* (L.) Husnot	red brome, foxtail chess	N
**Cynodon dactylon* (L.)Pers.	Bermuda grass	N
Distichlis spicata (L.) Greene	saltgrass	N
**Festuca myuros*	rattail sixweeks grass	N
**Hordeum murinum* L. ssp. *leporinum* (Link) Arcang.	hare barley	N

APPENDIX 2. FAUNAL SPECIES OBSERVED OR DETECTED ON-SITE[1]

Habitat Types:

G = Non-native Grassland
D = Disturbed Habitat
FO = Fly Over
S = Southern Willow Scrub-Offsite

* = Denotes introduced species
# = Denotes species identified offsite only; not onsite

Abundance Codes (birds only):

A = Abundant: Almost always encountered in moderate to large numbers in suitable habitat and the indicated season.

C = Common: Usually encountered in proper habitat at the given season.

U = Uncommon: Infrequently detected in suitable habitat. May occur in small numbers or only locally in the given season.

R = Rare: Applies to species that are found in very low numbers.

"Numbers" indicate the number of individuals observed during the field survey work.

Status Codes (birds only):

M = Migrant: Uses the site for brief periods of time, primarily during the spring and fall months.

R = Year-round resident: Probable breeder on-site or in the vicinity.

S = Spring/summer resident: Probable breeder on-site or in the vicinity unless combined with transient status.

T = Transient: Uses site irregularly in summer but unlikely to breed. Not a true migrant and actual status often poorly known.

W = Winter visitor: Does not breed locally.

V = Casual vagrant: Not expected; out of normal geographic or seasonal range and by definition rare.

Common Name	Scientific Name	Habitat	Abundance	Status
BUTTERFLIES				
Pieridae (Whites and Sulfurs)				
checkered (common) white	*Pontia protodice*	G		
Lycaenidae (Gossamer-wing Butterflies)				
acmon blue	*Icaricia acmon acmon*	G		
Nymphalidae (Brushfoots)				
common buckeye	*Junonia coenia grisea*	G		
Hesperiidae (Skippers)				
fiery skipper	*Hylephila phyleus muertovalle*	G		
AMPHIBIANS				
Hylidae (Treefrogs and Relatives)				
# Baja California treefrog	*Pseudacris hypochondriaca*			
REPTILES				
Phrynosomatidae				
side-blotched lizard	*Uta stansburiana*	G		
BIRDS				
Accipitridae (Hawks and Harriers)				
#white-tailed kite	*Elanus leucurus*	FO	C	R
#Cooper's hawk	*Accipiter cooperii*	FO	C	M, R
red-shouldered hawk	*Buteo lineatus*	FO	C	R
red-tailed hawk	*Buteo jamaicensis*	FO	C	R, M, W
Columbidae (Pigeons and Doves)				
mourning dove	*Zenaida macroura*	FO	C	R
Trochilidae (Hummingbirds)				
Anna's hummingbird	*Calypte anna*	G	C	R
Falconidae (Caracaras and Falcons)				
#American kestrel	*Falco sparverius*	FO	C	R

Common Name	Scientific Name	Habitat	Abundance	Status
Tyrannidae (Tyrant Flycatchers)				
black phoebe	*Sayornis nigricans*	G,D	C	R
Say's phoebe	*Sayornis saya*	G,D	C	W
Cassin's kingbird	*Tyrannus vociferans*	FO	C	R, M
Vireonidae (Typical Vireos)				
#least Bell's vireo	*Vireo bellii pusillus*	S	U	M, S
Corvidae (Jays, Magpies, and Crows)				
common raven	*Corvus corax*	FO	C	R
Hirundinidae (Swallows)				
barn swallow	*Hirundo rustica*	FO	U	M, W, S
lesser goldfinch	*Spinus psaltria*	G	C	M, R
Parulidae (Warblers)				
#yellow warbler	*Dendroica petechia*	S	C	M, S
Passerellidae (New World Buntings and Sparrows)				
song sparrow	*Melospiza melodia*	G	A	R
Icteriidae (Yellow-Breasted Chat)				
#yellow-breasted chat	*Icteria virens*	S	C	M, S
Fringillidae (Finches)				
house finch	*Haemorhous mexicanus*	G	A	R
MAMMALS				
Sciuridae (Squirrels)				
California ground squirrel	*Spermophilus beecheyi nudipes*	G,D		
Geomyidae (Pocket Gophers)				
Valley or Botta's pocket gopher	*Thomomys bottae*	G		
Canidae (Coyotes, Dogs, Foxes, Jackals, and Wolves)				
*feral/domestic dog	*Canis familiaris*[1]	G,D		

[1]Nomenclature from:
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Common Name	Scientific Name	Habitat	Abundance	Status

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APPENDIX 3. OCCURRENCE OR POTENTIAL OF SPECIAL STATUS SPECIES ON THE PROJECT SITE

Key to abbreviations:

Federal Endangered Species Act (ESA)
FE = Federally-listed as Endangered
FT = Federally-listed as Threatened
FPE = Federally proposed for listing as Endangered
FPT = Federally proposed for listing as Threatened
FPD = Federally proposed for delisting
FC = Federal candidate species
SC = Species of concern
Delisted species are monitored for 5 years
BCC = Birds of Conservation Concern

California Endangered Species Act (CESA)
SE = State-listed as Endangered
ST = State-listed as Threatened
SCE = State candidate for listing as Endangered
SCT = State candidate for listing as Threatened
SCD = State candidate for de-listing
SR = California Rare Species

California Natural Diversity Database (CNDDB)
SP = Special Plant
SA = Special Animal

California Department of Fish and Wildlife (DFW)
SSC = Species of Special Concern
FP = California fully protected species
WL = Watch List

Bureau of Land Management (BLM)
S = Sensitive

U.S. Forest Service (USFS)
S = Sensitive

California Rare Plant Rank (CRPR)
List 1A = Plants presumed extinct in California
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 = Plants about which more information is needed (a review list)
List 4 = Plants of limited distribution (a watch list); Threat level:
0.1-Seriously threatened in California (high degree/immediacy of threat)
0.2-Fairly threatened in California (moderate degree/immediacy of threat)
0.3-Not very threatened in California (low degree/immediacy of threats/ no current threats known)

Multiple Species/Habitat Conservation Program (MSCP)/(MHCP)
NE = Narrow Endemic Species
CS = Covered Species

Vernal Pool Habitat Conservation Plan (VPHCP)
VP = Vernal Pool Species

County of San Diego
Plant List A = Plants rare, threatened or endangered in California and elsewhere
Plant List B = Plants rare, threatened or endangered in California but more common elsewhere
Plant List C = Plants which may be quite rare, but need more information to determine their true rarity
Plant List D = Plants of limited distribution and are uncommon, but not presently rare or endangered
Animal Group 1 = Animals rare, threatened or endangered in California and elsewhere
Animal Group 2 = Animals rare, threatened or endangered in California but more common elsewhere

U.S. Fish and Wildlife Service (USFWS)
BCC = Birds of Conservation Concern

Scientific Name **Common Name**	**Sensitivity Codes and Status**[1, 2]	**Habitat Preferences/Requirements**[3]	**Verified On-Site**	**Potential To Occur On-Site**	**Factual Basis forDetermination of Occurrence Potential**
PLANTS					
Acanthomintha ilicifolia San Diego thornmint	ESA: FT CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE, CS Cnty of SD List: A MHCP: NE, CS	Native, annual herb that has a distinctive microhabitat, preferring grassy openings in chaparral or sage scrub on gabbroic substrate with friable or broken clay soils, including vernal pools; ranges in elevation from 10-960 meters (33-3,150 ft); blooming period April-June.	No	Not Expected	Soils are mapped as Tujunga sand. No clay soils are mapped for the site.
Acmispon prostratus (*=Lotus nuttallianus)* Nuttall's lotus	CNDDB: SP CRPR 1B.1 MSCP: CS MHCP: NE, CS Cnty of SD List: A	Annual herb found on coastal dunes and sandy coastal sage scrub; elevation 0-10 meters (0-33 ft.); blooming period March-June.	No	Not Expected	Nearly all populations of this annual plant occur on the immediate coast, west of the site. A population is known from near the mouth of San Luis Rey River, approximately 3.6 miles downstream of the site. The survey was conducted during the blooming period for this annual species and no plants were observed on-site.
Adolphia californica California adolphia	CRPR 2B.1 CNDDB: SP Cnty of SD List: B	Native, short and spiny, deciduous shrub that is often intermixed with sage scrub, but occasionally occurs in peripheral chaparral habitats, particularly hillsides near creeks; usually associated with xeric locales where shrub canopy reaches 4-5' in height, often with San Miguel and Friant soils; blooming period December-May.	No	Not Expected	No coastal sage scrub or chaparral habitat occurs on-site.

Ambrosia pumila San Diego ambrosia	ESA: FE CNDDB: SP CRPR 1B.1 MSCP: NE, CS Cnty of SD List: A MHCP: NE, CS	Native, perennial, rhizomatous herb that prefers creek beds, seasonally dry drainages, and floodplains; usually a protective tree canopy is absent and it grows on the periphery of willow woodland; ranges in elevation from 20-450 m (66-1,476 ft.); blooming period April-October.	No	Low	This perennial herb was sought but not found. An historic (1936) population is known from approximately 1.9 miles upstream of the site within the San Luis Rey River (SLR). More recent (2016) records of this plant that occur near the SLR are from Bonsall just north of SR 76, near it's intersection with Olive Hill Road, approximately 8 miles east of the site.
Aphanisma blitoides aphanisma	CNDDB: SP CRPR 1B.2 MSCP: NE (City of SD only), CS Cnty of SD List: A	Annual herb found in sandy soils of coastal bluff scrub, coastal dunes, and coastal scrub; elevation 1-305 meters (3-1,000 ft.); blooming period March-June.	No	Not Expected	This annual herb is typically found on beach bluffs west of the site. No habitat for this species occurs on-site.
Arctostaphylos glandulosa ssp. *crassifolia* Del Mar manzanita	ESA: FE CRPR 1B.1 CNDDB: SP MSCP: CS MHCP: NE, CS Cnty of SD List: A	Native, evergreen shrub that typically occurs in relatively open, coastal chaparral on eroding sandstone substrate where the chaparral is relatively low growing; at occasional inland sites it grows in denser mixed chaparral vegetation; blooming period December-April.	No	Not Expected	No chaparral habitat occurs on-site for this evergreen shrub.
Baccharis vanessae Encinitas baccharis	ESA: FT CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE, CS MHCP: NE, CS Cnty of SD List: A	Native, deciduous shrub that prefers mature but relatively low-growing chaparral; at inland locales may be associated with large granitic boulders; blooming period August-November.	No	Not Expected	No chaparral habitat for this shrub occurs on-site.
Bloomeria (=Muilla) clevelandii	CRPR 1B.1	Native, perennial,	No	Not Expected	Soils are mapped as Tujunga

San Diego goldenstar	CNDDB: SP MSCP: CS MHCP: NE Cnty of SD List: A BLM : S	corm/bulbiferous herb that prefers valley grasslands, particularly near mima mound topography or in the vicinity of vernal pools, in clay soils with good shrink/swell potential; does not typically grow in the shade of woody perennials, but rather in somewhat open locales; blooming period April-May.			sand. No clay soils for this corm sprouting herb occur on-site.
Brodiaea filifolia thread-leaved brodiaea	ESA: FT CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE, CS Cnty of SD List: A	Perennial bulbiferous herb that prefers vernally moist grasslands and the periphery of vernal pools. Typically found in clay soils; other plant associates *Sisyrinchium bellum* and *Nassella pulchra*; elevation 25-1,220 meters (82-4,000 ft.); blooming period March-June.	No	Not Expected	Soils are mapped as Tujunga sand. No clay soils occur on-site. for this corm sprouting herb.
Brodiaea orcuttii Orcutt's brodiaea	CNDDB: SP CRPR 1B.1 MSCP: NE (City of CV only), CS Cnty of SD List: A USFS: S BLM: S	Native, perennial, bulbiferous/corm sprouting herb that prefers vernally moist grasslands, mima mound topography, and the periphery of vernal pools, but will occasionally grow on streamside embankments, and has also been found in mesic grasslands and openings within chaparral, at elevations ranging from 30-1,692 meters (98-5,551 ft.); blooming period May-July.	No	Low	This species was sought when its distinctive leaves would have been present; however, no plants were observed.
Ceanothus verrucosus wart-stemmed ceanothus	CNDDB: SP CRPR 2B.2 MSCP: CS MHCP: CS Cnty of SD List: B	Native, evergreen, sizable shrub that prefers coastal chaparral intermixed with chamise and mission manzanita; typically, is a dominant shrub within the	No	Not Expected	No chaparral habitat is present on-site for this evergreen shrub.

		vegetation community where it occurs; it may be particularly vigorous on north-facing slopes, but can accommodate more xeric aspects; blooming period December-May.			
Chorizanthe orcuttiana Orcutt's spineflower	ESA: FE CESA: SE CNDDB: SP CRPR 1B.1 MHCP: NE, CS Cnty of SD List: A	Native, annual herb that prefers openings with a distinctive loose sandy substrate; blooming period March-May.	No	Not Expected	The nearest known population of this rare annual plant is from Oak Crest Park in Encinitas. It is typically found in sandy openings between chaparral shrubs. No chaparral habitat occurs on-site.
Comarostaphylis diversifolia ssp. *diversifolia* summer holly	CNDDB: SP CRPR 1B.2 MHCP: CS Cnty of SD List: A BLM: S	Native, evergreen shrub that prefers mesic north-facing slopes in heavy chaparral; rugged steep drainages seem to be a preferred location for isolated shrubs; blooming period April-June.	No	Not Expected	No chaparral habitat is present on the site to support this evergreen shrub.
Corethrogyne filaginifolia var. filaginifolia (=var. *incana;* var. *linifolia*) California sand aster	CNDDB: SP CRPR: 1B.1 MSCP: CS MHCP: NE, CS Cnty of SD List: A	Perennial herb found in chaparral, coastal bluff scrub, coastal mixed chaparral and coastal scrub habitat; elevation 3-115 meters 10-344 ft.); blooming period May-September.	NO	Not Expected	The site is north of the known range for both sensitive varieties of this species.
Dichondra occidentalis western dichondra	CNDDB: SP CRPR 4.2 CNDDB: SP Cnty of SD List: D	Native, small, cryptic perennial, rhizomatous herb that occurs in southern mixed chaparral, chamise chaparral, sage scrub, rocky outcrops in grasslands, and especially in recently exposed areas of post-burn habitat; often grows almost completely hidden at the base of leafy shrubs; ranges in	No	Not Expected	Chaparral and sage scrub habitats that support this species are not found on-site.

		elevation from 50-500 meters (164-1,641 ft); blooming period (January) March-July.			
Dudleya blochmaniae ssp. *blochmaniae* Blochman's dudleya	CNDDB: SP CRPR 1B.1 Cnty of SD List: A	Perennial herb found in serpentine outcroppings of coastal bluff scrub, sandy openings in Diegan sage scrub and chaparral, valley and foothill grassland; elevation 5-540 meters (16-1,772 ft.); blooming period April-June.	No	Low	A population of Blochman's dudleya is known from approximately 2.1 miles northwest of the site on Camp Pendleton. Native habitat typical of this species does not occur on-site
Dudleya brevifolia (=*blochmaniae* ssp *brevifolia*) short-leaf dudleya	CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE, CS MHCP: NE Cnty of SD List: A	Native, cryptic, perennial herb that prefers open areas of chamise chaparral or Torrey Pine forest on Torrey sandstone with soils mapped as Carlsbad gravelly sandy loam; blooming period in April.	No	Not Expected	The northern-most documented populations of this rare perennial herb is from just east of Del Mar in Crest Canyon Park. This record is from 1958. All other populations are known from further south of the site (i.e., La Jolla, Carmel Valley).
Dudleya variegata variegated dudleya	CNDDB: SP CRPR 1B.2 MSCP: NE, CS MHCP: NE Cnty of SD List: A BLM: S	Native, small, corm-like sprouting, succulent, perennial herb that occurs in openings in sage scrub and chaparral, isolated rocky substrates in open grasslands, as well as in vernal pools and mima mound topography; usually grows in small areas devoid of shrub cover, even though chamise, scrub oak, or sage scrub elements may occur nearby; blooming period May-June.	No	Low	The northern-most documented population of this species occurs approximately 3.7 miles southeast of the site in the Mira Costa community. No native habitat occurs on the site to support this plant.
Dudleya viscida sticky dudleya	CNDDB: SP CRPR 1B.2 MSCP: CS Cnty of SD List: A USFS: S	Native, conspicuous, succulent perennial herb that grows predominantly on very steep north-facing slopes; amenable to shade and mesic conditions;	No	Not Expected	No native habitat or metavolcanic derived soils occur on the site for this species.

	BLM: S	typically situated on exposed gabbroic rock, growing on very shallow soils or from cracks on vertical rock slabs; ranges in elevation from 10-550 m (33-1,805 ft.); blooming period May-June.			
Ericameria palmeri var. *palmeri* Palmer's goldenbush	CNDDB: SP CRPR 1B.1 MSCP: NE, CS Cnty of SD List: B	Native, evergreen, shrub that strongly prefers seasonally wet/moist locales, along coastal drainages, in mesic chaparral sites or rarely in sage scrub, and occasionally occurs as a hillside element (usually at higher elevations, inland on north-facing slopes); ranges in elevation from 30-600 meters (98-1,969 ft.); blooming period (July) September-November.	No	Not Expected	No native habitat occurs on-site for this evergreen shrub.
Eryngium aristulatum var. *parishii* San Diego button celery	ESA: FE CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE (City of SD only), CS MHCP: NE VPHCP: VP Cnty of SD List: A	Annual/perennial herb found in vernal pools or vernally moist coastal scrub, valley and foothill grassland adjacent to vernal pols; elevation 20-620 meters (65-2,035 ft.); blooming period April-June.	No	Not Expected	No vernal pools or vernally moist habitat occurs on the site.
Euphorbia misera cliff spurge	CNDDB: SP CRPR 2B.2 MHCP: CS Cnty of SD List: B	Perennial shrub found in rocky areas of coastal bluff scrub, coastal scrub, and Mojavean desert scrub; elevation 10-500 meters (33-1,640 ft.); blooming period December-August.	No	Not Expected	No native habitat occurs on-site for this perennial shrub.
Ferocactus viridescens coast barrel cactus	CNDDB: SP CRPR: 2B.1 MSCP: CS MHCP: CS	Native succulent; optimal habitat for this cactus appears to be sage scrub hillsides; often at the crest of slopes and	No	No Expected	No native habitat occurs on-site for this cactus species.

	Cnty of SD List: B	growing among cobbles; occasionally is found on the periphery of vernal pools and mima mound topography; blooming period May-June.			
Harpagonella palmeri Palmer's grappling hook	CNDDB: SP CRPR 4.2 Cnty of SD List: D	Native, inconspicuous annual, herb that typically occurs on clay vertisols with open grassy slopes in open sage scrub or chaparral, at elevations ranging from 20-955 meters (65-3,133 ft.); blooming period March-May.	No	Low	No clay soils occur on the site for this annual species. In addition, surveys conducted during its blooming period did not reveal its presence.
Hazardia orcuttii Orcutt's hazardia	CESA: ST CNDDB: SP CRPR 1B.1 MHCP: NE, CS Cnty of SD List: A	Perennial evergreen shrub often found in clay soils of maritime chaparral and coastal sage scrub habitat; elevation 85-85 meters (262-280 ft.); blooming period August-October.	No	Not Expected	The northern-most documented population of this species occurs approximately 3.7 miles southeast of the site in the Mira Costa community. No native habitat or clay soils occur on the site to support this perennial shrub.
Iva hayesiana San Diego marsh elder	CNDDB: SP CRPR 2B.2 MHCP: CS Cnty of SD List: B	Perennial shrub that prefers creeks or intermittent streambeds, marshes, swamps, and playas; elevation 10-500 meters (33-1,640 ft.); blooming period April-October.	No	Low	The nearest documented population of this perennial shrub occurs approximately 3.7 miles southeast of the site in the Mira Costa community. Populations may occur within the San Luis Rey River in habitat not found on-site.
Juncus acutus ssp. *leopoldii* spiny rush/ southwestern spiny rush	CNDDB: SP CRPR 4.2 Cnty of SD List: D	Perennial rhizomatous herb found in coastal salt marsh at brackish locales, alkaline meadows and seeps, and riparian marshes; elevation 3-900 meters (10-2,950 ft.);	No	Low	Populations of this perennial herb likely occur in the adjacent San Luis Rey River in wetland habitat not-found on-site.

		blooming period May-June.			
Lepechinia cardiophylla heart-leaved pitcher sage	CNDDB: SP CRPR 1B.2 MSCP: NE (Cnty of SD only), CS Cnty of SD List: A	Perennial shrub found in closed-cone coniferous forest, chaparral, and cismontane woodland; elevation 555-1,370 meters (1,820-4,500 ft.); blooming period April-July.	No	Not Expected	Native habitat for this species does not occur on-site. The nearest documented San Diego County populations are recorded from well south and east of the site near Iron Mountain.
Monardella hypoleuca ssp. *lanata* felt-leaved monardella	CNDDB: SP CRPR 1B.2 MSCP: NE, CS Cnty of SD List: A USFS: S BLM: S	Native, rhizomatous herb that typically occurs on gabbro soils in the understory of chaparral, beneath mature stands of chamise in xeric situations, and cismontane woodland, at elevations ranging from 300-1,575 meters (984-5,167 ft.); blooming period June-August.	No	Not Expected	No native habitat or gabbro derived soils occur on the site to support this species.
Myosurus minimus ssp. *apus* little mouse-tail	CNDDB: SP CRPR 3.1 MHCP: NE, CS Cnty of SD List: C	Native, cryptic, annual herb that occurs in vernal pools; typically grows in the deeper portions of vernal pool basins, sprouting immediately after the surface water has evaporated; blooming period March-June.	No	Not Expected	No vernal pool habitat occurs on-site.
Navarretia fossalis spreading prostrate navarretia/ Moran's navarretia/ spreading navarretia	ESA: FT CNDDB: SP CRPR 1B.1 MSCP: NE (City of SD Only), CS MHCP: NE, CS VPHCP: VP Cnty of SD List: A	Native, small, annual herb that prefers vernal pools and swales, and occurs in chenopod scrub, marshes, swamps, and playas; blooming period April-June.	No	Not Expected	No suitable habitat (i.e., vernal pool) occurs on-site.
Orcuttia californica California Orcutt grass	ESA: FE CESA: SE CNDDB: SP CRPR 1B.1 MSCP: NE, CS MHCP: NE, CS	Annual herb found in vernal pools; elevation 15-660 meters (49-2,165 ft.); blooming period April-August.	No	Not Expected	No vernal pool habitat occurs on-site.

	VPHCP: VP Cnty of SD List: A				
Packera (=*Senecio*) *ganderi* Gander's San Diego butterweed	CESA: SR CNDDB: SP CRPR 1B.2 MSCP: CS Cnty of SD List: A USFS: S BLM: S	Native, perennial herb that prefers the microhabitat in chaparral understory, often beneath chamise, on gabbroic outcrops and following burns, at elevations ranging from 400-1,200 meters (1,312-3,937 ft.); blooming period April-June.	No	No Expected	No suitable habitat or underlying gabbro derived soils occur on-site.
Quercus dumosa Nuttall's scrub oak	CNDDB: SP CRPR 1B.1 MHCP: CS Cnty of SD List: A USFS: S BLM: S	Native, evergreen shrub that prefers coastal chaparral with a relatively open canopy cover in flat terrain; on north-facing slopes this shrub may grow in dense monotypic stands; blooming period February-April.	No	Not Expected	No chaparral habitat occurs on-site for this evergreen shrub.
Selaginella cinerascens ashy spike-moss	CNDDB: SP CRPR 4.1 Cnty of SD List: D	Native, perennial, prostrate, ground-cover herb that occurs in undisturbed chaparral and sage scrub; ranges in elevation from 20-640 meters (66-2,100 ft.).	No	Low	Site soils appear too disturbed to support this low-growing perennial herb.
INVERTEBRATES					
Branchinecta sandiegonensis San Diego fairy shrimp	ESA: FE CNDDB: SA Cnty of SD Group: 1 MSCP: NE (Cnty of SD), CS MHCP: NE VPHCP: VP	Small, seasonal claypan puddles and vernal pools <30 cm deep. Most commonly found in a 50 km wide strip of San Diego county associated with coastal sage scrub and annual grasslands.	No	Not Expected	No suitable habitat, microconditions or soils on-site. No known records of this species in vicinity.
Cicindela latesignata obliviosa oblivious tiger beetle	Cnty of SD Group: 2 MHCP: NE	Restricted to coastal sea beaches, bays, estuaries, salt marshes, and alkali sloughs from LA County down into Mexico. Adults active May to October but most active in July.	No	Not Expected	No suitable habitat or soils on-site. No known records of this species in vicinity.

Euphyes vestris harbisoni Harbison's dun skipper	CNDDB: SA Cnty of SD Group: 1 MSCP: NE (Cnty of SD only) MHCP: NE, CS	Riparian oak woodland in a matrix of chaparral with moist conditions that support its host plant San Diego sedge (*Carex spissa*); adult flight period mid-May to mid-July.	No	Not Expected	No suitable habitat or soils on-site. No known records of this species in vicinity.
Panoquina errans wandering (saltmarsh) skipper	CNDDB: SA Cnty of SD Group: 1 MSCP: CS MHCP: CS	Salt marshes along the southwestern coast; caterpillar host plant os seashore saltgrass (*Distichlis spicata*); adults fly July to September and November to D ecember.	No	Not Expected	No suitable habitat on-site or in project vicinity. Although this species host plant does occur on-site, it is located within a limited amount of heavily disturbed non-native grassland that is located several miles upstream from the coast.
Streptocephalus woottoni Riverside fairy shrimp	ESA: FE CNDDB: SA Cnty of SD Group: 1 MSCP: CS MHCP: NE, CS VPHCP: VP	Various vernal pools in Western Riverside, Orange and San Diego Counties. Pools are at elevations ranging from 30-415 meters in seasonal grasslands, which may be interspersed among chaparral or coastal sage scrub vegetation.	No	Not Expected	No suitable habitat, microconditions or soils on-site. No known records of this species in vicinity.
AMPHIBIANS					
Anaxyrus californicus (=*Bufo microscaphus californicus*) arroyo toad	ESA: FE CNDDB: SA CDFW: SSC Cnty of SD Group: 1 MSCP: CS South Cnty MSCP: NE	This species utilizes shallow pools, open sand, and gravel flood terraces of intermittent to perennial streams, and may aestivate in adjacent upland communities within approximately 1.2 kilometers.	No	Not Expected	No suitable habitat on-site or in the project area. The portion of San Luis Rey in the project area is channelized and does not support a shallow braided system required by this species for breeding. The closest occurrence of this species is on Camp Pendleton approximately 2.4 miles to the north along Santa Margarita River separated from the project site by an

					active military base, open space, and urban development.
Spea hammondii western spadefoot toad	CNDDB: SA CDFW: SSC Cnty of SD Group: 2 North Cnty MSCP: CS MHCP: CS BLM: S	Breeding and egg laying occur almost exclusively in shallow, temporary pools formed by heavy winter rains, typically within grassland habitat.	No	Not Expected	No suitable breeding habitat on-site. Further, the on-site non-native grassland is densely covered.
REPTILES					
Aspidoscelis hyperythra orange-throated whiptail	CNDDB: SA CDFW: WL Cnty of SD Group: 2 MSCP: CS MHCP: CS USFS: S	This species is a diurnal reptile from early spring to late summer that prefers washes and other sandy areas with patches of brush and rocks in coastal scrub and chaparral.	No	Not Expected	No suitable habitat occurs on-site or in the project vicinity. Further, the heavy use of this site by humans and dogs/cats may also preclude this species from occurring on-site.
Emys (*=Emmys =Clemmys) marmorata pallida* Western (=southern pacific) pond turtle	CDFW: SSC CNDDB: SA Cnty of SD Group: 1 MSCP: NE (Cnty of SD only), CS MHCP: CS USFS: S BLM: S	Permanent or nearly permanent bodies of water below 600 ft. Require basking sites such as partially submerged logs, vegetation mats or open mud banks.	No	Not Expected	No suitable habitat occurs on-site or in the project vicinity.
Phrynosoma coronatum (*=blainvillii*) coast (San Diego) horned lizard	CNDDB: SA BLM: S CDFW: SSC Cnty of SD Group: 2 MHCP: CS	This species is endemic to southern California and northern Baja California, Mexico (USFS 2006b). This diurnal lizard occurs in a variety of habitats, including coastal sage scrub, chaparral, grassland, coniferous forest, oak woodland, riparian, and the margins of higher elevation desert, with an abundance of open areas for basking and obtaining prey (i.e., native ants and insects), and	No	Not Expected	No suitable habitat occurs on-site or in the project vicinity. Further, the heavy use of this site by humans and dogs/cats may also preclude this species from occurring on-site.

		loose, fine soils that provide camouflage and allow burrowing for protection from predators.			
BIRDS					
Accipiter cooperii Cooper's hawk	CNDDB[4]: SA CDFW: WL Cnty of SD Group: 1 MSCP: CS MHCP: CS	Year-round resident of San Diego County that frequently nests in dense stands of live oak, riparian deciduous or other forest habitats located near water and along broken woodland habitat and edges, where it can perch under cover and hunt prey, including amphibians, reptiles, and small birds and mammals.	No	Not Expected On-site; Observed Off-site Only	No suitable breeding habitat on-site; a limited amount of foraging habitat on-site. Not observed on-site during multiple biological surveys. Observed offsite within adjacent residential development and SLR River riparian habitat where an abundance of suitable breeding and foraging habitat occurs.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	CNDDB: SA CDFW: WL Cnty of SD Group: 1 MSCP: CS MHCP: CS	Sedentary year-round resident that occurs in sparse, mixed chaparral and sage scrub habitats, often on rolling, herbage-covered hillsides with scattered shrubs and rocky outcrops; breeds from Mar-Jun, with nests built on the ground concealed at the base of grass or a shrub.	No	Not Expected	No suitable habitat on-site. Not observed or detected during biological surveys.
Artemisiospiza belli belli Bell's sage sparrow	CNDDB: SA CDFW: WL Cnty of SD Group: 1 North Cnty MSCP: CS MHCP: CS	Sedentary year-round resident in chaparral and sage scrub that is not too dense and has open ground, not encumbered by leaf litter. Prefers gabbro soils and south facing slopes. Nests are cups of dry twigs and herb stems located on the ground beneath a shrub between March 25 and mid-July.	No	Not Expected	No suitable habitat or soils on-site. Not observed or detected during biological surveys.

Aquila chrysaetos golden eagle	CNDDB[4, 5]: SA CDFW: FP, WL Cnty of SD Group: 1 MSCP: CS South Cnty MSCP: NE MHCP: CS USFWS: BCC	Year-round resident that nests primarily on cliff ledges or trees on steep slopes, during the breeding season generally from early Feb through April, near open habitats, such as grasslands, oak savannahs, and open shrublands, for foraging.	No	Not Expected	No suitable breeding habitat on-site. The non-native grassland on-site is limited in size and surrounded by urban or human use.
Athene cunicularia burrowing owl	CNDDB[4, 5]: SA CDFW: SSC MSCP: CS North Cnty MSCP: NE South Cnty MSCP: NE Cnty of SD Group: 1 MHCP: CS USFWS: BCC	Occurs in open dry grasslands, agricultural, rangelands and desert habitats as well as airports, golf courses, and vacant urban lots.	No	Low	Although the site supports non-native grassland and disturbed habitat, as well as ground squirrel burrows, no evidence (i.e., sign, pellets) of this species was observed on-site during multiple surveys. Further, the site is heavily used by people and their dogs.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	CDFW: SSC CNDDB: SA MSCP: NE (Cnty of SD only), CS MHCP: NE, CS Cnty of SD Group: 1 USFS: S USFWS: BCC	A year-round resident that occurs in cactus dominated Diegan coastal sage scrub. The cactus wren nests in coast cholla (*Cylindropuntia prolifera*) and prickly pear (*Opuntia littoralis*).	No	Not Expected	No suitable habitat or coast cholla present on-site
Charadrius nivosus nivosus western snowy plover	ESA: FT CDFW: SSC CNDDB[4]: SA MSCP: CS MHCP: CS Cnty of SD Group: 1 USFWS: BCC	Partial migrant that nests, winters, and forages on sandy ocean beaches, drying margins of lagoons, tidal mudflats, salt panne, and small pond levees.	No	Not Expected	No suitable habitat or soils on-site. Not observed or detected during biological surveys.
*Circus cyaneus*hen harrier (formerly northern harrier)	MSCP: CS Cnty of SD Group: 1	Year-round resident and winter visitor that nests and forages in open grassland and marshes; forages mostly on voles and other small mammals, birds,	No	Not Expected	No suitable breeding habitat on-site; a limited amount of potential foraging habitat that is low quality, may be too dense, and heavy human

		frogs, small reptiles, crustaceans, and insects; nests built of a large mound of sticks in wet areas, and a smaller cup of grasses on dry sites; breeds Apr-Sep, with peak activity Jun-Jul.			and dog use may preclude this species from foraging on-site. Not observed on-site during multiple biological surveys.
Setophaga (=V Dendroica) petechia brewsteri yellow warbler	CDFW: SSC CNDDB[4]: SA Cnty of SD Group: 2 USFWS: BCC	Summer resident but can be found during migration and winter in small numbers; found in mature riparian woodlands; nesting occurs from May through July.	No	Not Expected On-site; Observed Off-site Only	No suitable habitat on-site. Observed offsite only within adjacent SLR River riparian habitat where an abundance of suitable habitat occurs.
Elanus leucurus white-tailed kite	CDFW: FP CNDDB[4]: SA Cnty of SD Group: 1 BLM: S	Year-round resident; prefers riparian woodland, oak groves or sycamore groves adjacent to grasslands for foraging. Diet consists of the California vole or meadow mouse. Nests mid-February though June.	No	Not Expected Onsite; Observed Off-site Only	No suitable breeding habitat on-site; a limited amount of potential foraging habitat that is low quality, may be too dense, and heavy human and dog use may preclude this species from foraging on-site. Not observed on-site during multiple biological surveys. Observed off-site only flying over and foraging within adjacent SLR River riparian habitat where an abundance of suitable habitat occurs.
Empidonax traillii extimus southwestern willow flycatcher	ESA: FE CESA: SE CNDDB: SA MSCP: NE (Cnty of SD), CS MHCP: CS Cnty of SD Group: 1	Summer resident, arriving by mid-May and remaining through mid-July. This bird is a riparian obligate and primarily occurs in densely vegetated riparian habitats, preferring streamside in areas that have water throughout the spring and summer.	No	Not Expected Onsite; Known Occurrence Offsite Only	No suitable habitat on-site. One southwestern willow flycatcher occurrence is documented off-site within the riparian canopy associated with San Luis Rey River that is separated from the project site by the SLR levee and bike path

Falco peregrinus anatum peregrine falcon	CDFW: FP CNDDB[4]: SA MSCP: NE (Cnty of SD only), CS MHCP: CS Cnty of SD Group: 1 USFWS: BCC	Year-round resident and winter visitor; nests along the coast on any high structure or cliff; most frequent along or near coast around mudflats, shores or ponds where they feed on shorebirds and ducks.	No	Not Expected	No suitable habitat or nesting structures on-site. Not observed or detected during biological surveys.
Icteria virens yellow-breasted chat	CDFW: SSC CNDDB[4]: SA MHCP: CS Cnty of SD Group: 1	Summer resident to riparian woodland/scrub with dense undergrowth below 1500 feet elevation. Arrives in early April and departs by mid-September.	No	Not Expected On-site; Observed Off-site Only	No suitable habitat on-site. Observed off-site only within adjacent SLR River riparian habitat where an abundance of suitable habitat occurs.
Pandion haliaetus osprey	CDFW: WL CNDDB[4]: SA MHCP: CS Cnty of SD Group: 1	Year-round resident of San Diego County, preferring the coast and inland lakes. Nests on high structures (i.e., trees, light poles) in the vicinity of water where it forages on fish.	No	Not Expected	No suitable habitat on-site.
Passerculus sandwichensis beldingi Belding's savannah sparrow	CESA: SE CNDDB: SA MSCP: NE (Cnty of SD only), CS MHCP: CS Cnty of SD Group: 1	Year-round resident that occurs exclusively in salt and brackish marshes along the coast; nests in pickleweed (*Sarcocornia pacifica*).	No	Not Expected	No suitable habitat on-site.
Passerculus sandwichensis rostratus large-billed savannah sparrow	CDFW: SSC CNDDB[5]: SA MSCP: CS MHCP: CS Cnty of SD Group: 2	Winters visitor in salt marshes and mudflats of coastal lagoons.	No	Not Expected	No suitable habitat on-site.
Pelecanus occidentalis californicus California brown pelican	CDFW: FP CNDDB: SA MSCP: CS MHCP: CS Cnty of SD Group: 2 BLM: S USFS: S	Winter and migrant visitor found in estuaries, coastal saltwater, and open ocean; observed in small numbers during the summer and nests on nearby Los Coronados Island.	No	Not Expected	No suitable habitat on-site.
Plegadis chihi	CDFW: WL	Year-round resident with	No	Not Expected	No suitable habitat on-site.

white-faced ibis	CNDDB[4]: SA MSCP: CS MHCP: CS Cnty of SD Group: 1	increased numbers during the winter. Nests in freshwater marshes and forages in shallow water and wet grasslands.			
Polioptila californica californica coastal California gnatcatcher	ESA: FT CDFW: SSC CNDDB: SA MSCP: NE (Cnty of SD only); CS MHCP: CS Cnty of SD Group: 1	Year-round resident in coastal areas below 500 m (1,500 ft); prefers coastal sage scrub habitat that is dominated by *Eriogonum fasciculatum* var. *fasciculatum* and *Artemisia californica* as well as open chaparral.	No	Not Expected	No suitable habitat (e.g., Diegan coastal sage scrub) onsite or immediately adjacent, or in close proximity to the project site. No gnatcatchers detected onsite during recent biological surveys conducted onsite in August 2020, January 2021, and April 2021. No known records of this species in project area. Designated gnatcatcher critical habitat and closest potential suitable habitat occurs on the opposite side of San Luis Rey River to the northwest at least 400 feet from the project site.
Rallus obsoletus (=longirostris) levipes light-footed Ridgeway's (clapper) rail	ESA: FE CESA: SE CDFW: FP CNDDB: SA MSCP: CS MHCP: CS Cnty of SD Group: 1	Year-round resident of the tidal salt marshes that support California cordgrass *(Spartina foliosa).* Due to overcrowding the rail is also moving inland to freshwater marshes adjacent to estuaries. Peak nesting season occurs in April and May.	No	Not Expected Onsite; Known Occurrence Offsite Only	No suitable habitat on-site. One known USFWS occurence is documented off-site and adjacent to the project site within the riparian canopy associated with San Luis Rey River to the north.
Sialia mexicana western bluebird	MSCP: CS MHCP: CS Cnty of SD Group: 2	Year-round residents; favors foothill and mountain habitat with meadows for foragining. Spreading into urban areas, farmlands, and orchards with mature trees and lawns. Cavity nesters that nest early April	No	Low	Only two trees on-site that may be considered potentially suitable habitat. This species would likely utilize the adjacent suitable habitat in SLR River channel and residential

		through end of June.			developments.
Sternula (=*Sterna*) *antillarum browni* California least tern	ESA: FE CESA: SE CDFW: FP CNDDB[4]: SA MSCP: NE (Cnty of SD only), CS MHCP: CS Cnty of SD Group: 1	Summer visitor; nests on sandy ocean beaches, drying margins of lagoons, tidal mudflats and salt pond levees. Arrive mid-April and leave by the end of August.	No	Not Expected	No suitable habitat on-site.
Thalasseus (=*Sterna*) *elegans* elegant tern	CDFW: WL CNDDB[4]: SA MSCP: CS MHCP: CS Cnty of SD Group: 1	Summer visitor and fall migrant to coastal estuaries, salt ponds, and coastal bays in San Diego County. Known to nest at the Salt Works. Colonial nesting starts early March through July and numbers decline by December.	No	Not Expected	No suitable habitat on-site.
Vireo bellii pusillus least Bell's vireo	ESA: FE CESA: SE CNDDB[4]: SA MSCP: NE (Cnty of SD only), CS MHCP: CS Cnty of SD Group: 1	Summer visitor to southern willow scrub habitat and mesquite thickets. Arrives in San Diego County by late March or early April and leaves by the end of September.	No	Not Expected On-site; Known Occurrences Off-site	No suitable habitat on-site. Many least Bell's vireo occurences have been documented off-site and adjacent to the project site within the riparian canopy associated with San Luis Rey River to the north, west, and south. This species was detected by call by M&A biologists within off-site habitat to southwest of project site during the April 2021 biological survey.
MAMMALS					
Antrozous pallidus pallid bat	CNDDB: SA USFS: S CDFW: SSC North Cnty MSCP: CS East Cnty MSCP draft: CS Cnty of SD Group: 2	Nocturnal bat species that is a yearlong resident throughout California and occurs in a wide variety of habitats, including grasslands, shrublands, woodlands, and forests, but	No	Not Expected	No preferred roosting or foraging habitat on-site

		prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging; may forage up to 2.5 km (3 mi) from day roost.			
Chaetodipus fallax fallax northwestern San Diego pocket mouse	CNDDB: SA CDFW: SSC Cnty of SD Group: 2 MHCP: CS	Nocturnal species that occurs in a variety of habitats, including coastal scrub, chaparral and grasslands, typically in brushy areas along grass-chaparral edge.	No	Not Expected	No suitable habitat on-site
Dipodomys stephensi Stephens' kangaroo rat	ESA: FE CESA: ST CNDDB: SA North Cnty MSCP: NE, CS East Cnty MSCP draft: CS Cnty of SD Group: 1 MHCP: CS	Areas of sparse vegetation primarily grasslands but may occur in sage scrub or disturbed areas.	No	Not Expected	The non-native grassland onsite is dense which is not a preferred habitat condition for this species. The smaller areas of disturbed habitat and open compacted areas are limited on-site and heavily used by domestic dogs and people. No known records for this species in the project area.
Eumops perotis californicus western mastiff bat	CNDDB: SA CDFW: SSC Cnty of SD Group: 2 BLM: S	Nocturnal bat species that occurs in many open, semi-arid to arid habitats, including woodlands, coastal scrub, grasslands, chaparral, desert scrub, and urban areas; roosts in crevices in vertical cliff faces, high buildings, trees, and tunnels.	No	Not Expected	No suitable roosting habitat or structures and limited foraging habitat on-site.
Puma (=*Felis*) *concolor* mountain lion	MSCP: CS Cnty of SD Group: 2 MHCP: CS	Mostly nocturnal and crepuscular large mammal that occurs throughout California and typically requires extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of	No	Not Expected	No suitable habitat on-site, although the project site is located adjacent to SLR River, a regional wildlife corridor.

		irregular terrain, rocky outcrops, and tree/brush edges, where prey, predominantly consisting of mule deer, are present; active yearlong, but has season movement during the fall within a fixed range in response to migrating deer herds (generally August to October).			
Lepus californicus bennettii San Diego black-tailed jackrabbit	CNDDB: SA CDFW: SSC North Cnty MSCP: CS East Cnty MSCP draft: CS Cnty of SD Group: 2 MHCP: CS	Diurnal and crepuscular herbivore that occurs in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats.	No	Not Expected	No suitable habitat on-site. This species was not observed or detected on-site during multiple biological surveys.
Odocoileus hemionus fuliginata southern mule deer	MSCP: CS Cnty of SD Group: 2 MHCP: CS	Typically crepuscular species, but may be active during the day or night, that occurs in early to intermediate successional stages of most forest, woodland, and brush habitats, but prefers a mosaic of various-aged vegetation that provides woody cover, meadow and shrubby openings, and free water.	No	Not Expected	No suitable habitat on-site. Although the project site is located adjacent to the SLR River, the project site's location is in close proximity to urban development and may preclude this species.
Perognathus longimembris pacificus Pacific little pocket mouse	ESA: FE CDFW: SSC CNDDB: SA MHCP: NE Cnty of SD Group: 1	This species has occurred on fine-grain, sandy substrates in open coastal sage scrub, coastal strand, coastal dune, and river alluvium habitats. The extant populations at the three known locales occur within open coastal sage scrub habitats growing on marine terraces within approximately 4 kilometers *(2.5* miles) of the ocean (USFWS 1998).	No	Not Expected	No suitable habitat on-site. The project site is located approximately 3 miles from the closest USFWS GIS record on Camp Pendleton and southeast of the known range of this species that is currentlly limited to Camp Pendleton in San Diego County.

[1]References for Sensitivity Codes and Status: County 1997, Ogden et al. 1998, AMEC 2003a, County 2009b and d, CDFG 2011b-d

[2]California Natural Diversity Database Special Plants/Animals = A general term that refers to all taxa inventoried by the CDFG CNDDB, regardless of their legal or protection status; these taxa include species, subspecies, or varieties that fall into one of the above categories and/or one or more of the following categories: 1) Taxa officially listed or proposed for listing under the federal and/or state ESA; 2) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines, which may include California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) Lists 1 and 2, and some List 3 plants; 3) Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive (S) Species; 4) Taxa considered SSC by the CDFG; 5) Taxa listed by the CNPS; 6) Taxa that are biologically rare, very restricted in distribution, declining throughout their range but are not currently threatened with extripation, or have a critical, vulnerable stage in their life cycle that warrants monitoring; 7) Populations in California that may be peripheral to the major portion of a taxon's range, but are threatened with extirpation in California; 8) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 8) In addition to the above taxa, those taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) [e.g., The World Conservation Union (IUCN) Conservation Dependent (CD), Critically Endangered (CR), Data Deficient (DD), Endangered (EN), Least Concern (LC), Near Threatened (NT), Vulnerable (V) species; California Department of Forestry and Fire Protection (CDF) Sensitive (S) species; National Marine Fisheries Service (NMFS) Species of Concern (SC); American Fisheries Society (AFS) Endangered (EN), Threatened (TH), Vulnerable (VU) species; Xerces Society (XERCES) Critically Imperiled (CI), Data Deficient (DD), Imperiled (IM), Vulnerable (VU) invertebrate species; USFWS Birds of Conservation Concern (BCC); American Bird Conservancy (ABC) U.S. Watch List of Birds of Conservation Concern (WLBCC); Marine Mammal Commission (MMC) Marine Mammal Species of Special Concern (SSC); and The Western Bat Working Group (WBWG) High (H), Low-Medium (LP), Medium (M), Medium-High (MH) Priority species].

[3]References for Habitat Preferences/Requirements: (plants) Reiser 2001, County 2009d, CNPS 2010; (butterflies) Faulkner and Klein 2004, Opler 2006; (amphibians and reptiles) Stebbins 2003, CDFG 2010a; (birds) AOU Birds of North America On-line 2010 and CDFG 2010a; (mammals) CDFG 2010a.

[4]CNDDB only tracks the nesting locations of these bird species; the location of the nest or any indication of breeding (i.e., territorial males, adults carrying nest material, adults carrying food, the presence of newly fledged young, etc.) is acceptable evidence of nesting. County of San Diego listing is for breeding populations only.

[5]CNDDB only tracks the wintering range of these bird species. County of San Diego listing is for wintering populations only

REFERENCES

U.S. Fish and Wildlife Service. 1998. Pacific Pocket Mouse *(Perognathus longimembris pac~ficus)* Recovery Plan. Portland, OR. ll2pp.

U.S. Fish and Wildlife Service. 2000. Recovery plan for bighorn sheep in the Peninsular Ranges, California. U.S. Fish and Wildlife Service, Portland, OR. xv+251 pp.

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). Website https://www.rareplants.cnps.org [June 25, 2021].

APPENDIX 4. PHOTOS TAKEN WITHIN PROJECT STUDY AREA

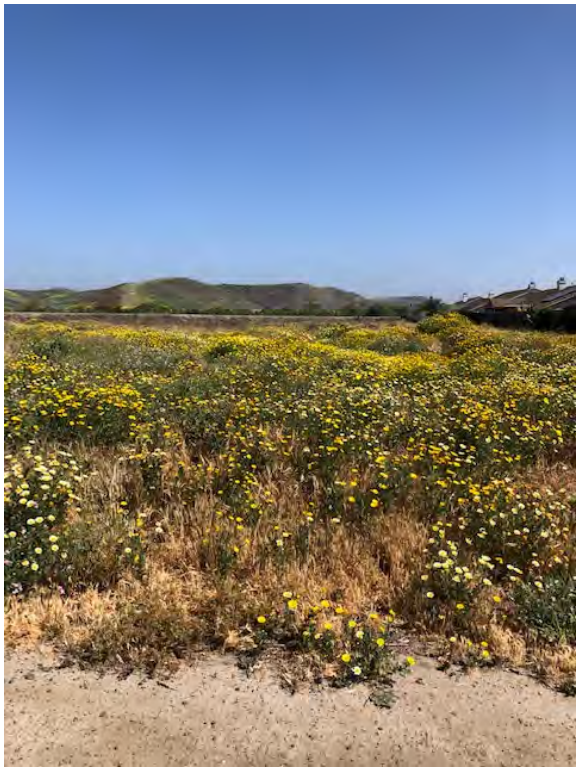


Photo Point 1. Photo taken April 20, 2021 facing north.

Photo Point 2. Photo taken April 20, 2021 facing southwest

Photo Point 3. Photo taken April 20, 2021 facing northwest.

Photo Point 4. Photo taken August 7, 2020 facing southeast showing onsite ditch.

Photo Point 5. Photo taken January 8, 2021 facing west showing Pala Road runoff into ditch.

Photo Point 6. Photo taken January 8, 2021 facing north showing onsite Pala Road ditch.

Photo Point 7. Photo taken January 8, 2021 facing southwest showing onsite Pala Road ditch.

Photo Point 8. Photo taken January 8, 2021 facing northeast showing onsite Pala Road ditch.

Photo Point 9. Photo taken January 8, 2021 facing south showing Pala Road ditch outfall.

Photo Point 10. Photo taken January 8, 2021 facing east showing vicinity of Pala Road ditch including the outfall of brow ditch along toe of SLR berm that drains into adjacent riparian area.

APPENDIX 5. PROPOSED CSS HABITAT ENHANCEMENT

Merkel & Associates, Inc.
5434 Ruffin Road, San Diego, CA 92123
Tel: 858/560-5465 • Fax: 858/560-7779
e-mail: associates@merkelinc.com

April 5, 2021
M&A #20-069-02

Mr. Jeb Hall
Concordia Homes
380 Stevens Avenue, Suite 307
Solana Beach, CA 92075

Concordia Homes-Cypress Point Project – San Luis Rey River Buffer Habitat Enhancement Proposal

Dear Mr. Hall:

Merkel & Associates, Inc. (M&A) has prepared this letter report regarding a proposal for habitat enhancement within the San Luis Rey (SLR) River buffer to address proposed encroachment into the City of Oceanside's draft Hardline Preserve and Wildlife Corridor Planning Zone (WCPZ) as well as potential indirect impacts from the proposed Cypress Point project, as requested by the Wildlife Agencies during the project meeting on March 11, 2021.

If you have any questions concerning this letter report, please do not hesitate to contact me at 858-560-5465 or gkrantz@merkelinc.com.

Sincerely,

Gina M. Krantz
Gina Krantz
Senior Biologist/Project Manager

Keith W. Merkel
Keith W. Merkel
Principal Consultant

The proposed Cypress Point project property's smaller size and narrow configuration is constrained by the encroachment of the SLR River levee/brow ditch into the northwestern corner onsite, sewer main along the western boundary as well as an existing residential development directly to the east. The project proposes to avoid the northwestern corner of the site to accommodate the SLR River levee and brow ditch as well as the SLR River 100-foot riparian habitat buffer but would encroach approximately 75-100 feet into the City of Oceanside's draft Hardline Preserve and WCPZ totaling 0.9 acre that consists of disturbed habitat and non-native grassland that is regularly utilized by dogs and their owners.

To account for the proposed 0.9 acre of Preserve/WCPZ encroachment, the project proposes the following:

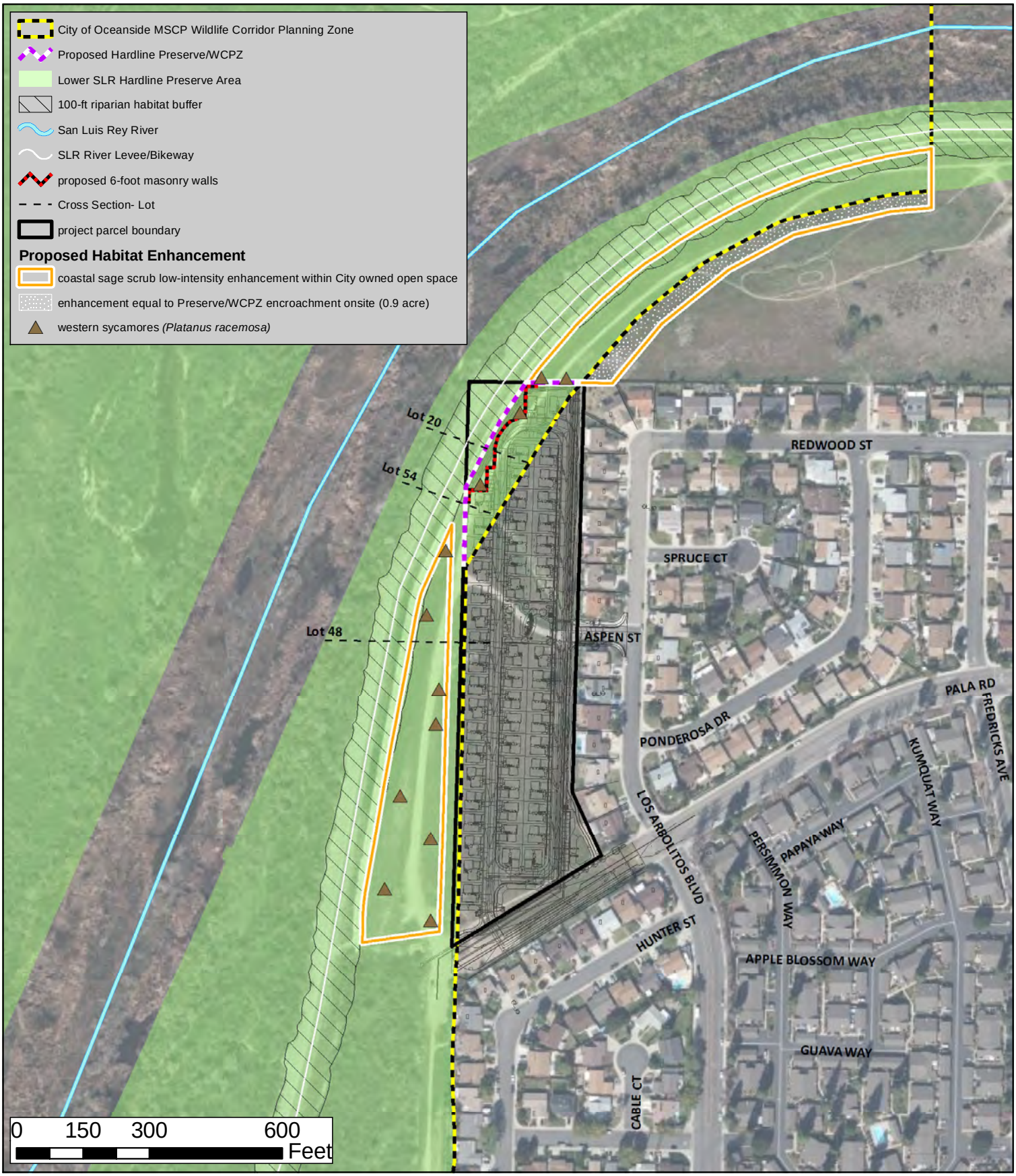
- Coastal sage scrub low-intensity enhancement of 0.9 acre on City of Oceanside land located northeast of project site and outside but contiguous with the existing Preserve/WCPZ in the project vicinity (*see figure*). The proposed CSS enhancement in the 0.9-acre area would be a part of the larger habitat enhancement effort within the SLR River buffer as described below.

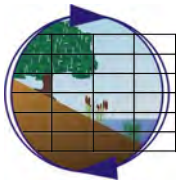
- Coastal sage scrub low-intensity enhancement of approximately 3.5 acres on City of Oceanside land north and west of project site with the existing Preserve/WCPZ in the project vicinity (*see figure*), as follows:

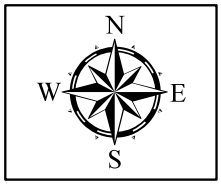
    - Based on existing site constraints and the overall goal to enhance the SLR River buffer and not necessarily to support breeding gnatcatcher, the project proposes low-intensity coastal sage scrub enhancement that consists of minor site preparation, coastal sage scrub hydroseeding, and minor maintenance. Low-intensity enhancement is defined in Subarea Plan Section 7.2.3 as an appropriate restoration goal within the WCPZ to "improve wintering foraging habitat or dispersal habitat for gnatcatchers in areas not expected to support breeding gnatcatchers (e.g., narrow, linear strips). In such limited cases, enhancement may consist of hydroseeding with sage scrub species, with little or no site preparation or maintenance."

    - The proposed habitat enhancement is located on City owned land designated as open space, and predominately in the Hardline Preserve that would be protected in perpetuity;

    - A proposed CSS low-intensity enhancement plan would be prepared by a qualified restoration biologist that is consistent with the guidelines in the *MHCP Section 6* as well as the City's *Subarea Plan Section 5.3.1 WCPZ* and *Section 7.2.3 Habitat Restoration,* or as approved by the City and Wildlife Agencies. In addition, several western sycamore (*Platanus racemosa)* trees are proposed to be planted to minimize potential indirect impacts as discussed further below. Based on the guidance from the MHCP and the City's Subarea Plan, the proposed CSS low-intensity enhancement plan and the western sycamore tree planting plan contents and success criteria may include the following information and conditions:







Proposed Habitat Enhancement

Concordia Homes - Cypress Point

Aerial Source: Bing 2020

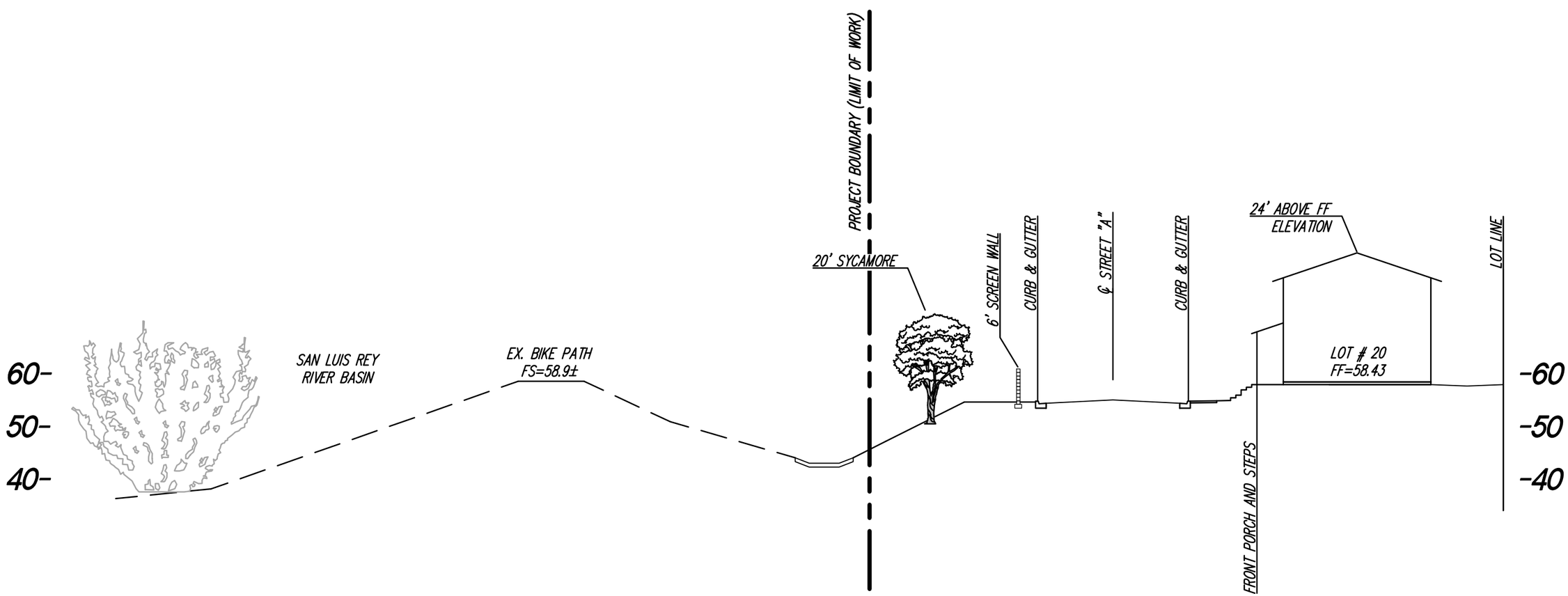
Created on March 23, 2021

1. **Final specifications and topographic-based site preparation, hydroseeding/planting and irrigation plans**, including 10-foot contours and typical cross-sections for upland enhancement sites. All enhancement areas shall be prepared for hydroseeding/planting by decompacting the topsoil in a way that mimics natural upland habitat topsoil to the maximum extent practicable while maintaining slope stability. All tree plantings shall be installed in a way that mimics natural plant distribution, and not in rows;
2. **Coastal sage scrub hydroseed palette/Western sycamore planting** (native seed mix [plant species and pounds pure live seed/acre] and western sycamore trees [size and number/acre]). The western sycamore container plants and coastal sage scrub hydroseed palette proposed in the enhancement plan shall include native species specifically associated with Diegan coastal sage scrub and consistent with Table 7-1 of Subarea Plan. The source and proof of locality of all plant material and seed shall be provided;
3. **Container tree plant survival** shall be 80 percent of the initial plantings for the first 3 years. At the first and second anniversary of tree installation, all dead trees shall be replaced unless their function has been replaced by natural recruitment;
4. **A final implementation schedule** for project construction impacts, as well as enhancement site preparation, planting and irrigation implementation. Necessary site preparation and planting shall be completed during the concurrent or next planting/rainy season (i.e., late fall to early spring);
5. **Three years of maintenance and success criteria** for habitat enhancement areas. A temporary irrigation above grade system would be installed and maintained within the enhancement areas; temporary irrigation will be gradually reduced and eventually turned off prior to the end of the third year unless success criteria is met before that time frame. Habitat maintenance would consist of non-native invasive plant species control through the use of mechanical and/or chemical control by an approved applicator. Success criteria would consist of ensuring the absence of Cal-IPC's "Invasive Plant Inventory" species, and no more than 10 percent coverage for other exotic/weed species;
6. **Three years of qualitative monitoring** of enhancement areas. Qualitative vegetation monitoring would consist of regular site visits by a qualified restoration biologist to assess the overall quality of the habitat and site conditions and threats. The plan would provide a tentative schedule and assessment criteria qualitative monitoring including photo documentation at established photo points within the enhancement site;
7. **Contingency measures** in the event of enhancement failure; and
8. **Annual maintenance and monitoring brief summary reports** shall be submitted to the City and Wildlife Agencies no later than December 1 of each year for their review and records.

To address the potential indirect project impacts such as increased artificial night lighting and elevated noise, human disturbance, and the invasion of non-native plant species from the project to the SLR River Hardline Preserve and WCPZ, the project proposes the following project features. Where applicable these features are exhibited in the included figure as well as in Appendix 1 that includes cross-sections of three representative proposed lots in relation to the SLR River levee and riparian habitat. Further, Appendix 2 includes existing photos to aid in providing context to the location of the proposed lots in relation to the adjacent existing levee and the SLR riparian habitat as well as to help demonstrate how the levee and the project features would act to shield and minimize indirect impacts (e.g., night light spill) into the adjacent SLR riparian habitat.

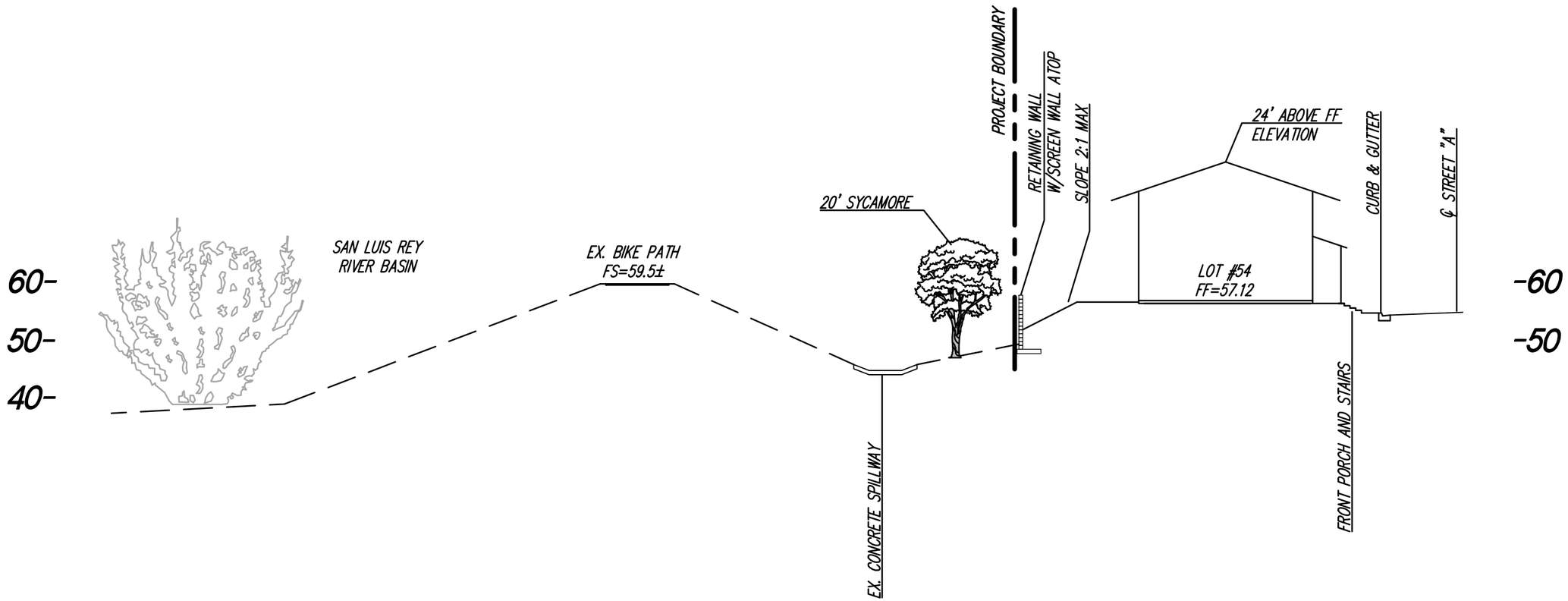
- Placement of 6-foot-high masonry walls at the top of slope along the project perimeter in the northwest corner to minimize potential lighting and noise impacts and avoid human access to the SLR River buffer;
- Planting, maintenance, and monitoring of several western sycamore trees along the northern and western project property boundaries (outside and setback from the existing SLR River levee and sewer mains in proximity) to minimize potential lighting and noise impacts; placement of 6-foot-high fencing along remainder of proposed project northern and western boundaries to avoid or minimize human access to the SLR River buffer;
- No streetlights are required throughout the interior project streets and therefore none are proposed (one exception along Pala Road where one streetlight is proposed for safety reasons);
- Proposed lighting on homes would be directed downward and shielded to avoid light spill into the adjacent Preserve/WCPZ. Further, proposed lighting on homes would use the lowest intensity lighting appropriate for the task and use lights with little to no blue wavelengths and warmer color temperatures (e.g., low-pressure sodium lights) where feasible.
- Preparation and submittal of a project Landscape Plan with a proposed plant palette that shall prohibit invasive non-native plant species on the California Exotic Pest Plant Council List of Exotic Pest Plants of Greatest Ecological Concern in California and Subarea Plan Table 5-5 that could spread into the adjacent Preserve. Due to the project size and proximity to the Preserve (within 500 feet), all proposed project landscaping shall consist of native plant species appropriate for the project area and consistent with Subarea Plan Table 5-4. Further, the Landscape Plan shall include an irrigation plan that shall demonstrate how the proposed project irrigation shall be contained to the project development and shall not drain or overspray resulting in potential spread of invasive plant species, erosion, and/or non-native species such as Argentine ants.

Appendix 1. Cross Sections



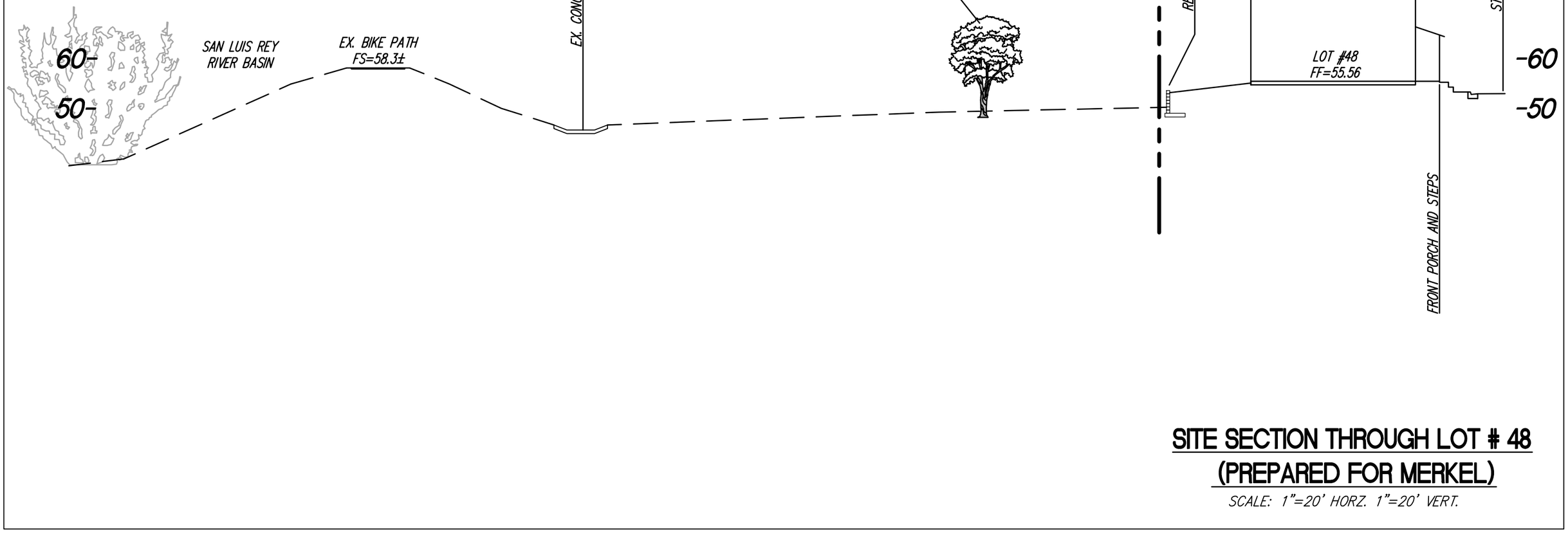
SITE SECTION THROUGH LOT # 20
(PREPARED FOR MERKEL)

SCALE: 1"=20' HORZ. 1"=20' VERT.



SITE SECTION THROUGH LOT # 54
(PREPARED FOR MERKEL)

SCALE: 1"=20' HORZ. 1"=20' VERT.



SITE SECTION THROUGH LOT # 48
(PREPARED FOR MERKEL)

SCALE: 1"=20' HORZ. 1"=20' VERT.

Appendix 2. Photo Pages

Photo Point 1. Photo taken March 29, 2021 facing northwest from approximate location near proposed Lot 20 toward existing levee and San Luis Rey River habitat (partially visible).

Photo Point 2. Photo taken March 29, 2021 facing west from approximate location near proposed Lot 48 toward existing levee and San Luis Rey River habitat (partially visible).