
Appendix E

Biological Survey Report

BIOLOGICAL SURVEY REPORT

CARLTON OAKS COUNTRY CLUB AND RESORT

CITY OF SANTEE PROJECT #'S: TM2019-1; R2019-1; DR2019-5
CITY OF SAN DIEGO PROJECT #: 648381

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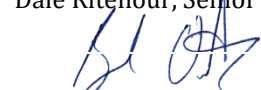
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Acronyms and Abbreviations

| | |
|---------|--|
| BMPs | best management practices |
| BSA | biological study area |
| CCR | Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CLOMR | Conditional Letter of Map Revision |
| CNDDB | California Natural Diversity Data Base |
| CNPS | California Native Plant Society |
| CRPR | California Rare Plant Rank |
| CWA | Clean Water Act |
| dBA | A-weighted decibels |
| ESA | Endangered Species Act |
| ESL | Environmentally Sensitive Lands |
| FEMA | Federal Emergency Management Agency |
| FGC | California Fish and Game Code |
| FR | Federal Register |
| GIS | geographic information system |
| HUC | Hydrologic Unit Code |
| LOMR | Letter of Map Revision |
| MBTA | Migratory Bird Treaty Act |
| MCAS | Marine Corps Air Station |
| MHPA | Multi-Habitat Preserve Area |
| MND | Mitigated Negative Declaration |
| MSCP | Multiple Species Conservation Program |
| NAP | Not a Part |
| NCCP | Natural Community Conservation Planning |
| NHD | national hydrography dataset |
| NPPA | Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| OHWM | Ordinary High Water Mark |
| PDMWD | Padre Dam Municipal Water District |
| project | Carlton Oaks Country Club and Resort Project |
| RMP | Resource Management Plan |
| RWQCB | Regional Water Quality Control Board |
| SANDAG | San Diego Association of Governments |
| SCP | Scientific Collection Permit |
| SR-52 | State Route 52 |
| SSURGO | Soil Survey Geographic |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |

Summary

Lennar Homes and Carlton Oaks Golf Course, as joint project proponents, are proposing to redevelop the Carlton Oaks Country Club into a resort with residential accessory uses. The proposed Carlton Oaks Country Club and Resort Project (project) would include a redesign of the existing Carlton Oaks golf course, construction of residential accessory uses consisting of two residential neighborhoods; redevelopment of the hotel and clubhouse features, including a pro shop; and learning center; and related roadway and utility infrastructure improvements.

The proposed project is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway and is within the City of Santee and City of San Diego, in San Diego County, California. The City of Santee is the Lead Agency under the California Environmental Quality Act (CEQA) for the proposed project.

The proposed project has been identified as Not a Part (NAP) of the Subarea Plan Area. The take authorization under the Subarea Plan is not available for projects occurring in the NAP areas. The applicant will seek take authorization through Endangered Species Act (ESA) Section 7 or an individual Section 10 permit. The applicant will process all required permits and adhere to all relevant regulatory requirements. Impacts on listed species will utilize standard state and federal incidental take permit processes, as applicable. Mitigation recommendations will follow federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA) and the 2018 Wildlife Agency Draft Santee MSCP Subarea Plan. For lands within the City of San Diego, the Multiple Species Conservation Program (MSCP) San Diego Subarea Plan (City of San Diego 1997) will apply. The format and content of this Biological Survey Report is based upon the City of San Diego Biological Guidelines.

Biological surveys were conducted throughout the proposed project site, within 100 feet of the proposed project site and off-site improvement areas, collectively referred to as the biological study area (BSA), covering approximately 212 acres. The proposed project site includes the proposed hardscape development as well as the redesigned golf course and avoided wetlands. Vegetation mapping, habitat assessments, and a jurisdictional delineation were conducted within the proposed project site in 2019. Within the BSA, focused biological surveys were conducted for the following resources: rare plants (2019 and 2022), Southwestern pond turtle (*Actinemys pallida*; trapping 2019, visual 2022), Southwestern willow flycatcher (*Empidonax traillii extimus*; 2019), coastal California gnatcatcher (*Poliophtila californica californica*; 2019 and 2022), least Bell's vireo (*Vireo bellii pusillus*; 2019 and 2022), Crotch's bumble bee (*Bombus crotchii*; 2024), and western spadefoot (*Spea hammondi*; 2025). A summary of the results of these biological surveys is provided below.

The San Diego River (South Channel) is located adjacent to the southern side of the project site and within the City of San Diego's Multi-Habitat Preserve Area (MHPA). The MHPA is also designated over a small portion of the existing golf course in the southern section of lands within the City of San Diego. Within the project site, the MHPA covers 12.86 acres of golf course and 0.33 acres of avoided riparian habitat. No sensitive vegetation communities within the MHPA would be impacted as a result of the proposed project, and the use will remain a golf course. An existing manufactured berm is also located along most of the southern and eastern boundary, generally outside the project site and within the 100-foot buffer area. No alterations are being made to the berm.

Results

Vegetation Community Results

Thirteen vegetation communities were observed within the BSA: coastal and valley freshwater marsh, developed (including golf course), Diegan coastal sage scrub – disturbed, disturbed habitat, disturbed wetland, eucalyptus woodland, fresh water (open water), mule fat scrub – disturbed, non-native grassland, non-native riparian, non-native woodland, southern riparian scrub, and southern cottonwood-willow riparian forest (including disturbed). Nine of these are considered sensitive vegetation communities. All of the aforementioned communities were present within the City of Santee. Within the BSA within the City of San Diego, the following vegetation communities were observed: coastal and valley freshwater marsh, developed (including golf course), Diegan coastal sage scrub – disturbed, disturbed habitat, eucalyptus woodland, fresh water (open water), southern riparian scrub, and southern cottonwood-willow riparian forest (including disturbed).

Wetland Results

USACE/RWQCB

Ten aquatic resources within the delineation area were identified and mapped for potential USACE, RWQCB, and California Department of Fish and Wildlife (CDFW) jurisdiction. At least 8.07 acres of non-wetland and wetland aquatic resources likely subject to USACE and RWQCB regulatory jurisdiction (i.e., are waters of the State/U.S.) occur within the delineation area (the project site); the full extent of USACE/RWQCB jurisdiction was not determined within sections of NWW1 within Avoidance Areas in the northeast side of the project site, because these areas will not be affected by the project development.

California Department of Fish and Wildlife

There are 18.175 acres (8,012 linear feet) of streambed and riparian resources that would be subject to CDFW jurisdiction pursuant to Sections 1600–1616 of the California Fish and Game Code

City of San Diego

All CDFW jurisdictional habitat within the BSA within City of San Diego are considered City of San Diego Environmentally Sensitive Lands (ESL) wetlands. The San Diego River (North and South Channels) and adjacent riparian habitat are considered City of San Diego ESL wetlands.

Rare Plant Results

City of San Diego

Four special-status plant species were observed within the BSA within the City of San Diego: Palmer's sagewort (*Artemisia palmeri*), San Diego marsh-elder (*Iva hayesiana*), southern California black walnut (*Juglans californica* var. *californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). No MSCP San Diego Subarea Plan covered plant species were observed within the BSA. Specifically, no federally listed endangered San Diego ambrosia (*Ambrosia pumila*) were observed during focused surveys within the BSA in 2019 or 2022.

City of Santee

One special-status plant species, southwestern spiny rush, was observed within the BSA within City of Santee. No San Diego ambrosia were observed during focused surveys within the BSA in 2019 or 2022.

Sensitive Wildlife Species Results

City of San Diego

Potentially suitable habitat for southwestern pond turtle, California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, Crotch's bumble bee, and western spadefoot was identified within the BSA within the City of San Diego. No suitable habitat for Quino checkerspot butterfly or western burrowing owl was observed during a focused habitat assessment. No suitable breeding habitat was observed for tricolored blackbird (*Agelaius tricolor*). No suitable breeding or overwintering habitat was observed for Monarch butterfly (*Danaus plexippus*).

Focused surveys were conducted for least Bell's vireo in 2019 and 2022 and nesting least Bell's vireo determined to be present within the BSA. All suitable habitat within the BSA within the City of San Diego is considered occupied. Further, critical habitat for least Bell's vireo occurs within the San Diego River portions of the BSA.

Other focused surveys were conducted for southwestern pond turtle and coastal California gnatcatcher and these species were determined to be absent in 2019 and 2022. Focused surveys conducted for southwestern willow flycatcher determined this species to be absent from suitable habitat in the BSA in 2019. Revisions to the project footprint have avoided impacts to potential habitat for southwestern willow flycatcher. Since the project would not impact habitat for this species, surveys were not conducted during updates in 2022. Focused surveys were conducted for Crotch's bumble bee in 2024; this species was not observed in the BSA.

Five non-listed special-status and/or MSCP-covered species birds were incidentally detected during focused surveys or other biological surveys within the BSA in or adjacent to the City of San Diego: Cooper's hawk (*Accipiter cooperi*), vermilion flycatcher (*Pyrocephalus rubinus*), western bluebird (*Sialia mexicana*), yellow warbler (*Setophaga petechia*), and yellow-breasted chat (*Icteria virens*). One MSCP-covered species—southern mule deer—was observed.

Monarch butterfly (*Danaus Plexippus*) was incidentally observed foraging on site during surveys for Crotch's bumble bee in August 2024. Monarch is proposed threatened under the federal ESA. This species breeds exclusively on milkweeds (*Asclepias* spp.) and in California, may overwinter in protected groves of large trees generally within 1 mile of the Pacific coast. The proposed project site does not contain milkweed for reproduction, and does not contain suitable overwintering habitat, as the site is in an inland valley subject to occasional winter frosts. No proposed critical habitat for this species is present on the proposed project site or anywhere in San Diego County (89 FR 100662).

Two special-status reptile and one special-status avian species were determined to have high potential to occur within the BSA within the City of San Diego but were not detected incidentally during other biological surveys. These include Belding's orange-throated whiptail (*Aspidocelis hyperythra hyperythra*), two-striped garter snake (*Thamnophis hammondi*), and white-tailed kite (*Elanus leucurus*). These represent locally common species that occur in limited ranges or species that have been affected by development. Although focused surveys were not conducted to determine the presence/absence of these species, there is a reasonable assumption that these species would periodically to frequently utilize the habitats within the BSA due to the suitability of the habitat and the local distribution of these species. Western spadefoot, a federal candidate for listing, was determined to have low potential to occur. However, because marginal habitat for western spadefoot was located, a focal survey for egg clusters and larvae was performed in 2025; the survey was negative.

City of Santee

Potentially suitable habitat for southwestern pond turtle, California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and Crotch's bumble bee was identified within the BSA within the City of Santee and focused surveys were conducted. Southwestern pond turtle, California gnatcatcher, and southwestern willow flycatcher were determined to be absent as a result of negative results from focused surveys. No suitable habitat for Quino checkerspot butterfly or western burrowing owl was observed during a focused habitat assessment. No suitable breeding habitat was observed for tricolored blackbird. No suitable breeding or overwintering habitat was observed for Monarch butterfly.

Focused surveys were conducted for least Bell's vireo in 2019 and 2022 and nesting least Bell's vireo determined to be present within the BSA. All suitable habitat within the BSA within the City of Santee, except the riparian area on the west side of Residential North, is considered occupied habitat. Further, critical habitat for least Bell's vireo occurs within the San Diego River portions of the BSA.

Other focused surveys were conducted for southwestern pond turtle and coastal California gnatcatcher, and these species were determined to be absent in 2019 and 2022. Focused surveys conducted for southwestern willow flycatcher determined this species to be absent from suitable habitat in the BSA in 2019. Revisions to the project footprint have avoided impacts to potential habitat for southwestern willow flycatcher. Since the project does not have potential habitat for this species, surveys were not conducted during updates in 2022. Focused surveys were conducted for Crotch's bumble bee in 2024; this species was not observed in the BSA.

Five non-listed special-status species birds were incidentally detected during focused surveys or other biological surveys within the BSA in or adjacent to the City of Santee: Cooper's hawk, vermilion flycatcher, western bluebird, yellow warbler, and yellow-breasted chat. One MSCP-covered mammal species—southern mule deer—was observed. Two special-status reptile and one special-status avian species were determined to have high potential to occur within the BSA within the City of Santee but were not detected incidentally during other biological surveys. These include Belding's orange-throated whiptail, two-striped garter snake, and white-tailed kite. Monarch butterfly was incidentally observed foraging on ornamental and wildflowers during surveys for Crotch's bumble bee; no suitable milkweed breeding habitat was observed, and this site is unsuitable as breeding habitat. Western spadefoot, a federal candidate for listing, was determined to have low potential to occur.

Impacts and Significance**Sensitive Vegetation Communities***City of San Diego*

The proposed project would impact 0.19 acres of Diegan coastal sage scrub within the City of San Diego. All impacts would occur along the eastern shoulder of West Hills Parkway and are not within or adjacent to City of San Diego Multi-habitat Preserve Area (MHPA). The proposed project would have no other impacts on sensitive upland or wetland vegetation communities within the City of San Diego.

City of Santee

The proposed project would impact 0.41 acres of Diegan coastal sage scrub within the City of Santee, for a project total of 0.60 acres of Diegan coastal sage scrub impacts. The proposed project would impact 0.01 acres of non-native grassland (entirely within the City of Santee).

The proposed project would have a total of 1.30 acres of permanent impacts on sensitive wetland and riparian vegetation communities within the City of Santee, as follows: 0.12 acres of disturbed wetland, 0.34 acres of mule-fat scrub – disturbed, 0.04 acres of non-native riparian, 0.50 acres of southern cottonwood-willow riparian forest, and 0.30 acres of southern cottonwood-willow riparian forest – disturbed.

The proposed project would temporarily impact a total of 3.05 acres of sensitive wetland and riparian vegetation communities within the City of Santee, associated with temporary dewatering of a stretch of San Diego River (north channel). This includes 0.56 acres of coastal and valley freshwater marsh, 2.43 acres of fresh water, 0.05 acres of non-native riparian, and 0.01 acres of southern cottonwood-willow riparian forest.

The proposed project would temporarily impact a total of 0.08 acres of sensitive riparian vegetation communities within the City of Santee associated with expansion of culvert facilities for a channel crossing. This includes 0.02 acres of mule-fat scrub, 0.01 acres of southern cottonwood-willow riparian forest, and 0.06 acres of southern cottonwood-willow riparian forest – disturbed.

Water and sediment runoff from the construction area has the potential to temporarily impact local water quality, and sediment deposition can negatively affect wetland vegetation communities. Erosion of sediments during rain events during construction could deposit into waterways or wetlands and negatively affect the hydrology and associated ecology of the system. Temporary indirect impacts on sensitive wetland vegetation communities would be a potentially significant impact.

Dust resulting from heavy equipment grading the project could settle on nearby vegetation and interfere with the photosynthetic process of native vegetation, which could be a potentially significant impact on sensitive vegetation communities.

Wetlands

USACE/RWQCB

The proposed project would have no impact (temporary or permanent) on USACE/RWQCB jurisdictional wetlands. The proposed project would result in direct permanent loss of 0.289 acres of USACE/RWQCB jurisdictional non-wetland waters and 0.570 acres of permanent impact on USACE/RWQCB jurisdictional non-wetland waters. The proposed project would result in direct temporary impacts on 2.373 acres of USACE/RWQCB non-wetland waters.

California Department of Fish and Wildlife

The proposed project would have permanent direct impacts on up to 0.929 acres of CDFW vegetated streambed, and 0.148 acres of CDFW jurisdictional riparian habitat. The proposed project would have temporary direct impacts on up to 0.758 acres of CDFW jurisdictional vegetated streambed, 2.355 acres of unvegetated streambed, and 0.095 acres of CDFW riparian habitat. Impacts on wetlands would represent a significant adverse effect on state wetlands.

City of San Diego

The proposed project would not impact any wetlands, including City of San Diego ESL Wetlands, within the City of San Diego.

Sensitive Plant Species Impacts

City of San Diego

The proposed project would not impact any special-status plant species within the City of San Diego.

City of Santee

The proposed project would not impact any special-status plant species within the City of Santee.

Sensitive Wildlife Species Impacts

City of San Diego

The proposed project would not directly impact any state or federally listed wildlife or their habitat within the City of San Diego. Construction of the project could have indirect noise effects on least Bell's vireo nesting in suitable habitat within MHPA along the San Diego River. Indirect effects on nesting least Bell's vireo nesting would be a potentially significant effect.

The proposed project would not directly impact nesting habitat for any of the sensitive and/or MSCP-covered bird species observed within the BSA: Cooper's hawk, least Bell's vireo, vermilion flycatcher, western bluebird, yellow warbler, or yellow-breasted chat. Construction of the project could have indirect noise effects on these species nesting in adjacent habitat. Indirect effects on the nesting of these species would be a potentially significant effect.

MSCP San Diego Subarea Plan covered animals observed within the BSA were Cooper's hawk, western bluebird, and southern mule deer (*Odocoileus hemionus* ssp. *fuliginatus*).

Diegan coastal sage scrub found within the project footprint has low abundance and diversity of nectar resources; however, although the project site does not have high potential to support nesting or foraging Crotch's bumble bee, if the species is present underground during ground disturbance, impacts on a Crotch's bumble bee nest would be potentially significant. Similarly, although the project footprint only has low potential to support western spadefoot, impacts to possible breeding and aestivating spadefoot would be potentially significant.

City of Santee

The project would have permanent direct impacts of up to 0.77 acres of occupied least Bell's vireo habitat within designated critical habitat within Santee, including 0.43 acres of southern cottonwood-willow riparian forest (including disturbed) and 0.34 acres of mule fat scrub-disturbed. Loss of 0.77 acres of occupied habitat would be a potentially significant impact on least Bell's vireo.

The project would have permanent direct impacts on up to 0.80 acres of southern cottonwood-willow riparian forest (including disturbed) potentially suitable as breeding habitat for yellow warbler, yellow-breasted chat, western bluebird, Cooper's hawk, and white-tailed kite; suitable as habitat for two-striped garter snake; and suitable as habitat for mule deer (Table 4-3). The loss of 0.80 acres of habitat for these species would be a potentially significant impact on special-status species.

Impacts on native or naturalized vegetation during the breeding season have the potential to kill nesting birds or their eggs or young, including special-status birds such as least Bell's vireo, yellow warbler, yellow-breasted chat, western bluebird, Cooper's hawk, and white-tailed kite. Any project related activities that result in the death of nesting birds could be a violation of state and federal laws and would be a significant impact under CEQA.

Construction noise and activity associated with the regrading and redesign of the golf course and construction of the golf resort, if they occur during the breeding season, have potential to disrupt the breeding activities of double-crested cormorants. Disruption or loss of breeding at this rookery would be a significant impact on a wildlife nursery site.

Indirect, temporary impacts on special-status animal species could occur during project construction due to construction-related noise from such sources as clearing, grubbing, and grading. These indirect, temporary impacts from construction noise could be potentially significant, particularly if they occur during the breeding season of special-status avian species.

The proposed project would increase human activity in the vicinity of sensitive habitat, including occupied vireo habitat, on the western and northeastern sides of the project as the existing golf course land use adjacent to the San Diego River habitat is converted to residential and commercial land uses. Project design features such as fences and retaining walls would help reduce potential indirect impacts from human activity. However, additional measures such as signage would be needed to reduce indirect human activity impacts to a less than significant level.

Animals associated with residential development can have a negative effect on wildlife. Free-ranging cats and off-leash dogs can prey on wildlife and have potential to spread zoonotic diseases to wildlife and other domestic animals. Because least Bell's vireos normally construct nests at the low height of approximately 3 feet, there is the potential for increased predation of adult and nestling least Bell's vireo by an increased abundance of free-range cats. Increased predation of special-status bird species would represent a potentially significant impact. Homeowner education shall be required to reduce the potential increase of domestic pets generated from the due to the proposed residential homes adjacent to existing open space.

Diegan coastal sage scrub and disturbed habitat found within the project footprint have low abundance and diversity of nectar resources; however, although the project site does not have high potential to support nesting or foraging Crotch's bumble bee, if the species is present underground during ground disturbance, impacts on a Crotch's bumble bee nest would be potentially significant. Similarly, although the project footprint only has low potential to support western spadefoot, impacts to possible breeding and aestivating spadefoots would be potentially significant.

Mitigation Summary

Vegetation

City of San Diego

Impacts on 0.19 acres of Diegan coastal sage scrub – disturbed within the City of San Diego would be mitigated through contribution into City of San Diego Habitat Acquisition Fund, as described in MM-BIO-1. Mitigation consistent with the Upland Mitigation Ratios in the City of San Diego Biological Guidelines would reduce impacts to below a level of significance.

City of Santee

MM-BIO-2 through MM-BIO-10 have been identified to avoid impacts on sensitive vegetation communities to the extent feasible and compensate for sensitive vegetation community impacts that cannot feasibly be avoided. Implementation of these measures would ensure that permanent and

temporary impacts on sensitive vegetation communities within the City of Santee are mitigated to below a level of significance.

MM-BIO-2 provides details on the compensatory mitigation requirement for permanent impacts within City of Santee on sensitive upland vegetation communities.

MM-BIO-3 provides details on the compensatory mitigation requirement for temporary impacts within City of Santee on sensitive riparian and wetland vegetation communities.

MM-BIO-4 provides details on the mitigation requirement for temporary dewatering impacts within City of Santee on sensitive riparian and wetland vegetation communities.

MM-BIO-5 requires a Habitat Mitigation and Monitoring Plan (HMMP) to provide details on the restoration and enhancement of sensitive riparian and wetland vegetation communities within the City of Santee.

MM-BIO-6 requires a Resource Management Plan (RMP) to provide for the long-term management of the mitigation sites.

MM-BIO-7 requires a qualified biologist to provide construction monitoring.

MM-BIO-8 requires the delineation of Environmentally Sensitive Areas.

MM-BIO-9 ensures that the project would obtain a Stormwater Pollution Prevention Plan to control erosion, sedimentation, and preserve water quality.

MM-BIO-10 requires speed limits during construction to reduce generation of dust.

Wetlands

USACE/RWQCB and California Department of Fish and Wildlife

MM-BIO-11 requires that the project obtain wetland permits and authorizations from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife prior to impacts. This would ensure that the project is in compliance with state and federal water laws and that there would be no significant impact to state or federal wetlands.

Special-Status Wildlife

City of San Diego

Minimization of indirect noise impacts on sensitive riparian birds generally (MM-BIO-12) and least Bell's vireo specifically (MM-BIO-14) would ensure that the construction of the project does not have significant indirect effect on special-status bird species. Pre-construction surveys for Crotch's bumble bee (MM-BIO-15), western spadefoot (MM-BIO-16), and western burrowing owl (MM-BIO-17) would ensure that any effects on other special-status animal species would be less than significant with mitigation.

City of Santee

Mitigation for permanent and temporary impacts on habitat for special-status animal species (MM-BIO-2 through MM-BIO-5), minimization of indirect noise impacts on riparian birds (MM-BIO-12), avoidance of disturbance of vegetation during bird nesting season (MM-BIO-13), pre-construction surveys for Crotch's bumble bee (MM-BIO-15), western spadefoot (MM-BIO-16), and western

burrowing owl (MM-BIO-17) would ensure that any effects on other special-status animal species would be less than significant with mitigation.

Potentially significant direct and indirect impacts on habitat occupied by least Bell's vireo (Impact BIO-5) would be minimized through implementation of MM-BIO-7 through MM-BIO-10, and mitigated through implementation of MM-BIO-14. The proposed project would not result in significant unmitigated impacts on sensitive biological resources under the California Environmental Quality Act.

1.1 Purpose of Study

The purpose of this Biological Survey Report is to (1) describe the existing conditions of biological resources within the Carlton Oaks Country Club and Resort Project (project) site in terms of vegetation, jurisdictional aquatic resources, flora, wildlife, and wildlife habitats; (2) analyze the proposed project's potential impacts on biological resources and explain their significance in view of federal, state, and local laws and policies; and (3) recommend mitigation measures for potential impacts on sensitive biological resources, if necessary. Mitigation recommendations would follow federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA), the draft Santee Subarea Plan of the San Diego Multiple Species Conservation Program (MSCP) (City of Santee 2018), and the City of San Diego MSCP Subarea Plan (City of San Diego 1997).

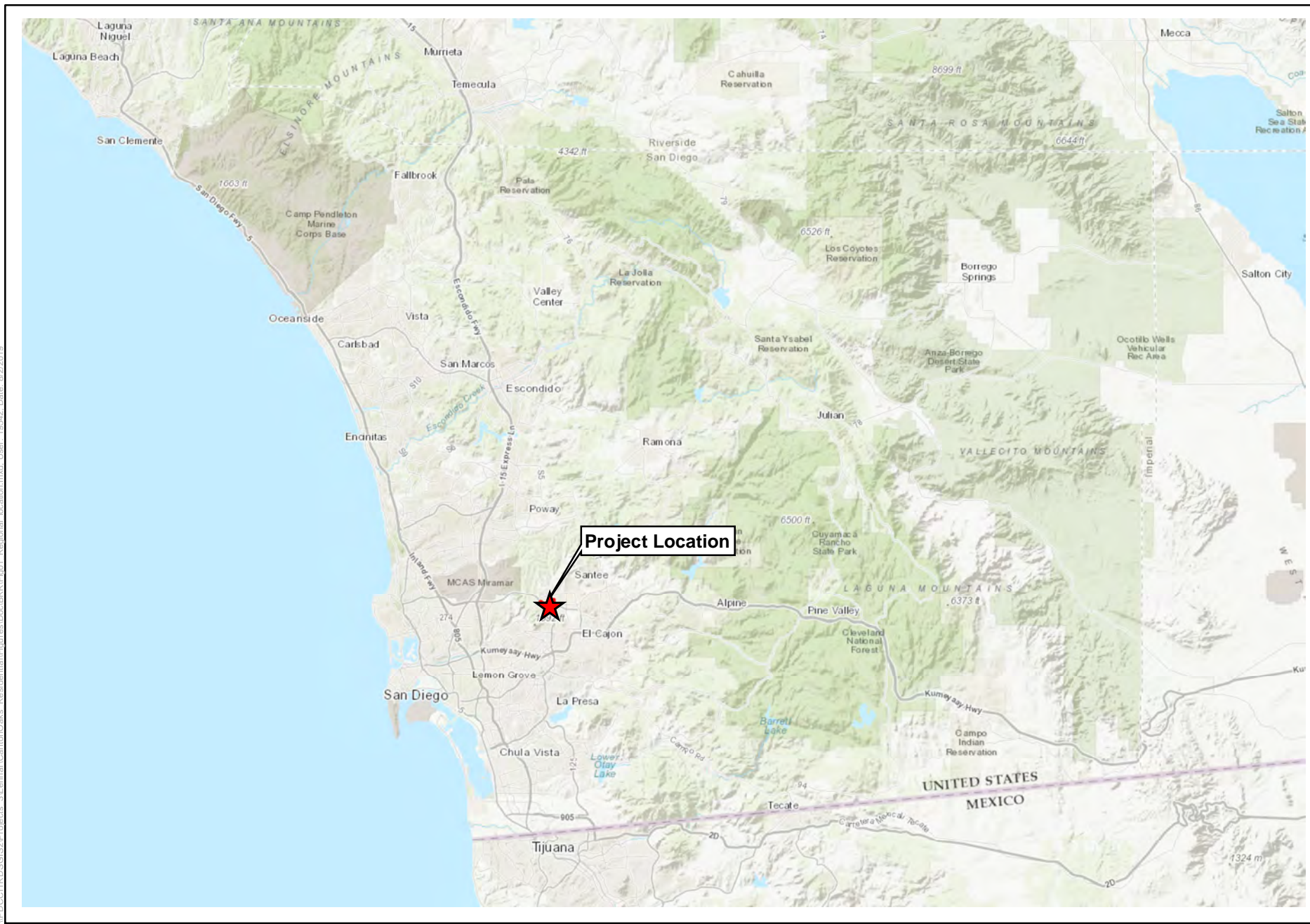
1.2 Project Location

The project site is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway. The proposed project consists of approximately 165 acres of land located within the City of Santee and the City of San Diego (Figure 1). The proposed project is adjacent to State Route 52 and Carlton Oaks Drive. The project site is in Township 15S, Range 1W of the U.S. Geological Survey (USGS) "La Mesa" 7.5-minute quadrangle map (USGS 2018). The proposed project is located approximately at 32.839713°N, 117.010112 °W (Figure 2).

The biological study area (BSA) includes a 100-foot buffer around the approximately 165-acre project site and all off-site improvement areas (Figure 3). The project site includes the proposed hardscape development as well as the golf course redesign and avoided wetlands (Figure 3). The BSA is bound by residential housing to the north and by Carlton Oaks Drive on the northeast boundary. The 190-acre Santee Lakes Recreation Preserve is situated across Carlton Oaks Drive, consisting of several fish-stocked lakes, campgrounds, and semi-natural areas. Lands within the City of San Diego are covered by the MSCP San Diego Subarea Plan (City of San Diego 1997). The proposed project will not utilize the Santee MSCP Subarea Plan for Endangered Species Act (ESA) coverage.

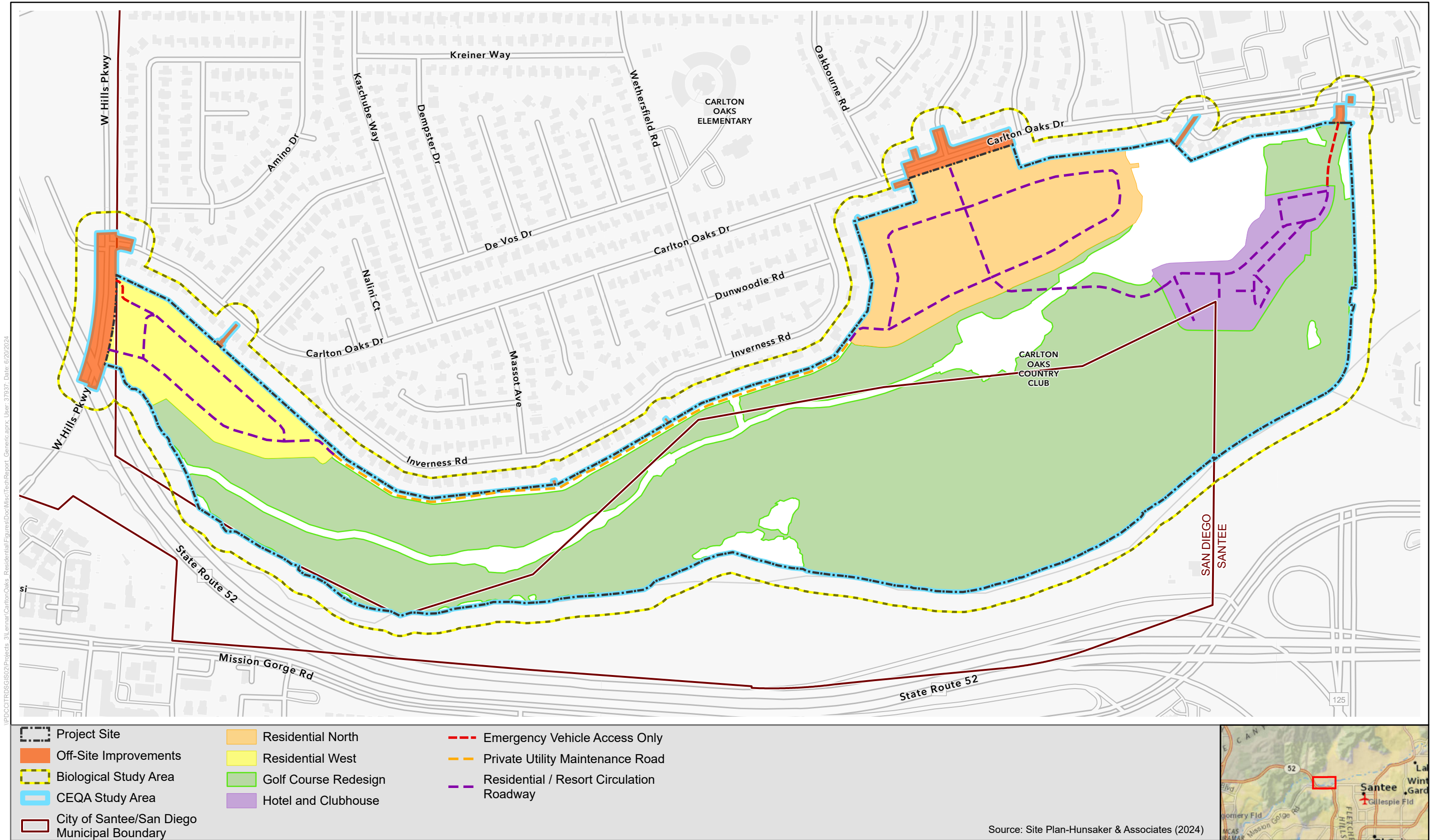
1.3 Existing Setting and Land Use

The project site is located along the boundary between the City of Santee and the City of San Diego, situated north of State Route 52 (SR-52) where it traverses in an east-west direction. The project site is designated as Park/Open Space (P/OS) and Planned Development (PD) by the City of Santee General Plan. The area designated as Planned Development is in the northern portion of the project site, bordering the existing residential land uses. The Park/Open Space designation covers the rest of the golf course that occurs within the City of Santee immediately to the south of the Planned Development area. Per the City of San Diego General Plan, the southern portion of the project site is designated as Open Space.



0 6 12
Miles
1 in = 12 miles

Figure 1
Regional Location



The project site is currently operating as the Carlton Oaks Country Club with an existing golf course, golf driving range, clubhouse, and hotel. The golf course covers most of the project site, with the clubhouse and related structures located in the north-central portion of the project site. The golf course encompasses 145 acres, 18 holes, and has a total of 132 acres of turf irrigation with a block-type irrigation system. The golf course includes two man-made water features not associated with San Diego River (North Channel). The golf course was established in 1958 and renovated in 1989.

The developed portion of the project site currently consists of a clubhouse with a restaurant, bar, private rooms, outdoor pool, and pro shop. A 52-room hotel is located east of the clubhouse. There are also three auxiliary buildings on the project site, used for storage of golf carts and maintenance equipment. Two are in the vicinity of the clubhouse and hotel in the northern portion of the project site and one auxiliary building is in the eastern portion of the project site.

The surrounding land uses consist of a mix of residential and commercial development, transportation corridors, and open space, which contains undeveloped areas within the upstream and downstream segments of the San Diego River. The northern boundary of the project site is bound by single-family homes and condominiums. The southern and eastern boundaries of the existing golf course abut the San Diego River (South Channel) and Forester Creek. The southern boundary of the site consists of a 10- to 12-foot-tall berm that separates the river channel from the golf course and is occasionally used as an informal recreation path. The majority of the berm is outside the project area and there is a small portion of the berm that straddles the project boundary in the City of Santee. No alterations are being made to the berm and the berm will remain in place. To the west of the project site is West Hills Parkway and SR-52 with open space and general commercial west of these transportation corridors. In 2023, as part of the existing golf course's continued operations, soil extracted from another project was transported to the driving range location of the project site to create a berm to aid in golf ball retention. In total, approximately 1,000 cubic yards were moved to the existing driving range during a year-long period. A small bulldozer was used to spread the soil on the site's natural surface contours to create a berm along the outer edge of the driving range, adjacent to Sycamore Canyon Creek. No subsurface disturbance occurred as a result of the soil deposition.

Current activity at this location includes maintenance and ball catching activity. The driving range is vegetated with lawn grass; no native vegetation exists within the driving range. A 6- to 8-foot-tall chain link fence exists along the edge of the driving range, separating it from the vegetation adjacent to Sycamore Canyon Creek.

On August 19, 2024, the City of Santee issued a Notice of Violation to the landowner of the project site. The Notice of Violation identified the transportation of the dirt to the driving range without the required permit as a violation of the City of Santee's Municipal Code. The applicant was directed to remove the transported dirt from the driving range and restore the area to preconstruction conditions to the satisfaction of the City Engineer. The appropriate regulatory agencies were also informed of the potential violation and requested that any restoration be completed prior to the raptor season of 2025.

By the end of 2024, the soil and berm were removed, and the soil was transported off site. The driving range at the project site was returned to its existing topographic contours prior to the soil deposition. The remediation work involved removing the soil and berm from the driving range to restore the site to its original condition. The 1,000 CY of soil was transported off site to a residential construction site located just north of Robertson Street and west of Day Street in the unincorporated

town of Ramona approximately 25 miles away. Equipment used for this effort involved a 966 loader, a D6 dozer, and a water equipment truck for dust control.

Although the transportation of the dirt to the driving range and the related remedial measures that were taken are not components of the currently proposed project, the City of Santee has requested that the EIR include information regarding any biological issues that may have resulted from the creation of the berm and the later removal of the soil, which is more particularly described in Appendix N.

Construction of the berm with a small dozer did not affect sensitive vegetation communities, did not appear to result in sedimentation into the riparian area, and is very unlikely to have had significant noise effects on adjacent least Bell's vireo during the nesting season. Nor were there any effects from the soil removal activities. While no raptor nests are known within Carlton Oaks golf course or near to the driving range, the soil removal was completed prior to February 1, 2025, which is the beginning of the raptor nesting season, avoiding potential impacts on nesting raptor. These conclusions are discussed in Appendix N.

1.4 Project Description

Carlton Oaks Golf Course and Lennar Homes, as joint project proponents, are proposing to redevelop the existing Carlton Oaks Country Club into a resort with residential accessory uses. The proposed Carlton Oaks Country Club and Resort Project (project) would include the following components: (1) demolition of the existing Carlton Oaks Golf Course; (2) redesign of the golf course; (3) reconstruction of the clubhouse with a new pro shop, practice area, and learning center structure; (4) construction of a hotel and associated cottages; (5) construction of residential accessory uses consisting of two residential neighborhoods with open space areas; and (6) construction of related on-site infrastructure. The project site is approximately 165 acres, and approximately 3.5 acres would be associated with off-site improvement areas located in both the City of San Diego and City of Santee (off-site improvement areas). The off-site improvement areas and the project site make up the CEQA Study Area and totals approximately 169 acres (Figure 3).

Residential homes are also planned as an accessory use to the golf course and the Carlton Oaks Country Club. The residential components of the would be constructed in the western and northern portions of the project site (Residential West and Residential North, respectively). Certain components of the proposed project, including the pro shop, cart barn, bridge, and northeastern emergency vehicle access road, would be constructed first and serve as an interim clubhouse. This would allow the golf course to be operational while the rest of the proposed project is being constructed.

Additionally trail segments are proposed to be constructed on the project site to provide connections to planned and existing trails. There is an alternative segment for a portion of the San Diego River Trail that is proposed for City of Santee's consideration.

1.4.1 Golf Course Redesign

The proposed project would involve redesign of the existing 145-acre, 18-hole golf course to accommodate the proposed residential neighborhoods and provide an improved experience for the users of the Carlton Oaks Country Club and Resort. The redesigned 18-hole golf course would cover

approximately 104 acres (approximately 64 acres within the City of San Diego and 40 acres within the City of Santee). To provide a more engaging golfing experience, the length of the golf course would be reduced from approximately 7,300 yards to 6,450 yards.

Under existing conditions, the golf course has approximately 132 acres of turf that is irrigated using an inefficient 30-year-old block-type irrigation system. The new course design would have approximately 66 acres of irrigated turf (i.e., a 50% reduction) that would use a modern, efficient irrigation system with individual head controls and native plantings, resulting in a decrease in water usage.

Existing manufactured ponds on the golf course would be reshaped to update existing drainage patterns to improve the drainage flow and reduce the accumulation of surface water on the site during rain events. Additionally, the stream course would be widened and enhanced in some areas to increase the functionality of the river, and surrounding vegetation would be restored. Out-of-play areas around the golf course would be planted with native grasses and smaller shrubs that require little or no maintenance. A number of riparian areas within the project site would provide an environment for native birds, small animals, and aquatic plant and animal species. These areas would be avoided and retained in their current condition. The existing maintenance facility in the eastern portion of the project site would also remain in its current location.

As amenities to the golf course, a 1,200-square-foot pro shop, 6,012-square-foot cart barn, 1,258-square-foot storage area, and a golf cart waiting area would be developed on the eastern end of the golf course, northeast of the golf resort. Golf carts would enter the golf course from an access ramp east of the cart barn/pro shop. In addition, a 1,258-square-foot golf learning center would be developed northeast of the pro shop. A shared surface parking lot would provide 293 parking spaces for users of the golf course, clubhouse, and hotel.

1.4.2 Resort Facility

The clubhouse and hotel would consist of cottage-style hotel units, hotel rooms, a restaurant, event space, and other amenities. The outdoor space of the clubhouse would consist of an outdoor swimming pool and deck area, a patio, and a courtyard.

1.4.3 Residential Component

The proposed residential development would be clustered into two areas: Residential West (multifamily detached homes) and Residential North (multifamily detached homes and six single-family, single-story lots). All residential development would be accessible through privately maintained internal streets (collectively referred to as *residential development*).

1.4.3.1 Residential West

- 86 detached multifamily residential units (with a density of 9 units per acre).
- Approximately 0.25 acres of designated common usable open space.
- Flowering accent trees, community shade trees, shrubs, and groundcovers for private yards, as well as shrubs and groundcovers for public green space.

Also, a Padre Dam Municipal Water District public water main would be extended from West Hills Parkway into Residential West, crossing the proposed landscape easement.

1.4.3.2 Residential North

- 150 detached multifamily residential units (with a density of 8.1 units per acre).
- Six single-family lots fronting Carlton Oaks Drive which will allow for single-story homes on minimum 6,000-square-foot lots. Five of the single-family homes within the Planned Development zone will have a minimum of 6,000-square-foot lots and one single-family home located within the R-2 zone will meet the requirements for the underlying R-2 zone.
- One existing home located at 9225 Inwood Drive has also been included within the project site to allow for minor driveway modifications. No changes to this structure are proposed.
- Approximately 0.49 acres of designated common usable open space.
- Flowering accent trees, community shade trees, accent trees, shrubs and ground cover for slopes, private yards, and public green space.
- Potable water would be connected to an existing main line in Carlton Oaks Drive and extended into the Residential North area of the project site.

1.4.4 Landscaping

There would be a 0.439-acre landscape easement between West Hills Parkway and the western end of the Residential West development area, within the project boundary. The proposed landscaping would require an easement from the City of San Diego; the easement area falls within the jurisdiction of both City of San Diego and City of Santee.

1.4.5 Access Points

Access to Residential West would include a private driveway off the east side of West Hills Parkway that would require access easements across two parcels owned by the City of San Diego: these parcels cross both City of San Diego and City of Santee jurisdictions. The proposed easements would allow private and emergency access onto the proposed subdivision.

Residential North and the resort would be accessed from Carlton Oaks Drive at the intersection of Burning Tree Way, approximately 200 feet west of the existing hotel access road (Inwood Drive). Inwood Drive would be closed and replaced with curb and sidewalk. Additionally, six existing driveway aprons along the project frontage would be closed and replaced with curb and landscaping. A private utility maintenance road would be provided between Residential North and Residential West. Access to the golf course and resort would be provided by a private drive through Residential North from Carlton Oaks Drive southerly via a new bridge across the San Diego River (North Channel). The bridge is 265 feet long by 36 feet wide. Under-bridge deck elevations range from 321 to 323 feet above mean sea level, and the ground level underneath ranges from 316 to 309 feet above mean sea level. At least 90% of the under-bridge clearance is 8 feet or greater, with at least 30% equaling 12 feet or greater. The under-bridge area is expected to provide at least 238 linear feet of 8-foot clearance underneath during normal conditions, except when 100-year or greater flood events occur. While the new bridge is under construction, a temporary rail car crossing would be placed at an existing cart path crossing west of the new bridge to provide vehicular access to the golf course. The temporary rail car crossing would be replaced with a permanent cart path crossing when construction is complete.

Also, a 26-foot-wide private emergency access road would be provided through the existing Vista del Verde condominiums located in the northeastern corner of the project site. This emergency access would comply with the City of Santee Fire Department requirements and would be for the proposed project only and would not be open to the public. A new fence with an emergency access gate will also be erected between buildings of the existing adjacent condominium complexes. A private emergency access road would be provided in the northern corner of Residential West from West Hills Parkway.

1.4.6 Project Trail Segments

A multipurpose public trail will be provided on the property on the north side of the San Diego River; it will link with existing and planned trails east and west of the site (Project Trail Segment). A portion of the Project Trail Segment on the east side of the project site will begin at the entrance to Residential North at Carlton Oaks Drive, traverse through the resort and along the southeastern border of the project, and end slightly west of the jurisdictional line between the City of Santee and the City of San Diego. This portion of the trail will link to the existing Mast Park West Trail as well as the future planned trail known as the Carlton Oaks Golf Course Segment.

A portion of the Project Trail Segment on the west side of the project site will begin at the Santee jurisdictional line and end at the property line (Station 38+60). This portion of the trail will link to the future planned trail known as the Carlton Oaks Golf Course Segment.

Along the Residential West boundary, a graded bench (located within the Carlton Oaks Golf Course Segment) would also be provided within the easement areas that will be granted to the applicant by the City of San Diego as a part of this project.

In addition to the proposed trail alignment currently proposed through Residential North and the County Club and Resort Area, a supplemental trail offer of dedication is shown on the applicant's map should the City of Santee request this supplemental trail alignment. The supplemental trail offer of dedication starts from an area east of the Country Club and Resort parking lot to the property line of the Vista del Verde community. If the City of Santee were to request this supplemental segment, the applicant will agree to dedicate the trail alignment for potential future construction by others, at a later date, if the City of Santee determines that it desires to build this trail in the future.

1.4.7 100-Year Floodway Improvements

The project site is located within the regulatory limits of the San Diego River (floodplain and floodway) and receives runoff from Sycamore Canyon Creek channel, San Diego River (North Channel) as well as several storm drain outfalls from the existing developments along Carlton Oaks Drive and Mast Boulevard roadway corridors. In addition, runoff from Forester Creek joins the San Diego River (South Channel) along the southeasterly limits of the property.

The proposed grading for the clubhouse, hotel, and golf course would occur within the regulatory floodway. Development associated with the proposed project would include elevating the grade of the clubhouse and hotel development area above the floodplain. The grading for portions of the residential development areas would be within the existing floodplain limits. A small portion of the Residential North development encroaches into the existing floodplain. A Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) would be processed through the Federal

Emergency Management Agency (FEMA) to revise the flood mapping at the project site due to the proposed alteration of the floodway. A CLOMR would need to be approved by FEMA, the City of Santee, and the City of San Diego prior to the issuance of a grading permit for the project. The CLOMR would remove proposed structures from the floodplain and floodway and demonstrate that, if built as proposed, the project would meet minimum local and federal regulations.

1.4.8 Stockpiling Sites

The project will require the import of soil to raise the proposed resort, hotel, and residential development out of the FEMA mapped floodplain. This import of soil will most likely take place over an extended period of time prior to the start of grading.

One temporary disposal site for the stockpiling of soil is proposed. The disposal site will be located on the eastern side of the project site within the current golf course driving range and would accommodate the import of approximately 279,020 cubic yards. The eastern import access will be from Inwood Drive and be provided with temporary best management practices (BMPs) for sediment and erosion control.

To comply with state and federal water quality regulations, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared during the Final Engineering Phase for the project to design and implement the required and effective temporary sediment and erosion control BMPs. This will be in compliance with the 2022 Construction Stormwater General Permit, Order 2022-0057-DWQ, City of Santee requirements as outlined in the City of Santee's Guidelines for Surface Water Pollution Prevention dated June 2015, the City of Santee Jurisdictional Urban Runoff Management Program (JRMP) dated July 2021, the City of San Diego Stormwater Standards dated May 2021, and the City of San Diego Jurisdictional Runoff Management Plan (JRMP) dated January 2024. The site will not be disturbed prior to having a SWPPP with an approved Notice of Intent and an effective waste discharge identification number.

1.4.9 Off-Site Improvements

The following off-site improvements would be required as part of the implementation of the proposed project:

1. Emergency Vehicle Access: The project will include the construction of a 26-foot-wide emergency vehicle access roadway, from the Vista del Verde community south to the golf course property and the developed portion of the resort. One parking spot on the Vista del Verde property may be removed but will be relocated within that property. The project also includes installation of a motorized gate and replacement of the existing chain link fence with a steel tubular fence on the boundary of the golf course property.
2. West Hills Parkway: West Hills Parkway will be widened within the existing right-of-way from Carlton Oaks Drive to approximately 700 feet south to the existing bridge to provide a dedicated left-turn lane into Residential West. New striping will include a striped median and increased width for bike lanes. Trees are proposed on both sides of West Hills Parkway to provide source control of stormwater, limit stormwater transport and pollutant conveyance to the collection system, restore predevelopment hydrology to the extent possible, and provide environmentally enhanced roads. This work would be located within the City of San Diego's jurisdiction and therefore would follow their standards.

3. Extension of a Padre Dam Municipal Water District (PDMWD) Public Water Main: A PDMWD water main would be extended from Carlton Oaks Drive south along West Hills Parkway and into Residential West to provide a connection to the proposed private water system.
4. Access to Residential North and the Resort Area: Access to these areas would be provided by Carlton Oaks Drive at the intersection with Burning Tree Way. This access point is approximately 200 feet west of the existing hotel access road (Inwood Drive). Inwood Drive will be closed and replaced with curb and sidewalk. Additionally, six existing driveway aprons along the project frontage will be closed and replaced with curb and landscaping along with other miscellaneous frontage improvements such as overhead power undergrounding and landscaping. Overhead power undergrounding would extend north of Carlton Oaks Drive. Potable and recycled water would be connected to existing main lines in Carlton Oaks Drive and extended into the project.
5. Drainage Improvements: Existing drainage pipes discharge to the golf course at five locations along the north subdivision boundary. All improvements will be constructed in a manner that will maintain the existing flow and drainage patterns.
 - a) *An existing 42-inch storm drain discharges to the site from a headwall located approximately 15 feet off site, within a public easement (City of Santee) on an existing residential lot (Lot 17 of Map 4402).* The off-site flows will be picked up on site by proposed storm drain improvements and discharged into the San Diego River (North Channel).
 - b) *An existing 27-inch storm drain extends onto the project site from an existing residential lot (Lot 14 of Map 5417).* This pipe will be extended under the proposed access road to a new headwall and discharge into the San Diego River (North Channel).
 - c) *An existing 18-inch storm drain discharges to the site from a headwall located approximately 15 feet off site within a public easement (City of Santee) on an existing residential lot (Lot 230 of Map 6973).* The off-site flows will be picked up on site by proposed storm drain improvements and discharged onto the golf course.
 - d) *An existing 47" x 71" storm drain discharges to the site from a headwall located approximately 20 feet off site within a public easement (City of Santee) on an existing residential lot (Lot 239 of Map 6973).* The off-site flows will be picked up on site by proposed storm drain improvements and discharged onto the golf course.
 - e) *An existing 72-inch diameter storm drainpipe discharges to the site from the headwall located immediately off site at the north property line of Residential West.* The existing headwall includes a large concrete energy dissipator and concrete channel. These storm drain facilities are located off site on existing residential lots (Lots 679 and 680 of Map 7295) and within an existing public easement (City of Santee). The off-site flows will be picked up on site by proposed storm drain improvements and discharged onto the golf course.
6. Sewer Maintenance Hole Improvements: Three existing sewer maintenance holes are located off site within a PDMWD easement within the Vista del Verde condominium property. The need for engineered sewer manhole liners will be determined in the project design phase. All work will be limited to the public easement area.

1.5 Regulatory Setting

1.5.1 Federal Environmental Regulations

1.5.1.1 Federal Endangered Species Act

The federal Endangered Species Act (ESA) was enacted in 1973 to provide protection to threatened and endangered species and their associated ecosystems. “Take” of a listed species is prohibited except when authorization has been granted through a permit under Section 4(d), 7, or 10(a) of the act. *Take* is defined as to harass, harm, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of these activities without a permit. The U.S. Supreme Court ruled in 1995 that the term *harm* includes destruction or modification of habitat. ESA Sections 7 and 10 may authorize *incidental take* for an otherwise lawful activity (e.g., a development project), if it is determined that the activity would not jeopardize survival or recovery of the species. ESA Section 7 applies to projects where a federally listed species is present, and there is a federal nexus, such as where a federal CWA Section 404 permit (e.g., impacts on waters of the United States) is required. ESA Section 10 applies when a federally listed species is present, but no federal nexus is present

1.5.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918. Its purpose is to prohibit the killing or transport of covered native migratory birds—or any part, nest, or egg of any such bird—unless allowed by another regulation adopted in accordance with the MBTA. There is a list of species that are protected by this act, which includes almost all native non-game bird species.

1.5.1.3 Bald and Golden Eagle Protection Act

When first enacted in 1940, the Bald and Golden Eagle Protection Act prohibited the take, transport, or sale of bald eagles (*Haliaeetus leucocephalus*), their eggs, or any part of the eagle. The act was amended in 1962 to extend prohibitions to the golden eagle (*Aquila chrysaetos*). *Take* is defined by the act as being to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.”

1.5.1.4 Clean Water Act

In 1948, Congress first passed the Federal Water Pollution Control Act. This act was amended in 1972 and became known as the Clean Water Act (CWA). The CWA regulates the discharge of pollutants into waters of the U.S. Under Section 404, permits need to be obtained from the U.S. Army Corps of Engineers (USACE) for discharge of dredge or fill material into waters of the U.S. Under Section 401 of the CWA, water quality certification from the Regional Water Quality Control Board (RWQCB) needs to be obtained if there are to be any impacts on waters of the U.S.

1.5.2 State Environmental Regulations

1.5.2.1 California Environmental Quality Act

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. CEQA does not specifically define what constitutes an “adverse effect” on a biological resource. Instead, lead agencies are charged with determining what

specifically should be considered an impact. CEQA provides a checklist regarding what types of biological resources should be considered in this process.

1.5.2.2 California Department of Fish and Wildlife – Species of Special Concern

The California Department of Wildlife (CDFW) maintains a list of vertebrate animal species considered of “special concern” because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. A Species of Special Concern is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the state or, in the case of birds, is in its primary seasonal or breeding role
- Is listed as threatened or endangered federally, but not by the state
- Meets the state definition of threatened or endangered, but has not formally been listed
- Is experiencing, or formerly experienced, serious noncyclical population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for threatened or endangered status by the state
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for threatened or endangered status by the state

Impacts to Species of Special Concern are typically evaluated and mitigated within the context of an Environmental Impact Report or other document prepared pursuant to CEQA.

1.5.2.3 California Fish and Game Code Sections 3503, 3503.5, 3511, 3513

California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA, except as provided by rules and regulations adopted by the United States Secretary of the Interior under the MBTA. Assembly Bill 454 (California Migratory Bird Protection Act) amended Section 3513 to prohibit take or possession of any migratory non-game bird as designated in the MBTA prior to 2017, except as provided by rules and regulations adopted by the United States Secretary of the Interior under the MBTA before January 1, 2017, or subsequent rules or regulations adopted pursuant to the MBTA, unless those rules or regulations are inconsistent with California Fish and Game Code. Assembly Bill 454 became operative on January 1, 2020, and became inoperative on January 20, 2025, at which time the original provisions of Section 3513 were reenacted.

1.5.2.4 California Fish and Game Code Section 4150

California Fish and Game Code Section 4150 states that a mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a non-game mammal. A non-game mammal may not be taken or possessed under this code. All bat species

occurring naturally in California are considered non-game mammals and are therefore prohibited from take, as stated in California Fish and Game Code Section 4150.

1.5.2.5 Lake and Streambed Alteration Program

The Lake and Streambed Alteration Program is administered by the California Department of Fish and Wildlife (CDFW) and is found in Section 1600 et seq. of the FGC. The regulations define that an entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river or stream, or lake.. The CDFW must be notified if a project would affect lake or streambed resources.

1.5.2.6 California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the “take” of any species that the California Fish and Game Commission determines to be a threatened or endangered species. CESA is found in FGC Sections 2050–2116. CESA is administered by CDFW, and incidental take of listed species can be approved by the CDFW. *Take* is defined by CESA as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Notably, this differs from the federal Endangered Species Act definition.

1.5.2.7 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the California Fish and Game Commission to designate plants as “rare” or “endangered.” There are 64 species of plants designated and protected as rare under the NPPA. Species designated as endangered are regulated under provisions of CESA. The NPPA prohibits take of endangered or rare native plants, but it includes some exceptions for agricultural and nursery operations, emergencies, and—after properly notifying CDFW—certain vegetation removal. It is primarily codified in FGC Section 1900 et seq.

1.5.2.8 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is the California equivalent of the CWA. It provides for statewide coordination of water quality regulations through the establishment of the California State Water Resources Control Board and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional/local level.

1.5.2.9 Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFW is the principal state agency implementing the NCCP Program. NCCP plans developed in accordance with this act provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. The San Diego MSCP is an NCCP and is discussed in Section 1.5.3 below.

1.5.2.10 California Coastal Act

The California Coastal Act of 1976 established the California Coastal Commission, which regulates the use of land and water in the coastal zone. The coastal zone extends up to 5 miles inland from the

coast. The BSA is outside of the coastal zone and is therefore not subject to the jurisdiction of the California Coastal Commission.

1.5.3 Local Environmental Regulations

1.5.3.1 San Diego Multiple Species Conservation Program

The San Diego MSCP is a long-term regional conservation plan designed to establish a connected preserve system that protects the sensitive species and habitats within its boundaries. The MSCP covers 582,243 acres over 12 jurisdictions. The Final MSCP Subregional Plan was approved in March 1998 (MSCP Plan) (City of San Diego 1998). The combination of the MSCP Plan and the local jurisdiction's subarea plans serve as a multiple species Habitat Conservation Plan (HCP) pursuant to federal Endangered Species Act Section 10(a)(1)(B) and a NCCP pursuant to the California NCCP Act of 1991 and CESA. The participating jurisdictions and special districts are submitting plans to the U.S. Fish and Wildlife Service (USFWS) and CDFW in support of applications of permits and management authorizations to impact listed species and other species of concern. The conservation and management responsibilities, guarantees of implementation, and corresponding authorizations for all parties are contained in Implementing Agreements between the local jurisdictions and the Wildlife Agencies (USFWS and CDFW).

Local jurisdictions implement their respective portions of the MSCP Plan through subarea plans, which describe specific implementing mechanisms for the MSCP. The City of San Diego has an approved subarea plan under the MSCP (City of San Diego 1997). The City of Santee is in the process of preparing a subarea plan and provided a draft to the wildlife agencies in 2018 (City of Santee 2018).

1.5.3.2 City of Santee

General Plan

The Conservation Element of the City of Santee's General Plan contains policies related to protection and preservation of sensitive biological resources (City of Santee 2003). The following objectives and policies are relevant to the proposed project:

- Objective 1.0: Protect areas of unique topography or environmental significance to the greatest extent possible.
- Objective 2.0: Protect floodways to reduce flood hazards, protect biological resources and preserve the aesthetic quality along water corridors.
- Objective 7.0: Preserve significant biological resources.
 - *Policy 7.1:* The City shall encourage the preservation and enhancement of significant biological resources in areas designated as permanent open space.
 - *Policy 7.2:* The City shall require that all development proposals provide appropriate mitigation for identified significant biological resources including selective preservation, sensitive site planning techniques and in-kind mitigation for identified impacts.
 - *Policy 7.3:* The City shall require that, for all development proposals involving the setting aside of land for permanent open space either on-site or off-site, provisions are in place to ensure the long term management of the open space and biological resources.

- *Policy 7.4:* The City shall complete a Multiple Species Conservation Program Subarea plan that conserves a minimum of 2,600 acres in the City as permanent open space for preservation of habitats and species.
- Objective 10.0: Preserve significant natural resources, such as mineral deposits, biological resources, watercourses, groundwater, hills, canyons, and major rock outcroppings, as part of a Citywide open space system.
 - *Policy 10.1:* The City should encourage the conservation of rare or unique plants and wildlife by identifying such resources through the environmental review process and by using open space preservation, where appropriate, to preserve the resources as a condition of a project approval, consistent with the City's future Multiple Species Conservation Program Subarea Plan.

Municipal Code

The City of Santee Municipal Code includes the following provisions that are relevant to the proposed project:

Title 8 – Streets, Sidewalks and Public Property

Chapter 8.06 – Urban Forestry establishes a reasonable amount of tree cover on public and private lands in the City resulting in trees that contribute to a quality environment. Specific standards for planting, maintenance, and removal are outlined under this chapter.

Title 11 – Buildings and Construction

Chapter 11.38 – Drainage and Watercourses establishes that no obstruction or interference with watercourses or floodways unless a permit is obtained prior to such fill or alteration.

Title 13 – Zoning

Chapter 13.08 – Development Review provides development review procedures and criteria to ensure site planning gives consideration to protection of the surrounding areas from potentially adverse influences within the development.

Chapter 13.16 – Park/Open Space District provides site development standards to protect landforms, areas capable of groundwater replenishment, natural drainages and waterways, lands with biological significance (including riparian and woodland areas), areas with significant native vegetation and habitat values, and natural areas for ecological, education, and other scientific study purposes.

City of Santee MSCP Subarea Plan (Draft)

The General Plan for the City of Santee requires that all development proposals impacting biological resources be consistent with the provisions of the City of Santee's future MSCP Subarea Plan and Implementing Agreement, and applicable state and federal regulations. Although the draft Santee MSCP Subarea Plan has not yet been approved, it is used as the guidance document for projects occurring within the City of Santee.

The proposed project has been identified as Not a Part (NAP) of the Subarea Plan Area. The take authorization under the Subarea Plan is not available for projects occurring in the NAP areas. The

applicant will seek 'take' authorization through ESA Section 7 or an individual Section 10 permit. The applicant will process all required permits and adhere to all relevant regulatory requirements. Impacts on listed species will utilize standard state and federal incidental take permit processes, as applicable. The format and content of this biological survey report is based upon the City of San Diego Biological Guidelines (City of San Diego 2018).

City of Santee Preserve Adjacency Guidelines

The draft Santee MSCP Subarea Plan includes guidelines to reduce potential for impacts from development on adjacent preserves. Because the proposed project is adjacent to City of Santee-owned Preserve Lands (Mast Park West), the City of Santee will ensure that new developments adjacent to the boundaries of the Subarea Plan Managed Preserve adhere to the following adjacency guidelines:

- **Drainage** - all developed and paved areas must prevent the release of toxins, chemicals, petroleum products, excess water, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the preserves. This will be accomplished using a variety of methods, including natural detention basins, grass swales, or mechanical trapping devices.
- **Lighting** - of all developed areas adjacent to the preserve should be directed away from the preserve wherever feasible and consistent with public safety. Low-pressure sodium lighting should be used whenever possible.
- **Noise** - uses adjacent to the preserve should be designed to minimize noise impacts. New development adjacent to the San Diego River shall incorporate noise reduction strategies in site design, landscaping, and buffer separation.
- **Invasive species** - no invasive nonnative plant or animal species can be introduced into areas immediately adjacent to the preserve. All open space slopes immediately adjacent to the preserve should be planted with native species that reflect the adjacent native habitat.
- **Fuel modification zones** shall be fully contained within the project site. Prior to implementing new developments adjacent to the Subarea Plan Preserve System, the local fire authority should review and approve proposed fuel modification treatments to ensure that no new fuel modification will be required within the preserve properties.

1.5.3.3 City of San Diego

General Plan

The City of San Diego General Plan presents goals and policies for biological resources in the Conservation Element, which generally aim to: protect and conserve the landforms, canyon lands, and open spaces; limit development of floodplains and sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands; manage and/or minimize runoff, sedimentation, and erosion due to construction activity in order to improve watershed management and water quality; manage wetland areas for natural flood control and preserve wetland areas; preserve areas within the MSCP and implement the goals and policies of the City of San Diego's MSCP SAP; support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions, and values; and to work with private, state, and federal organizations or people in order to implement an effective wetland management system (City of San Diego 2008). The

Conservation Element of the City of San Diego General Plan contains the following policies that are relevant to the proposed project:

- *Policy CE-B.1:* Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.
- *Policy CE-B.2:* Apply the appropriate zoning and ESL regulations to limit development of floodplains, sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands.
- *Policy CE-E.2:* Apply water quality protection measures to land development projects early in the process – during project design, permitting, construction, and operations – in order to minimize the quantity of runoff generated on-site, the disruption of natural water flows, and the contamination of storm water runoff
 - Increase on-site infiltration, and preserve, restore, or incorporate natural drainage systems into site design.
 - Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales, or mechanical trapping devices prior to draining into the MHPA or open space areas.
 - Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible. o Increase the use of vegetation in drainage design.
 - Maintain landscape design standards that minimize the use of pesticides and herbicides.
 - o Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where impacts are unavoidable, enforce regulations that minimize their impacts.
 - Apply land use, site development, and zoning regulation that limit impacts on and protect the natural integrity of topography, drainage systems, and water bodies.
 - Enforce maintenance requirements in development permit conditions
- *Policy CE-G.1:* Preserve natural habitats pursuant to the MSCP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability.
- *Policy CE-G.3:* Implement the conservation goals/policies of the City's MSCP SAP, such as providing connectivity between habitats and limiting recreational access and use to appropriate areas.
- *Policy CE-G.5:* Promote aquatic biodiversity and habitat recovery by reducing hydrological alterations, such as grading a stream channel.

Policy CE-H.4: Support the long-term monitoring of restoration and mitigation efforts to track and evaluate changes in wetland acreage, functions and values.

Municipal Code - Environmentally Sensitive Lands Regulations

Specific development regulations pertaining to sensitive biological resources exist in the Municipal Code in the Environmentally Sensitive Lands Regulations (ESL; Chapter 14, Division 1, Section 143.0141). The ESL defines sensitive biological resources as those lands included within the Multi-Habitat Planning Area (MHPA) as identified in the City of San Diego's MSCP Subarea Plan (City of San Diego 1997), the Vernal Pool Habitat Conservation Plan (VPHCP) (City of San Diego 2018), and other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA or IIIB; habitat for rare, endangered or threatened species; or narrow endemic species. The City of San Diego Land Development Manual – Biology Guidelines (City of San Diego 2018) provides guidelines to supplement the development regulation requirements.

MSCP Subarea Plan

The City of San Diego MSCP Subarea Plan describes how the City of San Diego implements its portion of the MSCP Plan. The City of San Diego subarea encompasses 206,124 acres within the MSCP study area. The proposed project consists of approximately 64.29 acres within the City of San Diego, all of which are within the subarea plan area. The documents used to implement the MSCP within the City of San Diego include the City of San Diego Subarea Plan (City of San Diego 1997), the Final MSCP Plan, and the Implementing Agreement between the City of San Diego and the Wildlife Agencies (signed July 1997). The implementing agreement is the contract between the City of San Diego and the Wildlife Agencies that ensures implementation of the subarea plan and thereby allows the City of San Diego to issue Take Permits for covered species within covered projects within its jurisdiction. The City of San Diego Subarea Plan is consistent with the MSCP Plan and qualifies as a stand-alone document to implement the City of San Diego's portion of the MSCP preserve.

The City of San Diego MHPA was developed by the City of San Diego in cooperation with the Wildlife Agencies, property owners, developers, and environmental groups. The City of San Diego's MHPA is approximately 56,831 acres and includes approximately 47,910 acres within City of San Diego jurisdiction, and additional City of San Diego-owned lands (8,921 acres) in the unincorporated areas around San Vicente Reservoir, Otay Lakes, and Marron Valley. The Preserve Design Criteria contained in the MSCP Plan and the City Council-adopted criteria for the creation of the MHPA were used as guides in the development of the City of San Diego's MHPA. The MHPA delineates core biological resource areas and corridors targeted for conservation. Within the MHPA limited development may occur. The MHPA represents a "hard line" preserve, in which boundaries have been specifically determined. The San Diego River on the southern side of the project site is located within the City of San Diego's MHPA. Portions of the existing golf course within the City of San Diego were designated as MHPA, perhaps erroneously. The proposed project would revise and restructure the existing golf course layout to a new golf course layout. Environmentally sensitive lands within the MHPA have been avoided; no sensitive vegetation within the MHPA would be removed by the proposed project.

The majority of the covered species are considered adequately conserved provided that the conditions described in "Species Evaluated For Coverage Under the MSCP" (Appendix A of City of San Diego 1997) are implemented. Appendix A of the City of San Diego MSCP Subarea Plan provides a full description of the conditions for coverage. Implementation of the conditions have been assured by incorporation of policies and/or guidelines into the appropriate section(s) of the Subarea Plan, associated land development regulations and/or biology guidelines.

Section 1.5.2 includes general management directives for all areas covered by the MSCP while Section 1.5.6 includes specific guidelines for the Eastern Area of the MSCP. The project has been designed to comply with the general management directives outline in 1.5.2. The guidelines for the Eastern Area apply specifically to East Elliott and Mission Trails Regional Park. The project will not impact these areas.

The guidelines are summarized below.

2.1 Literature and Database Review

Prior to field surveys, a literature and records search was conducted to establish the existence or potential occurrence of special-status biological resources (e.g., plant or animal species) or water resources within the BSA.

The following databases and resources were reviewed:

- CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019a)
- California Native Plant Society's (CNPS') Online Inventory of Rare and Endangered Plants, 8th Edition (CNPS 2019)
- San Diego Plant Atlas (San Diego Natural History Museum [SDNHM] 2019)
- USFWS Carlsbad Fish and Wildlife Office species occurrence data (USFWS 2018)
- SanBIOS sensitive species sightings (SANDAG 2019)
- National Wetlands Inventory (NWI) database (USFWS 2019)

For the purposes of this report, species are considered to be sensitive or have special status if they meet at least one of the following criteria:

- Species listed or proposed for listing as threatened or endangered under ESA (Code of Federal Regulations [CFR], Title 50, Section 17.12 [listed plants]); 50 CFR 17.11 (listed animals); and various notices in the *Federal Register* (FR) (proposed species).
- Species that are candidates for possible future listing as threatened or endangered under ESA.
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations [CCR] 670.5).
- Plant species listed as rare under the California NPPA (FGC 1900, et seq.).
- Species that meet the definitions of "rare" or "endangered" under CEQA (State CEQA Guidelines Sections 15380 and 15125).
- Animal species of special concern to the CDFW.
- Animals that are "fully protected" in California (FGC Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Species listed as having a California Rare Plant Rank (CRPR) of 1A (presumed extinct in California), 1B (rare, threatened, and endangered in California and elsewhere), or 2 (rare, threatened, or endangered in California, but more common elsewhere). CRPR List 1A, 1B, and 2 species are considered special-status plant species as defined in the NPPA, FGC Section 1901 or CESA, FGC Sections 2050–2098.

- Species considered CRPR List 3 (plants for which more information is needed [a review list]), or List 4 (plants of limited distribution [watch list]) (CNPS 2019). Many CRPR List 3 and List 4 species may not meet the definitions of special status as defined in the NPPA, FGC Section 1901, or CESA, FGC Sections 2050–2098, but are strongly recommended for consideration under CEQA (CNPS 2001).
- Species covered under the San Diego MSCP.

2.2 General Biological Survey and Vegetation Mapping

ICF biologists conducted field surveys in April through September 2019. Surveys were updated in April through August 2024. Dudek performed one survey in 2025. Table 2-1 provides a summary of all of the biological surveys and assessments conducted within the BSA. Vegetation mapping was conducted over the entire BSA. Survey areas for special-status species were restricted to suitable habitat for those species within the BSA.

Focused surveys were conducted for the following:

- Rare plants, with a focus on San Diego ambrosia (*Ambrosia pumila*)
- Southwestern pond turtle (*Actinemys pallida*)
- Coastal California gnatcatcher (*Polioptila californica californica*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Crotch's bumble bee (*Bombus crotchii*)
- Western spadefoot (*Spea hammondi*)

The uplands within the BSA were assessed for suitability for Quino checkerspot butterfly (*Euphydryas editha quino*) and western burrowing owl (*Athene cunicularia hypugaea*); suitable habitat was found to be missing for both. No suitable Quino checkerspot habitat was found to be present, and there were no suitable burrow resources within open habitat for burrowing owl.

Representative photographs of the site are included in Appendix A. Plant and animal species observed or otherwise detected were recorded in field notebooks. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. The locations of special-status plant and animal species incidentally observed or otherwise detected were mapped.

A summary of methods, results, and potential impacts is included in this report. The comprehensive list of all plant species observed during all field surveys is included in Appendix B. The comprehensive list of all animal species observed or detected during all field surveys is included in Appendix C.

The results of the literature review were compiled into tables of potentially occurring special-status plant and wildlife species, and each species was analyzed for its potential to occur within the BSA. These tables were later updated according to the results of the field surveys. The results of the determinations are provided in Appendices D and E.

The following sources were referenced for taxonomy and nomenclature, including both scientific and standardized English names used in this report: Baldwin et al. (2012) and Rebman and Simpson (2014) for plants; the Society for the Study of Amphibians and Reptiles (2022) for amphibians and reptiles; American Ornithological Society for birds (Chesser et al. 2021); and Bradley et al. (2014) for mammals. The scientific binomial from the cited reference is included with the first mention of a species in the body of this report.

Table 2-1. Biological Survey Dates

| Date | Survey Activity | Survey Personnel¹ |
|-------------|--|-------------------------------------|
| 3/14/2019 | Quino checkerspot butterfly habitat assessment | James Hickman |
| 4/6/2019 | California gnatcatcher | James Hickman |
| 4/16/2019 | Least Bell's vireo | Ryan Layden |
| 4/17/2019 | Jurisdictional Delineation | Lanika Cervantes, Nicole Salas |
| 4/19/2019 | California gnatcatcher | James Hickman |
| 4/24/2019 | Vegetation mapping and rare plant survey | Kelsey Dix, Shawn Johnston |
| 4/26/2019 | California gnatcatcher | James Hickman |
| 4/30/2019 | Least Bell's vireo | Ryan Layden |
| 5/3/2019 | California gnatcatcher | James Hickman |
| 5/17/2019 | Least Bell's vireo | Ryan Layden |
| 5/24/2019 | California gnatcatcher | James Hickman |
| 5/29/2019 | Least Bell's vireo | Ryan Layden |
| 5/29/2019 | Southwestern willow flycatcher | Brian Lohstroh |
| 6/10/2019 | Least Bell's vireo | Ryan Layden |
| 6/10/2019 | Southwestern willow flycatcher | Brian Lohstroh |
| 6/24/2019 | Least Bell's vireo | Ryan Layden |
| 6/24/2019 | Southwestern willow flycatcher | Brian Lohstroh |
| 6/24/2019 | Rare plant survey | Kelsey Dix, Shawn Johnston |
| 6/27/2019 | California gnatcatcher | James Hickman |
| 7/2/2019 | Southwestern willow flycatcher | Brian Lohstroh |
| 7/8/2019 | Least Bell's vireo | Ryan Layden |
| 7/8/2019 | Southwestern willow flycatcher | Brian Lohstroh |
| 7/22/2019 | Least Bell's vireo | Ryan Layden |
| 9/3/2019 | Southwestern pond turtle | Will Kohn |
| 9/4/2019 | Southwestern pond turtle | Will Kohn |
| 9/5/2019 | Southwestern pond turtle | Will Kohn, Marcus Goncalves |
| 9/6/2019 | Southwestern pond turtle | Will Kohn |
| 3/11/2020 | Jurisdictional Delineation mapping refinement | Meris Guerrero |
| 12/7/2021 | Jurisdictional Delineation mapping refinement | Meris Guerrero |
| 12/21/2022 | Vegetation mapping | Shawn Johnston |
| 4/28/2022 | Rare plant survey | Shawn Johnston, Alix Fowler |
| 5/9/2022 | Least Bell's vireo | Ryan Layden |
| 5/20/2022 | California gnatcatcher, western pond turtle visual | Brian Lohstroh |
| 5/23/2022 | Least Bell's vireo | Ryan Layden |
| 5/27/2022 | California gnatcatcher, western pond turtle visual | Brian Lohstroh |
| 6/3/2022 | California gnatcatcher, western pond turtle visual | Brian Lohstroh |
| 6/7/2022 | Least Bell's vireo | Ryan Layden |

| Date | Survey Activity | Survey Personnel ¹ |
|-----------|--|-------------------------------------|
| 6/8/2022 | Rare plant survey | Shawn Johnston, Alix Fowler |
| 6/14/2022 | California gnatcatcher | Brian Lohstroh |
| 6/21/2022 | Least Bell's vireo | Ryan Layden |
| 6/21/2022 | California gnatcatcher | Brian Lohstroh |
| 6/29/2022 | California gnatcatcher | Brian Lohstroh |
| 6/29/2022 | Mitigation site assessment | Alix Fowler, Dick Rol |
| 7/8/2022 | Least Bell's vireo | Ryan Layden |
| 8/9/2024 | Crotch's bumble bee habitat assessment | Brian Lohstroh |
| 8/16/2024 | Crotch's bumble bee survey | Brian Lohstroh, Antonette Gutierrez |
| 8/26/2024 | Crotch's bumble bee survey | Brian Lohstroh, Antonette Gutierrez |
| 8/30/2024 | Crotch's bumble bee survey | Brian Lohstroh, Antonette Gutierrez |
| 3/30/2025 | Western spadefoot survey | Brock Ortega ² |

1. All surveys performed by ICF unless otherwise noted.

2. Survey performed by Dudek.

2.2.1 Vegetation Mapping

ICF botanists Shawn Johnston and Kelsey Dix conducted vegetation mapping within the BSA on April 24, 2019, by walking meandering transects and observing from selected vantage points that allowed 100% visual coverage of the BSA.

Vegetation communities were classified based on the dominant and characteristic plant species, in accordance with the Holland classification system (1986), as modified by Oberbauer et al. (2008). Vegetation mapping was completed with Apple iPad devices using the ESRI Collector application. Digital aerial imagery for the BSA was loaded into ESRI Collector, which allowed for the digital mapping of vegetation polygons over aerial imagery in the field.

All plants observed within the BSA were identified to the species level (including subspecies or variety, as applicable) using *The Jepson Manual: Vascular Plants of California Second Edition* (Baldwin et al. 2012) and recorded (Appendix B). Plant common names followed the *Checklist of the Vascular Plants of San Diego County, 5th Edition* (Rebman and Simpson 2014) if the common names were not provided in Baldwin et al. (2012).

2.3 Special-Status Plant Survey Methods

ICF botanists Shawn Johnston and Kelsey Dix conducted focused surveys for special-status plant species within the BSA on April 24 and June 24, 2019 (Table 2-1). Mr. Johnson is very experienced with identifying the plant species of southern San Diego County; no permits are required for this work. The survey on June 24, 2019, included a focus on inspecting the BSA for San Diego ambrosia, a federally endangered plant known from the San Diego River floodplain. Surveys were repeated in 2022 within all suitable habitat for rare plants. ICF botanists Shawn Johnston and Alix Fowler conducted rare plant surveys on April 28 and June 8, 2022. Shawn Johnston conducted a reference site visit at a population of San Diego ambrosia during the week of May 16, 2022, and determined that the species would be readily observable during early June if it were present within the BSA.

Surveys were conducted in accordance with survey protocols set forth by *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000); *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018); and *CNPS Botanical Survey Guidelines* (CNPS 2001). Soil maps and vegetation maps were reviewed to identify areas with higher potential to support special-status plant species.

The locations of special-status plants were mapped with ESRI Collector software on an Apple iPad and uploaded to ArcGIS Online. Subsequent to the field survey, data were brought into geographic information system (GIS) for analysis.

2.4 Special-Status Animal Survey Methods

In 2019, ICF biologists conducted protocol-level surveys for southwestern pond turtle, coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher within suitable habitat for each of the species. No suitable breeding habitat for tricolored blackbird (*Agelaius tricolor*) exists in the BSA, so no surveys were determined to be necessary to determine the absence of this species. In March 2019, ICF conducted a habitat assessment for Quino checkerspot butterfly (Quino) and found no suitable habitat; therefore, the species was considered to be absent and no surveys were required. Details of the habitat assessment for Quino is described in Section 2.4.1. ICF conducted a review for suitable burrowing owl habitat while performing other studies. This review included searching for appropriately sized burrows or crevices that were 4 inches or larger in diameter within open habitats (i.e., not densely vegetated habitat). No suitable burrows were found; therefore, the species was considered to be absent, and no surveys were required. In 2022, ICF repeated protocol-level surveys for coastal California gnatcatcher and least Bell's vireo and conducted focused visual surveys for southwestern pond turtle. The 2022 survey update for least Bell's vireo included suitable habitat previously surveyed in 2019, excluding San Diego River south of the golf course. San Diego River was excluded from the survey because CNDDDB data (CDFW 2022) and the 2019 survey results show San Diego River (South Channel) to be consistently occupied by least Bell's vireo; therefore, San Diego River is considered occupied habitat. The proposed project does not propose any direct impacts within San Diego River (South Channel). ICF conducted four focused surveys for Crotch's bumble bee in potentially suitable habitat within the BSA in August 2024. In 2025, Dudek performed an egg cluster and larvae survey within suitable breeding habitat in the BSA. Details of the survey methodology for southwestern pond turtle, coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, Crotch's bumble bee, and western spadefoot are discussed in the following sections.

2.4.1 Quino Checkerspot Butterfly Habitat Assessment

The BSA is within the geographical limits of the Recommended Quino Survey Area, as described within the USFWS *Quino Checkerspot Butterfly Survey Guidelines* (USFWS 2014). ICF biologist James Hickman conducted a habitat assessment for the federally endangered Quino checkerspot butterfly (Quino) on March 14, 2019 (Table 2-1). Mr. Hickman possesses a valid USFWS 10(A)1(a) recovery permit to conduct protocol surveys for Quino and is experienced with this species' habitat requirements. The Guidelines recommend site assessments to determine if a project site contains areas where surveying for Quino is recommended. Site assessments involve conducting a field

survey of the site and mapping excluded areas. Excluded areas include developed areas and closed-canopy woody vegetation, including forests, riparian areas, shrublands, and chaparral.

As the BSA consists of a golf course and other developed areas, ponds, and riparian areas that are unsuitable to support Quino, the entire site was determined to be entirely excludable habitat and no surveys were recommended.

2.4.2 Burrowing Owl Habitat Assessment

The BSA is within the range for western burrowing owl, and individuals have occasionally and rarely been found within the vicinity. Western burrowing owl is a covered species under the Draft City of Santee Subarea Plan. Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils that also include suitably sized burrows of 4 inches or greater in size (CDFW 2012). ICF, while performing the suite of other technical studies, also systematically surveyed the BSA for the presence of 4-inch or greater burrows within suitable habitat. Excluded areas included developed areas and closed-canopy woody vegetation, including forests, riparian areas, shrublands, and chaparral.

Because the BSA consists of a golf course, other developed areas, ponds, and riparian areas that are devoid of burrows and unsuitable to support burrowing owls, the entire site was determined to be entirely excludable, and no surveys were recommended.

2.4.3 Southwestern Pond Turtle

The ponds within the survey area have intermittent hydrology (dry out during some summers). While pond turtles require permanent waters, visual and trapping surveys were conducted to provide further information regarding distribution of this species. ICF biologist William Kohn (Scientific Collection Permit [SCP] #3387) conducted southwestern pond turtle trapping on September 3 through 6, 2019 (Table 2-1). He was assisted by biologist Marcus Goncalves on September 5. Trapping was conducted based on the recommended guidelines provided by the *USGS Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion* (USGS 2006a). Visual surveys for turtles were conducted opportunistically between trap deployments and trap checks, and generally followed recommended guidelines provided by the *USGS Western Pond Turtle Visual Survey Protocol for the Southcoast Ecoregion* (USGS 2006b).

Prior to the trapping survey, the study's trapping plan was submitted to Laura Patterson and Tim Hovey at CDFW for review and approval. On August 20, 2019, Ms. Patterson and Mr. Hovey provided written approval of the trapping plan prior to initiation of the study. Trapping was conducted in Pond A, which is associated with San Diego River (North Channel) and was created by a weir that impounds the creek. Prior to the trapping effort, all gear and traps were decontaminated using a chlorine bleach solution. The survey utilized floating hoop-style turtle traps that measure approximately 3 feet in diameter by 5 feet long, with a 2-inch mesh size, which were held open with two PVC poles. Two empty 1-gallon plastic jugs were attached to each trap for floatation to allow for any turtles to have a space in which to breathe, while keeping the trap funnel entrance submerged. The traps were baited with canned sardines in oil. The traps were set in the afternoon of the first day and checked the following morning. The traps were then redeployed and checked in the afternoon. The surveys were conducted over 4 days and 3 nights. Trapping would have been stopped if a pond turtle was captured. Traps were removed at the conclusion of the study.

Data collected during trap deployments and at trap checks included: GPS location, date and time, weather conditions, water and air temperatures, and identification of all species captured. The *Turtle Trapping Study in Support of Carlton Oaks Residential Project* report is included as Appendix F.

Visual surveys for western pond turtle were repeated in 2022 over all suitable habitat within the BSA. ICF biologist Brian Lohstroh conducted visual surveys on May 20, May 27, and June 3, 2022 (Table 2-1) following the visual survey protocol (USGS 2006b).

2.4.4 Coastal California Gnatcatcher

ICF biologist James Hickman conducted six protocol-level presence/absence surveys for coastal California gnatcatcher in accordance with the *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines* (USFWS 1997). Mr. Hickman possesses a valid USFWS 10(A)1(a) recovery permit to conduct protocol surveys for California gnatcatcher and is experienced with this species' habitat requirements. Surveys were conducted on April 6, 19, and 26, May 3 and 24, and June 27, 2019 (Table 2-1). Surveys were conducted within all potential habitat within the project site and a 500-foot buffer from the project site.

The six surveys were conducted at least 1 week apart between 6:00 a.m. and 12:00 p.m. Surveys were not conducted during periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather. Methods included slowly walking through the vegetation with frequent stops to listen and play recorded coastal California gnatcatcher vocalizations. During each visit, a recorded vocalization was broadcast at least once in all potential habitat at distance intervals of approximately 75 to 100 feet. The 2019 USFWS survey report is included in Appendix G.

ICF repeated protocol level surveys for coastal California gnatcatcher in 2022. ICF biologist Brian Lohstroh conducted six protocol-level presence/absence surveys on May 20 and 27, and June 3, 14, 21, and 28, 2022 (Table 2-1). Surveys were conducted within all potential habitat within the project site and a 300-foot buffer from the project site. Surveys were conducted during appropriate times and conditions to detect the species. The 2022 USFWS survey report is included in Appendix G.

2.4.5 Least Bell's Vireo

ICF biologist Ryan Layden conducted eight protocol-level surveys for least Bell's vireo following the guidance in *Least Bell's Vireo Survey Guidelines* (USFWS 2001) in 2019. Mr. Layden is an avian biologist familiar with the song, calls, scolds, and plumage characteristics of adult and juvenile least Bell's vireo. The survey protocol to determine presence/absence of least Bell's vireo does not require that the surveyor have a federal 10(A)1(a) permit, as long as vocalization tapes are not used. Riparian habitat within the BSA was determined to be suitable breeding habitat for this species and was designated as the survey area. The survey area was inspected eight times within the least Bell's vireo breeding season between April 16 and July 22, 2019 (Table 2-1).

The eight surveys were conducted at least 10 days apart and were conducted between 7:00 a.m. and 11:00 a.m. (Table 2-1). Surveys were not conducted during periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather. All visits were performed during morning hours prior to 11:00 a.m., when vireos are most active, and included frequent stops to look for individuals and listen for vocalizations (songs and/or scolds). All vireo detections (e.g., vocalization points, areas used for foraging) were recorded to estimate location and extent of territories. A list was compiled

of all bird species observed or detected following the taxonomy in *Online Checklist of North American Birds* (Chesser et al. 2021). The USFWS survey report is included in Appendix H.

ICF repeated surveys for least Bell's vireo in 2022. Protocol-level surveys were previously conducted in suitable habitat within the project boundary and 100-foot buffer in 2019 (Appendix H). These surveys determined that the San Diego River to the south of the golf course and the riparian area in the northeastern side of the proposed project were occupied by least Bell's vireo during the breeding season.

The 2022 survey update included suitable habitat previously surveyed in 2019, excluding the San Diego River south of the golf course. San Diego River (South Channel) was excluded from the survey as CNDDDB data (CDFW 2022) and the 2019 survey results show the San Diego River (South Channel) to be consistently occupied by least Bell's vireo and therefore the San Diego River (South Channel) is considered occupied habitat. The Project does not propose any direct impacts within the San Diego River (South Channel).

The project proposes impacts to riparian habitat on the northeastern side of the proposed project (associated with an emergency access road to the project site) and the habitat in the north-central associated with a storm-drain outfall. The remainder of the potentially suitable habitat would not be directly impacted by the proposed project. Because of the City of Santee recommendation for 3:1 mitigation for both occupied and unoccupied riparian habitat (following the guidance in the 2018 Wildlife Agency Draft Santee MSCP subarea plan) and previous information on the wide distribution of least Bell's vireo within the San Diego River, only five surveys (instead of eight) were conducted during this 2022 update of 2019 surveys. Surveys were conducted during appropriate times and conditions. The 2022 USFWS survey report is included in Appendix H.

2.4.6 Southwestern Willow Flycatcher

ICF biologist Brian Lohstroh conducted five protocol-level surveys for southwestern willow flycatcher following the survey protocol in *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* (Sogge et al. 2010). Mr. Lohstroh is an avian biologist holding a USFWS 10(A)1(a) recovery permit (TE-063608-6) to conduct breeding season presence/absence surveys for southwestern willow flycatcher. Riparian habitat within the BSA was determined to be suitable breeding habitat for this species and was designated as the survey area. Mr. Lohstroh conducted one survey within the first survey period (May 15–31, 2019), two within the second survey period (June 1–24, 2019), and two within the third survey period (June 22–July 17, 2019) (Table 2-1). Southwestern willow flycatcher surveys were not conducted concurrently with least Bell's vireo surveys by the same biologist; a second biologist conducted the vireo portion on any given southwestern willow flycatcher survey date.

The five surveys were conducted at least 5 days apart and were concluded before 10 a.m. (Table 2-1). Surveys were not conducted during periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather. During each survey, the surveyor approached each site and listened for spontaneously singing flycatchers. If flycatchers were not heard during the initial listening period, the surveyor broadcast digital willow flycatcher songs from a smart phone device for 10-15 seconds, then listened for approximately 1 minute for a response. This procedure was repeated every 20–30 yards throughout the site. The USFWS survey report is included in Appendix H.

Surveys were conducted in 2019 in potentially suitable habitat within the BSA. The project has been revised to avoid direct impacts to all potentially suitable habitat for southwestern willow flycatcher. Because of the lack of direct impacts to suitable habitat surveys were not updated in 2022.

2.4.7 Crotch's Bumble Bee

ICF biologists conducted four protocol-level surveys for Crotch's bumble bee (Table 2-1). Although the survey visits did occur during the colony active period for Crotch's bumble bee (April through August), which is determined to provide the highest detection probability, the survey schedule did not strictly adhere to the *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023). The *Survey Considerations* recommend that three on-site surveys take place, ideally spaced 2-4 weeks apart to span a range of dates and account for variability in resource use and floral resource phenology. Due to Project-related schedule constraints, the four surveys were spaced 7, 10, and 4 days apart from August 9 to August 30, 2024 (Table 2-1). The fourth survey visit was added to provide a wider range of dates and help compensate for the lack of strict adherence to the Survey Considerations

The surveys were conducted passively, using visual and photographic identification of foraging bumblebees. The surveyors also used 8 x 42 or similar power binoculars to assist with visual identification. No bumblebee captures were made during the surveys. Passive surveys for Crotch's bumble bee have been shown to be effective in Southern California because trained, experienced biologists can readily differentiate Crotch's bumble bee from the other potentially occurring *Bombus* species in the field live (often with the aid of binoculars) or by studying photographs of observed, uncaptured bumblebees (AECOM 2023a, 2023b). Both Mr. Lohstroh and Ms. Gutierrez have more than 20 years of experience performing focused surveys for other flying insects, such as Quino checkerspot butterfly, for which they hold current U.S. Fish and Wildlife Service permits. The surveyors also attended a Crotch's bumble bee-focused training in 2023 and passed an associated Crotch's bumble bee identification test (AECOM 2023a, 2023b). In addition, they have surveyed for the species at numerous other sites with positive Crotch's bumble bee identification in 2023 and 2024.

2.4.8 Western Spadefoot

A Dudek biologist conducted a single-pass survey for western spadefoot egg clusters and larvae within suitable breeding habitat in the BSA (Table 2-1). The survey consisted of reviewing all water bodies within the BSA, including the golf course water features, irrigation basin, San Diego River northern tributary, San Diego River (south of the berm), and standing water areas inside and adjacent to the berm. Western spadefoots were known to be breeding elsewhere throughout their range (Brock Ortega, Dudek, pers. obs. from Santee, Fallbrook, and Riverside County, 2025) at the time of the survey, so the timing was deemed to be appropriate. There are no official survey protocols for western spadefoot, and the habitat was deemed marginal; therefore, a single-pass egg/larvae survey was deemed appropriate. San Diego River north, the golf course water features, and the irrigation ponds were either densely vegetated, too deep, or included steep constructed sides, in addition to bullfrogs and predatory fishes, which made them unsuitable for western spadefoots. The San Diego River south of the berm included possible backwater areas that could be suitable, but mostly consisted of fast-flowing water that occasionally flowed into deeper pools before continuing. These areas were not searched and were mostly considered to be of marginal suitability. Two pooled water areas, likely the result of depressions combined with river overflow,

were present in the western third of the BSA directly adjacent to the berm. At least one area was within the City of San Diego, and the western-most area was at the boundary of both San Diego and Santee.

At the two possible breeding locations, the survey consisted of walking the perimeter while looking for evidence of western spadefoot. This included searches for the diagnostic egg clusters and larvae. The eastern pooled area included a dense covering of duck weed (*Lemna* sp.) that had to be pushed aside to review the water column. The western pooled area was freely visible and included numerous aquatic plants that spadefoot could attach egg clusters to, making it the most suitable feature. After confirming that no egg clusters or larvae were present at the margins or as far as could be seen from the edge, the biologist walked into the pooled areas to further search the interior.

2.5 Jurisdictional Delineation

2.5.1 Project Research

Prior to the field visit, aquatic resources were identified using high-resolution aerial imagery overlaid with GIS data from the NWI (USFWS 2019) and national hydrography dataset (NHD) (USGS 2019). These were used to identify the locations of potential areas of USACE, RWQCB, and CDFW jurisdiction within the biological study area, which is the project site and a 100-ft buffer. In addition to the regionally available data (e.g., NWI and NHD) the approximate location and extent of aquatic resources were identified based on observed vegetation types, topographic changes, and visible drainage patterns. The proposed project is located within the 100-year floodway and floodplain of the San Diego River.

2.5.2 Field Investigation

On April 17, 2019, ICF delineators, Lanika Cervantes and Nicole Salas, conducted the jurisdictional field delineation within the project site; a survey buffer was not included in the field jurisdictional delineation. The large, internal avoidance area along Sycamore Canyon Creek and San Diego River (North Channel) in the northeastern portion of the project site was not delineated, as these areas would not be impacted by the proposed project. The survey was conducted on foot, and jurisdictional limits were recorded using high-resolution aerial photographs (1 inch = 100 feet) and an Apple iPad using ESRI Collector with a sub-meter accuracy GPS unit. Existing conditions were documented as field notes and site photographs (Appendix I).

ICF delineator Meris Guerrero conducted a site visit on March 11, 2020, to direct land surveyors from SB&O to record the precise limits of riparian areas along the SANDAG trail adjacent to the western residential areas. Ms. Guerrero conducted a site visit on December 7, 2021, to confirm and refine CDFW jurisdiction along the borders of development along the northern side of the project site.

2.5.3 Jurisdictional Methods

2.5.3.1 U.S. Army Corps of Engineers Jurisdiction

Potential waters of the U.S., including wetlands, were evaluated for the presence of Ordinary High Water Mark (OHWM) indicators and/or wetland vegetation, soils, and hydrology. Lateral limits of

non-wetland waters of the U.S. were delineated based on the presence of OHWM indicators using field indicators pursuant to *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States: A Determination Manual* (USACE 2008a). Arid West Ephemeral and Intermittent Stream OHWM Datasheets were completed for all applicable non-wetland waters and are provided in Appendix I. The project was also analyzed for potential wetlands using the methodology set forth in the 1987 *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008b). Vascular plants were identified using *The Jepson Manual: Vascular Plants of California* Second Edition (Baldwin et al. 2012) and *The National Wetland Plant List* (Lichvar et al. 2016).

Within the proposed project site, in areas located outside of the OHWM that exhibited evidence of wetland hydrology and/or hydrophytic vegetation, wetland sample soil pits were dug to examine soil color and texture and determine the wetland boundary. A paired-pit technique (i.e., one sample point with wetland results paired with one sample point with non-wetland results) was used to identify the wetland boundary. Wetland Determination Forms are provided in the Jurisdictional Delineation Report (Appendix I). An Approved Jurisdictional Determination for the non-jurisdictional golf course ponds was obtained from USACE in June 2020 and is included in Appendix J.

2.5.3.2 State Water Resources Control Board/Regional Water Quality Control Board Jurisdiction

Evaluation of state jurisdiction followed guidance from Section 401 of the CWA and typically follows the same jurisdictional areas as USACE. In addition, the proposed project site was reviewed for resources potentially regulated under the Porter-Cologne Act (i.e., isolated features). Isolated vernal pools, isolated wetlands, or other aquatic features not normally subject to federal regulation did not occur within the proposed project site; therefore, no further evaluation pursuant to the Porter-Cologne Act was necessary.

2.5.3.3 California Department of Fish and Wildlife Jurisdiction

CDFW jurisdiction typically includes surface water features with a defined bed and bank. Evaluation of potentially jurisdictional areas followed the guidance of standard practices by CDFW personnel. Briefly, CDFW jurisdiction was delineated by measuring outer width and length boundaries of potentially jurisdictional areas (e.g., lakes or streambeds), consisting of the greater of either the top of bank measurement or the extent of adjacent associated riparian or wetland vegetation.

2.5.3.4 City of San Diego Jurisdiction

City of San Diego wetlands include areas within the city limits characterized by any of the following conditions:

- Areas with naturally occurring wetland vegetation communities.
- Areas that have hydric soils or wetland hydrology but lack naturally occurring vegetation communities because of human activities.
- Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

- Areas within the Sensitive Coastal Overlay Zone.

The City of San Diego wetland definition is intended to differentiate between naturally occurring wetlands and wetlands intentionally created by human actions. Areas demonstrating wetland characteristics, which are artificially created, are not considered wetlands by the City of San Diego wetland definition.

2.5.3.5 City of Santee Jurisdiction

The City of Santee does not evaluate jurisdictional areas differently than those outlined above.

Chapter 3

Environmental Setting

Chapter 3 describes the results of biological surveys conducted for the proposed project, including the physical and biological characteristics of the site.

3.1 Physical Characteristics

This section describes existing topography, land use, hydrology, and soils associated with the BSA for the proposed project.

3.1.1 Topography

The project site is located immediately north of State Route 52 (SR-52) and the San Diego River and is immediately south of Carlton Oaks Drive. The topography in the project site is relatively flat as it is within the historical floodplain of the San Diego River.

3.1.2 Hydrology

The proposed project site lies within the Lower San Diego River watershed (Hydrologic Unit Code [HUC] 10: 1807030407) and contains the lower San Diego River and Forester Creek. These drainages are all characterized by vegetated streambeds and riparian habitats that run through urban areas. The southern boundary of the project site parallels the San Diego River (South Channel). Sycamore Canyon Creek enters the site in the northeast merges with the San Diego River (North Channel), then traverses the existing golf course, joining the San Diego River (South Channel) in the southwest side of the project site.

The drainages are surrounded by open space. Single-family residences are scattered throughout the area, while concentrated low-density residential uses surround the project site. Developed areas along the San Diego River are likely causing drainages to receive additional inputs via urban runoff. The lower San Diego River and Forester Creek are listed as impaired waterbodies under Section 303(d) of the CWA.

No vernal pools or similar ephemeral, seasonally inundated depressions were found to occur within the BSA.

3.1.3 Soils

There are no steep slopes or rock outcrops in the BSA. The Natural Resources Conservation Service (NRCS) has mapped the following soil series as occurring within the delineated jurisdictional waters based on the Soil Survey Geographic (SSURGO) database (USDA/NRCS 2006): Redding, Riverwash, Visalia, and Vista.

Soil series included within the SSURGO mapping unit (San Diego County Area; CA638) are described below based on the official soil descriptions provided by the U.S. Department of Agriculture (USDA/NRCS 2012). Soil maps for the project site are included in the Jurisdictional Delineation Report (Appendix I).

3.1.3.1 Redding

The Redding soil series (RdC, ReE, RhC, and RhE) consists of well- or moderately well-drained soils that are found on terraces. The soils are formed from alluvium derived from mixed sources. The extent of the soils occurs along the northern and eastern edge of Central Valley in California. They occur in elevations from 130 to 1,000 feet and have slopes from 0% to 30%. They have very low to high run off and very slow to slow permeability.

This soil series is not identified as hydric soils for San Diego County (USDA/NRCS 2011).

3.1.3.2 Riverwash

The Riverwash soil series (Rm) consists of excessively drained soils found on drainage ways. The soils formed from sandy, gravelly, or cobbly alluvium procured from mixed sources, and occur in elevations from 700 to 2,900 feet and at 0% to 4% slopes. They have negligible runoff.

This soil series is identified as hydric for San Diego County (USDA/NRCS 2011). Riverwash soils have potential to support wetland communities, including riparian forest. Vegetation mapping and jurisdictional delineations determined the extent of wetland communities within the BSA.

3.1.3.3 Visalia

The Visalia soils series (VbB and VbC) consists of well-drained soils that are typically associated with alluvial fans and floodplains. The soils are formed from alluvium derived from granite and occur in elevations ranging from 0 to 4,000 feet and at 5% to 15% slopes. This soils series is identified as hydric for San Diego County (USDA/NRCS 2011).

3.1.3.4 Vista

The Vista soil series (VbB, VbC, and VvD) consists of moderately deep, well-drained soils that formed in material weathered from decomposed granitic rocks. Vista soils are on hills and mountainous uplands and have slopes of 2% to 85%. This soil series is not identified as hydric for San Diego County (USDA/NRCS 2011).

3.2 Biological Resources

3.2.1 Vegetation Communities

Thirteen vegetation communities or landcover types were observed within the BSA. Table 3-1 provides the amount of each vegetation community present within the BSA, which are illustrated in Figure 4. The majority of the BSA (80%) is made up of developed and disturbed habitats, with the remainder (20%) consisting of natural habitats. The vegetation communities observed were: coastal and valley freshwater marsh, developed (including golf course), Diegan coastal sage scrub – disturbed, disturbed habitat, disturbed wetland, eucalyptus woodland, freshwater (jurisdictional ponds), mule-fat scrub – disturbed, non-native grassland, non-native riparian, southern cottonwood-willow riparian forest (including disturbed), and southern riparian scrub.

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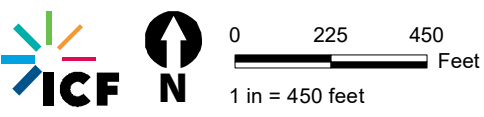
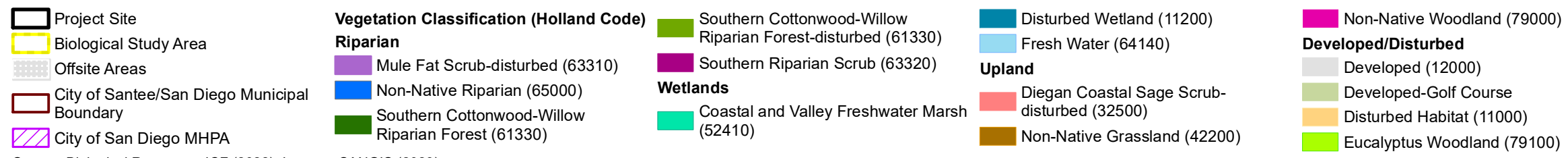
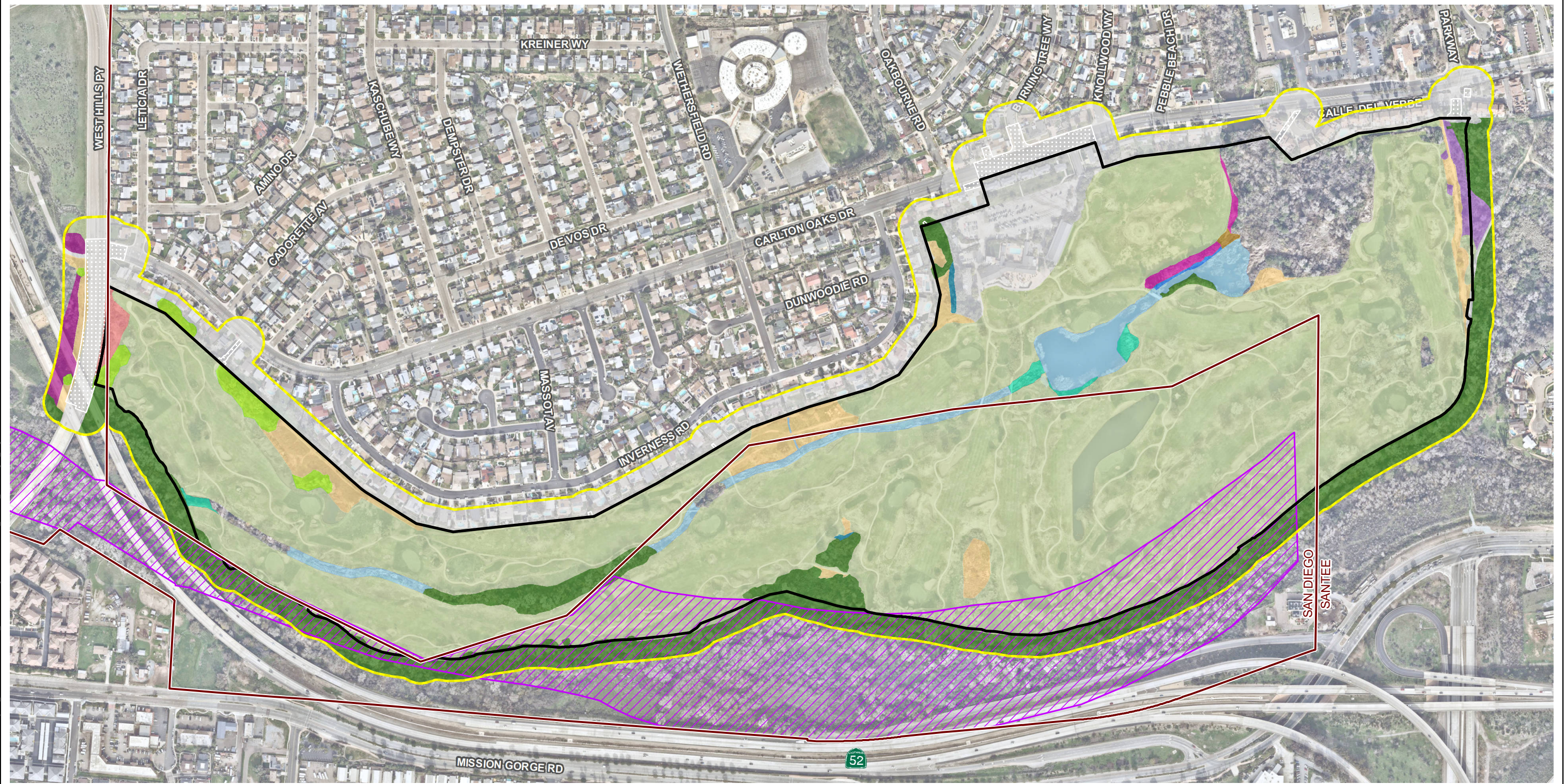


Figure 4
Vegetation Communities
Carlton Oaks Country Club and Resort

Table 3-1. Existing Vegetation Within the Biological Study Area

| Vegetation Community | Project Site | | 100-Foot Buffer | Total in BSA |
|--|--------------|----------|-----------------|--------------|
| | On-Site | Off-Site | | |
| Natural Habitats: | | | | |
| Coastal and Valley Freshwater Marsh | 0.68 | 0 | 0 | 0.68 |
| Diegan Coastal Sage Scrub – disturbed | 0.50 | 0.11 | 0 | 0.61 |
| Disturbed Wetland | 0.15 | 0 | 0 | 0.15 |
| Fresh Water | 5.31 | 0 | 0 | 5.31 |
| Mule Fat Scrub – disturbed | 0.52 | 0 | 0.35 | 0.87 |
| Non-Native Grassland | 0.09 | 0 | 0.02 | 0.11 |
| Non-Native Riparian | 0.31 | 0 | 0 | 0.31 |
| Southern Cottonwood-Willow Riparian Forest | 4.93 | 0 | 18.94 | 23.87 |
| Southern Cottonwood-Willow Riparian Forest – disturbed | 8.76 | 0 | 0.69 | 9.45 |
| Southern Riparian Scrub | 0 | 0 | 0.98 | 0.98 |
| Natural Habitat Subtotals*: | 21.25 | 0.11 | 20.98 | 42.36 |
| Developed and Other Landcover: | | | | |
| Developed | 7.21 | 3.38 | 21.00 | 31.59 |
| Developed – Golf Course | 128.86 | 0 | 0.83 | 129.69 |
| Disturbed Habitat | 5.65 | 0.12 | 0.48 | 6.25 |
| Eucalyptus Woodland | 1.32 | 0.02 | 0.34 | 1.68 |
| Non-Native Woodland | 0.52 | 0 | 0 | 0.52 |
| Developed and Other Subtotals: | 143.56 | 3.52 | 22.65 | 169.73 |
| Project Totals*: | 164.82 | 3.63 | 43.62 | 212.07 |

* Totals may not match sum of categories because of rounding.

The existing golf course is primarily considered “developed,” consisting of managed ornamental plantings, including trees and fairways, which were dominated by exotic and ornamental grasses. Areas of jurisdictional wetlands were identified as their applicable vegetation community. San Diego River (North Channel) runs through the golf course and has associated riparian habitat, including coastal and valley freshwater marsh, southern cottonwood-willow riparian forest, and disturbed wetland. Within the golf course there were also non-jurisdictional human-made ponds that were identified as developed.

Small amounts of other upland vegetation communities exist, primarily around the edges of the project site, including eucalyptus woodland, non-native grassland, and Diegan coastal sage scrub – disturbed.

The San Diego River (South Channel) and Forester Creek merge to the east and south of the project site. The majority of the riparian areas in and around the project site were mapped as southern cottonwood-willow riparian forest. Small sections of more open, shrubby habitat were mapped as mule-fat scrub – disturbed and southern riparian scrub.

In conformance with Resolution 078-2021, in December 2021, a contractor working on behalf of the City of Santee conducted fuel management clearing at the northeast corner of the site, in the vicinity of the northeast emergency entrance from Calle del Verde. This fuel modification removed non-

native trees on the slope of the adjacent condominium complex and also resulted in less than 0.1 acres of tree removal within the project site. The fuel modification removed dozens of non-native trees such as Mexican fan palms (*Washingtonia robusta*) and damaged or removed five native trees on site to access some of these non-native trees (Appendix L). Because of the limited size of this disturbance area and existing surrounding riparian habitat elements that were not disturbed or effected and potential for riparian regrowth, no changes are recommended to the original vegetation mapping layers. Vegetation mapping presented in Figure 4 represents conditions that were present prior to the fuel management activities.

3.2.1.1 Coastal and Valley Freshwater Marsh: Oberbauer Code 52410

Freshwater marsh communities are found in areas permanently inundated or flooded by fresh water, lacking significant current from water movement. Prolonged saturation in these communities allows for the accumulation of deep, peaty soils. Freshwater marshes are usually located in the coastal valleys near river mouths and around the margins of lakes and springs. Freshwater marsh is dominated by perennial, emergent monocots, typically ranging from 4 to 5 feet tall. Typically, species of cattails (*Typha* spp.) and bulrush (*Schoenoplectus* spp.) dominate this community.

A total of 0.68 acres of freshwater marsh was identified within the BSA (Table 3-1; Figure 4). Broad-leaved cattails (*Typha latifolia*) dominated this community. Other species included the invasive floating water-primrose (*Ludwigia peploides*) and bulrushes. Within the City of San Diego, this would be categorized as a type of freshwater marsh. The City of San Diego considers freshwater marsh to be an ESL wetland. The City of Santee does not have a similar designation, but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.2 Developed: 12000

Developed areas include those that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. These areas are characterized by permanent or semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require irrigation. Areas where no natural land is evident because of a large amount of debris or other materials being placed upon it may also be considered urban/developed (Oberbauer et al. 2008).

A total of 31.59 acres of developed land was identified within the BSA. The 7.21 acres of developed areas on site are primarily associated with the existing golf course clubhouse in the northern portion of the project site along Carlton Oaks Drive (Table 3-1; Figure 4). The other urban/developed land in the BSA includes residential housing on the north side of the project site, and public roads including West Hills Parkway and Carlton Oaks Drive. Developed land is not considered a sensitive land cover by the City of Santee or City of San Diego (City of San Diego 2018).

3.2.1.3 Developed – Golf Course: 12000

This community includes areas associated with the golf course, with fairways, rough, and greens. It also includes the ornamental trees associated with the golf course, such as eucalyptus and planted Fremont's cottonwood (*Populus fremontii*). Areas of "rough" may include planted, ornamental, or invasive non-native grass and forb species.

A total of 129.69 acres of developed golf course occurs in the BSA. Golf course is not considered a sensitive land cover by the City of Santee or City of San Diego (City of San Diego 2018).

3.2.1.4 Diegan Coastal Sage Scrub: 32500

Diegan coastal sage scrub is a low, soft-woody community of shrubs that are most active in the winter and early spring with many species identified as facultatively drought-deciduous. The dominant species may vary by soil type, slope, and aspect. It is most commonly dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), and lemonade berry (*Rhus integrifolia*). This vegetation community is primarily constrained to drier coastal slopes. Many species associated with this community have become rarer because of development pressures from urban and agricultural development.

A total of 0.61 acres of Diegan coastal sage scrub – disturbed was identified in the BSA (Table 3-1, Figure 4). Areas mapped as Diegan coastal sage scrub – disturbed on site consist of dry open plantings on the shoulder and embankment of West Hills Parkway. Broom baccharis (*Baccharis sarothroides*) was the dominant plant species, with associated species such as California buckwheat and California sagebrush, and with invasive non-native weeds between the shrubs. Diegan coastal sage scrub is classified by the City of San Diego as a Tier II sensitive upland (City of San Diego 1997). The City of Santee does not have a similar designation, but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.5 Disturbed Habitat: 11000

Disturbed habitat supports either no vegetation or a cover of non-native weedy species that are adapted to a regime of frequent human disturbance (Oberbauer et al. 2008). Many of the characteristic species of this habitat are also indicator species of annual grasslands, although disturbed areas are dominated more by non-native forbs than grasses. Characteristic species may include black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycocephalus*), bristly ox-tongue (*Helminthotheca echinoides*), and milk thistle (*Silbum marianum*).

A total of 6.25 acres of disturbed habitat was identified in the BSA (Figure 4; Table 3-1). The disturbed habitat in the BSA was generally dominated by non-native herbaceous species, including tumbleweed (*Salsola tragus*), field mustard (*Hirschfeldia indica*), horseweed (*Conyza canadensis*), Bermuda grass (*Cynodon dactylon*), and sow thistle (*Sonchus* spp.). Disturbed habitat is not considered a sensitive vegetation community by the City of Santee, and is classified by the City of San Diego as a Tier IV upland. Lands designated as Tier IV are not considered to have significant habitat value (City of San Diego 2018).

3.2.1.6 Disturbed Wetland: 11200

Disturbed wetlands are areas permanently or periodically inundated by water that have been significantly modified by human activity.

A total of 0.15 acres of disturbed wetland was observed in the BSA, associated with a storm drain outfall to the west of the existing golf course clubhouse within the City of Santee (Table 3-1; Figure 4). No disturbed wetland was mapped in City of San Diego. The disturbed wetland in the BSA was dominated by cocklebur (*Xanthium strumarium*) and black mustard, with some Mexican rush (*Juncus mexicanus*) and western ragweed (*Ambrosia psilostachya*). The City of Santee considers it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.7 Eucalyptus Woodland: 79100

Eucalyptus woodland is dominated by gum trees (*Eucalyptus* spp.), an introduced genus that has been planted for ornamental purposes and for hardwood production and wind blocking. Gum trees typically occur in the form of clustered trees. The understory of mature groves is usually sparse because of the allelopathic chemicals exuded by the decomposing leaves. With a constant moisture source, the species becomes naturalized and will reproduce and expand its range. The sparse understory offers only limited wildlife habitat; however, individual trees and eucalyptus woodlands can provide nesting sites for a variety of raptors. During winter migrations, a large variety of migrating songbirds may be found feeding on the insects that are attracted to eucalyptus flowers.

A total of 1.68 acres of eucalyptus woodland was identified within the BSA (Table 3-1; Figure 4). Areas mapped as eucalyptus woodland are present on the west side of the BSA along the edges of the project site. Gum tree species include red iron bark (*Eucalyptus sideroxylon*), Tasmanian blue gum (*Eucalyptus globulus*), and sugar gum (*Eucalyptus cladocalyx*). Eucalyptus woodland is not considered a sensitive vegetation community by the City of Santee and is classified by the City of San Diego as a Tier IV upland. Lands designated as Tier IV are not considered to have significant habitat value, and impacts would not be considered significant (City of San Diego 2018).

3.2.1.8 Fresh Water: 64140

This community represents areas of year-round bodies of fresh water in the form of lakes, streams, ponds or rivers. These are areas of open water, and vegetation cover is usually less than 10%.

A total of 5.31 acres of fresh water was identified within the BSA (Table 3-1; Figure 4). These are primarily associated with sections of San Diego River (North Channel) that are too deep to support emergent wetland vegetation (freshwater marsh). Most of the area mapped as fresh water is in the two large ponds in San Diego River (North Channel) to the southeast of the existing golf course clubhouse. Within the City of San Diego, this landcover type is equivalent to a natural flood channel. The City of San Diego considers natural flood channel to be an ESL wetland, and impacts are generally prohibited; impacts would require an ESL Deviation to be approved by the City of San Diego (City of San Diego 2018). The City of Santee does not have a similar designation, but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.9 Mule Fat Scrub – disturbed: 63310

Mule fat scrub is a shrubby riparian scrub community dominated by mule fat (*Baccharis salicifolia*) and occasionally interspersed with small willows (*Salix* spp.). This vegetation community occurs along intermittent stream channels with a coarse substrate and moderate water depth, along areas with shallow groundwater, or along areas that receive runoff from roads and other structures (Holland 1986). In some environments, limited hydrology may favor the persistence of mule fat.

A total of 0.87 acres of mule fat scrub was identified within the BSA, exclusively within the City of Santee (Table 3-1; Figure 4). Within the BSA, mule fat scrub community species included mule fat with an understory of black mustard and field mustard. The City of Santee does not have a similar designation but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.10 Non-Native Grassland: 42200

Non-native grassland contains a dense to sparse cover of annual grasses. It may include showy-flowered native annual forbs, but grasses make up over 50% of the cover. In San Diego County the presence of wild oats (*Avena* spp.), bromes (*Bromus* spp.), storksbill (*Erodium* spp.), and wild barley (*Hordeum murinum*) are common indicators.

A total of 0.11 acres of non-native grasslands was identified with the BSA, exclusively within the City of Santee, in small openings adjacent to native riparian habitats (Table 3-1; Figure 4). The City of Santee considers it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.11 Non-Native Riparian: 65000

Non-native riparian includes densely vegetated riparian thickets dominated by non-native, invasive species. This community may include native riparian species but will have over 50% cover of non-native species. This community often occurs in areas where disturbance has occurred and is extensive along the major rivers of coastal Southern California. Non-native riparian may include giant reed, tamarisk (*Tamarix* spp.), and/or eucalyptus, but will not have over 50% cover of those species. Other common invasive species include Mexican fan palm (*Washingtonia robusta*), Canary Island date palm (*Phoenix canariensis*), castor bean (*Ricinus communis*), and gum trees.

A total of 0.31 acres of non-native riparian was identified within the BSA, exclusively within the City of Santee (Table 3-1; Figure 4). This was associated with a bank of San Diego River (North Channel) that was dominated by Mexican fan palm and myoporum (*Myoporum* spp.). The City of Santee considers it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.12 Non-Native Woodland: 79000

The non-native woodland community applies to woodlands of exotic trees that are not maintained or artificially irrigated (i.e., not ornamental plantings). This is a catch-all for non-native woodland communities not dominated by eucalyptus or tamarisk.

A total of 0.52 acres of non-native woodland was identified within the BSA exclusively within the City of Santee (Table 3-1; Figure 4). This community was nearly exclusively Brazilian pepper tree (*Schinus terebinthifolia*). This is not considered a sensitive vegetation community. Non-native woodland is considered by City of San Diego as a Tier IV upland. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant (City of San Diego 2018).

3.2.1.13 Southern Cottonwood-Willow Riparian Forest: 61330

Southern cottonwood willow riparian forest is a tall, open, broadleaved, winter deciduous riparian forest dominated by Fremont's cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and red willow (*Salix laevigata*). Areas with the 'disturbed' moniker for this community represents areas with a more open, sparse understory of arroyo willow and non-native grasses, lacking the diverse and dense canopy of southern cottonwood-willow riparian forest.

A total of 23.87 acres of southern cottonwood-willow riparian forest was identified within the BSA with the majority of this community occurring with the 100-foot buffer outside the project site (Table 3-1; Figure 4). An additional 9.45 acres of this community was identified as *disturbed* within the BSA at San Diego River (North and South Channels). Within these areas, the community was

dominated by large riparian trees such as Fremont's cottonwood, Goodding's black willow, and western sycamore (*Platanus racemosa*), with an understory of arroyo willow (*Salix lasiolepis*), mule fat, poison hemlock (*Conium maculatum*), poison oak (*Toxicodendron diversilobium*), rushes (*Juncus* spp.), flatsedge (*Cyperus eragrostis*), black mustard, field mustard, bromes, wild oats, perennial ryegrass (*Festuca perennis*), and wild barley. Within the City of San Diego, this would be categorized as a type of riparian forest. The City of San Diego considers riparian forest to be an ESL wetland, and impacts are generally prohibited; impacts would require an ESL Deviation to be approved by the City of San Diego (City of San Diego 2018). The City of Santee does not have a similar designation, but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.1.14 Southern Riparian Scrub: 63320

Southern riparian scrub is a broadleaved, winter-deciduous, dense riparian vegetation community dominated by several willow species, occasionally containing scattered Fremont's cottonwood or western sycamore trees. Associated plant species may include Douglas mugwort (*Artemisia douglasiana*) or hoary nettle (*Urtica dioica* ssp. *holosericea*). Most stands are too dense to allow much understory growth.

A total of 0.98 acres of southern riparian scrub was identified within the BSA, exclusively outside of the project site, but within the BSA (Table 3-1; Figure 4). Southern riparian scrub within the BSA was dominated by arroyo willow (*Salix lasiolepis*), mule-fat, and broom baccharis. The City of San Diego considers riparian scrub to be an ESL wetland, and impacts are generally prohibited (City of San Diego 2018). The City of Santee does not have a similar designation, but does consider it a sensitive community and is addressed within the Draft Subarea Plan.

3.2.2 Flora

One hundred thirty-seven species of plants were observed within the BSA, including 78 native and 59 non-native species. These represent plants associated with all vegetation communities and land cover types identified in the BSA.

3.2.2.1 Special-Status Plant Species

No City of San Diego MSCP covered plant species were observed within the BSA, and no CESA- or ESA-listed plant species were observed within the BSA. Four special-status plant species listed under the CRPR were observed within the BSA within the City of San Diego: Palmer's sagewort (*Artemisia palmeri*), San Diego marsh-elder (*Iva hayesiana*), southern California black walnut (*Juglans californica* var. *californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) (Figure 5). California black walnut and southwestern spiny rush were observed within avoidance areas within the proposed project area in the City of San Diego and would not be impacted. Palmer's sagewort and San Diego marsh-elder were present within the BSA buffer but were not detected in the proposed project area. Southwestern spiny rush was the only special status plant species observed within City of Santee and was only present outside of the proposed project site (near the San Diego River).

San Diego marsh-elder is a CRPR 2B.2 species and is therefore considered rare or endangered under CEQA Guidelines Section 15380. Palmer's sagewort, southern California black walnut, and southwestern spiny rush are CRPR 4.2 species. These species are plants of limited distribution but are locally common. These CRPR 4.2 species do not clearly meet CEQA standards and thresholds for

impact considerations. These populations do not have local rarity, are not peripheral to the taxa's distribution, and do not occur in unusual substrates or habitat. Palmer's sagewort, southern California black walnut, and southwestern spiny rush are therefore not considered endangered, rare, or threatened under CEQA.

No San Diego ambrosia were observed within the BSA during focused surveys conducted for San Diego ambrosia; these surveys occurred in 2019 and 2022 at times of the year when San Diego ambrosia would be most readily detectable. San Diego ambrosia is a narrow endemic in the City of San Diego MSCP Subarea Plan (City of San Diego 1997). It typically occurs on terraces of creek beds, seasonally dry drainages, and floodplains outside of tree canopy. It is often associated with riverwash and sandy alluvium such as those present in the BSA. San Diego ambrosia is considered absent from the BSA because of negative results from the focused surveys.

Southwestern spiny rush was the only special-status plant species observed within the City of Santee. No other special status plant species are expected to occur within the City of Santee because of negative results from focused surveys.

Palmer's Sagewort (*Artemisia palmeri*)

CRPR 4.2

Palmer's sagewort is primarily found along creeks and drainages near the coast but may also occur in mesic chaparral in inland locations. It is typically found in understory beneath riparian woodland (Reiser 2001). This species was observed within the BSA in the City of San Diego in the San Diego River (South Channel) riparian area outside of the project site (Figure 5).

San Diego Marsh Elder (*Iva hayesiana*)

CRPR 2B.2

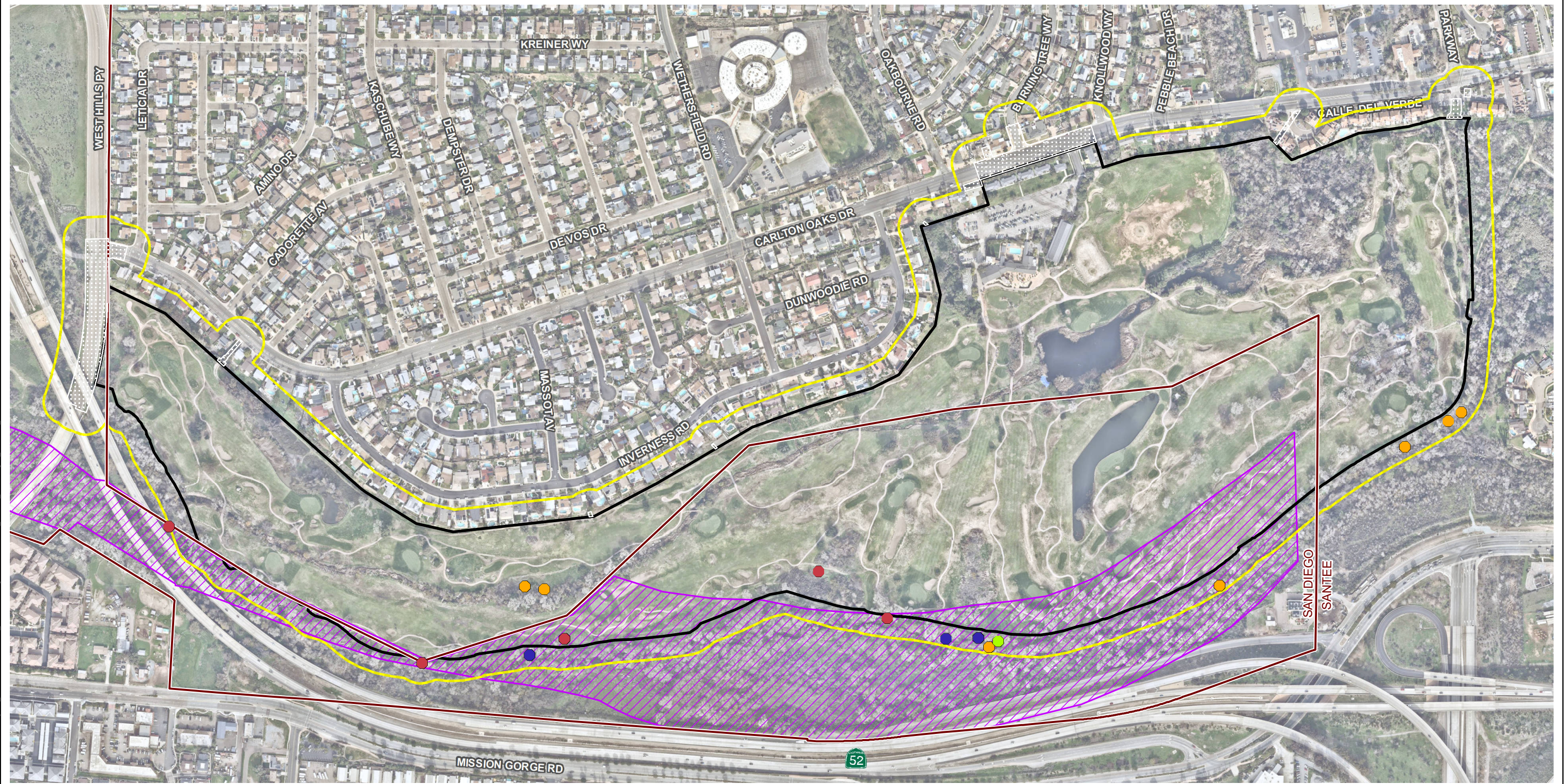
San Diego marsh elder is a species that is fairly endangered in California but more common elsewhere (i.e., in Mexico). This species primarily occurs in creeks or intermittent streambeds. It will also occur in seeps or other mesic areas. It is often found in sunny openings where other riparian vegetation is not present (Reiser 2001). This species was observed within the BSA in the City of San Diego in the San Diego River (South Channel) riparian area; no San Diego marsh elder was observed within the project site (Figure 5).

Southern California Black Walnut (*Juglans californica* var. *californica*)

CRPR 4.2

Southern California black walnut is listed as a CRPR 4.2 species, which is a watch list species with a limited distribution. Southern California black walnut is a tree that grows to 20 to 50 feet tall, often in open savanna. This species shows preference for deep alluvial soils but may also be more tolerant of clays than other tree species (Reiser 2001). This species is rare in San Diego County but more common and widespread in Orange, western Riverside, and Los Angeles Counties. Several individuals were observed within the San Diego River (South Channel) riparian area (Figure 5). Two Southern California black walnuts were observed within wetland avoidance areas in the project site within the City of San Diego (Figure 5). Additional southern California black walnut individuals were previously mapped outside of the project site, but within the BSA in the San Diego River (South Channel) (HELIX 2017); these were determined by ICF botanists to be non-native pecan (*Carya illinoensis*).

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- Project Site
- Biological Study Area
- Offsite
- City of Santee/San Diego Municipal Boundary
- City of San Diego MHPA

Sensitive Plant Species

- Palmer's sagewort (*Artemisia plamerii*)
- San Diego marsh-elder (*Iva Hayesiana*)
- Southern California black walnut (*Juglans californica*)
- Southwestern Spiny Rush (*Juncus acutus*)

Source: Biological Resources-ICF (2022); Imagery-SANGIS (2023)

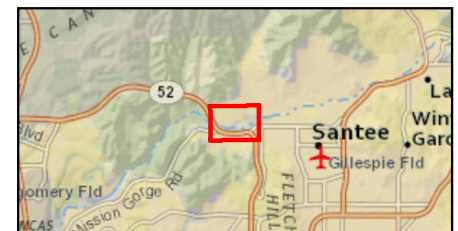
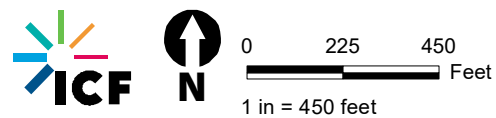


Figure 5
Sensitive Plant Species
Carlton Oaks Country Club and Resort

Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*)

CRPR 4.2

Southwestern spiny rush is a large, distinctive bushy rush common in marshes and wet drainages throughout coastal San Diego County (Reiser 2001). Within the BSA, this species was identified within the San Diego River (North Channel) within the City of Santee and the San Diego River (South Channel) within the City of San Diego (Figure 5). Other previous reports of this species within the project site (HELIX 2017) were identified by ICF botanists as other non-sensitive *Juncus* species. Two individuals of Southwestern spiny rush were mapped within avoidance areas within San Diego River (North Channel) in the project site and would not be impacted (Figure 5). The remaining five populations were observed within the BSA in the City of San Diego in the San Diego River (South Channel) riparian area outside of the project site (Figure 5).

3.2.3 Fauna

Three species of reptile were detected within the BSA: painted slider (*Chrysemys picta*), western fence lizard (*Sceloporus occidentalis*), and side-blotched lizard (*Uta stansburiana*). Two species of amphibians were identified: American bullfrog (*Rana catesbiana*) and Baja California chorus frog (*Pseudacris hypochondriaca*). One fish species, bluegill (*Lepomis macrochirus*), was captured during pond turtle trapping surveys.

Sixty-five bird species were observed or detected within the BSA. This includes birds typical of golf course and riparian vegetation communities. Year-round residents include California towhee (*Melospiza crissalis*) and Bewick's wren (*Thryomanes bewickii*). Summer breeding species (neotropical migrants) utilizing the BSA include four special-status species: least Bell's vireo, vermilion flycatcher (*Pyrocephalus rubinus*), yellow warbler (*Setophaga petechia*), and yellow-breasted chat (*Icteria virens*).

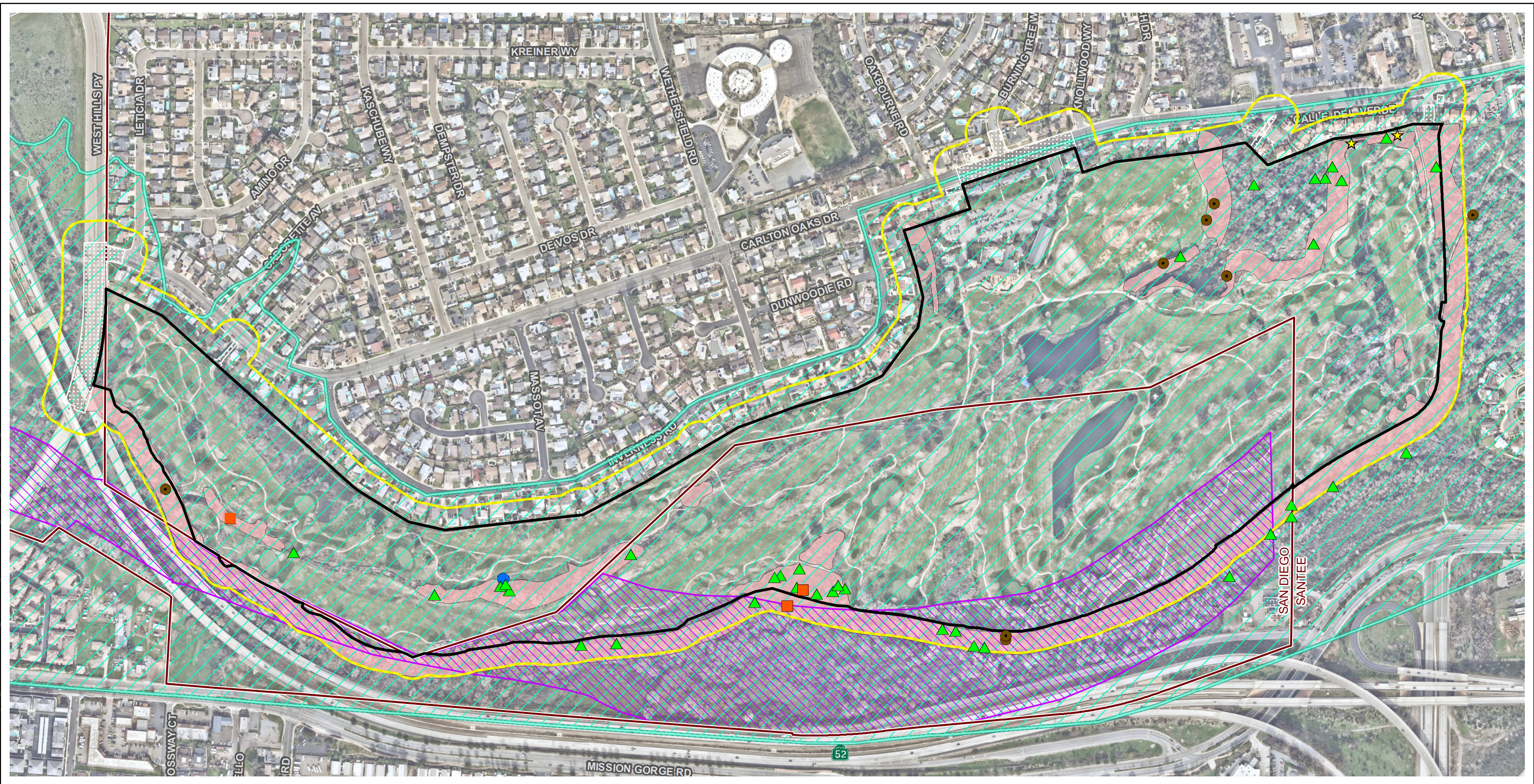
Six mammal species were detected within the BSA: California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), northern raccoon (*Procyon lotor*), desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), and southern mule deer (*Odocoileus hemionus* ssp. *fuliginatus*), the latter of which is an MSCP-covered species.

Special-status species observed or detected, and the results of the focused biological surveys, are discussed further below.

3.2.3.1 Special-Status Animal Species

Focused, protocol-level surveys were conducted for ESA-listed species least Bell's vireo, southwestern pond turtle, coastal California gnatcatcher, and southwestern willow flycatcher in 2019. Focused surveys in 2019 and 2022 revealed multiple breeding pairs of least Bell's vireo throughout the BSA (Figure 6). Focused surveys or habitat assessments conducted for southwestern pond turtle, California gnatcatcher, southwestern willow flycatcher, western burrowing owl, Crotch's bumble bee, and western spadefoot were negative, and the species were therefore considered to be absent from the BSA (see Section 3.2.3.3). Other ESA species were not expected or determined to have low potential to occur based on biological determination, including factors such as of lack of suitable habitat or being outside of the species range (Appendix E).

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- | | | | |
|-----------------------|---|--|---|
| Project Site | City of Santee/San Diego Municipal Boundary | Least Bell's Vireo Critical Habitat | Least Bell's Vireo (<i>Vireo bellii pusillus</i>) Female Male Male with fledgling Pair |
| Biological Study Area | City of San Diego MHPA | Potentially Suitable Habitat | |
| Offsite Areas | | Brown-headed cowbird (<i>Molothrus ater</i>) | |
| | | | |
| | | | |

Source: Biological Resources-ICF (2022); Imagery-SANGIS (2023)

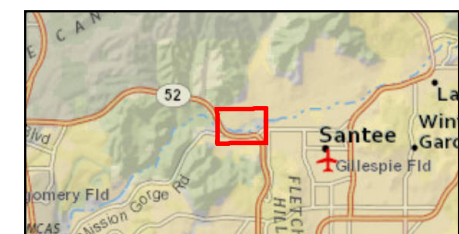
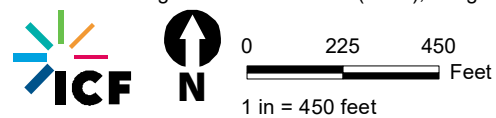


Figure 6
Least Bell's Vireo Distribution
Carlton Oaks Country Club and Resort

Federal candidate insect species Monarch butterfly (*Danaus plexippus*) was observed nectaring on flowers within the project area; no suitable milkweed breeding habitat was observed. Six non-listed special-status species birds were incidentally detected during focused surveys or other biological surveys within the BSA: Cooper's hawk (*Accipiter cooperi*), a double-crested cormorant (*Phalacrocorax auritus*) rookery, vermilion flycatcher (*Pyrocephalus rubinus*), western bluebird (*Sialia mexicana*), yellow warbler, and yellow-breasted chat (Figure 7). One MSCP-covered mammal species—southern mule deer—was observed.

Cooper's Hawk (*Accipiter cooperi*)

CDFW Watch List, MSCP San Diego Subarea Plan – Covered Species

Cooper's hawk is originally a species found in oak groves and riparian woodland but has recently adapted to urban eucalyptus woodland environments (Unitt 2004). The species is now a year-round breeder within the coastal slope of San Diego County. They are most numerous in lowland and foothill canyons and urban areas. Cooper's hawk nests high in trees but still hidden under the canopy. This species most frequently nests in gum trees and oaks. Additional winter visitors also occur, primarily from September to March.

One observation occurred within riparian habitat along the San Diego River (South Channel), outside the project site. Approximately 34 acres of suitable riparian forest nesting habitat was present within the BSA; no nests or nesting activity were observed during avian surveys, though suitable nesting habitat exists in trees throughout the cities of Santee and San Diego (Figure 7).

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

Federally Endangered, California Endangered, MSCP San Diego Subarea Plan – Narrow Endemic and Covered Species

Least Bell's vireo is a neotropical migratory songbird that generally arrives in San Diego County in March and April and leaves by August or September. Banding studies show that the birds have high site fidelity and often return to the same locations (Unitt 2004). Least Bell's vireo is highly restricted to willow and mule fat scrubs and riparian woodlands (Unitt 2004). Riparian woodland supporting least Bell's vireo typically has a dense canopy where the birds forage and a dense understory where they nest (Unitt 2004). The population in San Diego County is concentrated in riparian areas along the coastal lowlands, especially along the Santa Margarita River and along the San Luis Rey River (Unitt 2004). Other major sites include the San Dieguito River above Lake Hodges, San Diego River from Interstate 805 to Santee, the Sweetwater River above Sweetwater Reservoir, Jamul and Dulzura Creeks, Otay River, and the Tijuana River Valley (Unitt 2004). Least Bell's vireo have declined because of riparian habitat loss and degradation throughout Southern California and the Central Valley. Additionally, habitat fragmentation increases susceptibility of vireo nests to brood parasite brown-headed cowbird (USFWS 1998).

Least Bell's vireo were observed in 2019 within and adjacent to the San Diego River (South Channel) riparian area and in some of the suitable habitat the northeastern side of the BSA (Figure 6). No vireo were detected along San Diego River (North Channel) or Sycamore Canyon Creek within the golf course or in the riparian forest associated with the stormwater outfall in the north-central area of the BSA in 2019. Four territories of male least Bell's vireo were observed throughout the breeding season (Appendix H). While females are less visible than the vociferous males, pairs of least Bell's

vireo were detected within habitat along the northeastern boundaries of the BSA. Breeding was also confirmed with the observation of fledglings in the south-central portion of the BSA (Figure 6).

Least Bell's vireo were observed throughout suitable habitat in the cities of San Diego and Santee 2022 (Figure 6, Appendix H-2). One least Bell's vireo territory was observed in the northeast portion of the project site, adjacent to the driving range in Sycamore Canyon Creek. Two territories were observed in San Diego River (North Channel) on the western side of the project area (Figure 6). Both of these territories included evidence of nesting activity. Several other least Bell's vireo individuals were heard singing within the limits of the San Diego River (South Channel), but locations were not mapped because the San Diego River (South Channel) is known to be occupied (e.g., 2019 survey results) and is assumed to be occupied for this analysis. No least Bell's vireo were observed in the riparian area to the west of the existing golf clubhouse (Residential North in City of Santee).

The entire project site and most of the BSA is within designated USFWS Critical Habitat for least Bell's vireo (Figure 6). The primary constituent elements to support the feeding, nesting, roosting, and sheltering of least Bell's vireo are present in riparian woodland vegetation that generally contains both canopy and shrub layers. All riparian woodland vegetation within the BSA was included in the survey area for least Bell's vireo (Figure 6). The remainder of the BSA within the USFWS Critical Habitat does not contain primary constituent elements for least Bell's vireo; golf course vegetation outside of the riparian areas are not suitable habitat. Riparian habitat, including southern cottonwood-willow riparian forest, along the San Diego River (South Channel) and the northeastern corner of the site, are considered occupied habitat. The USFWS Carlsbad Fish and Wildlife Office species occurrence data (USFWS 2018) also showed that least Bell's vireo were observed along the San Diego River (South Channel) in the southwestern area near West Hills Parkway in 2016. All mule-fat scrub and southern cottonwood-willow riparian forest in the BSA, with the exception of the isolated 0.37-acre riparian patch to the west of the existing golf clubhouse (between golf course and existing housing), were determined to be occupied by least Bell's vireo. Vireo were confirmed absent in the isolated riparian patch through protocol surveys conducted in 2019 and 2022.

Monarch Butterfly (*Danaus plexippus*)

Federal Proposed Threatened

The California overwintering populations of Monarch butterfly roosts in large trees, often eucalyptus, within frost-free areas generally within 1-mile of the coast. Interior valleys such as Santee are subject to winter frosts and are therefore wholly unsuitable as overwintering habitat. Monarch species exclusively utilizes milkweed (*Asclepias* spp.) as larval host plants for breeding (USFWS 2024). Native milkweed are found in a variety of habitats in San Diego County, but no milkweed were observed within the BSA during focused surveys. Adult monarch will nectar on a variety of short-corolla flowers in natural and urbanized landscapes. Monarch was incidentally observed, during surveys for Crotch's bumble bee, nectaring on native and ornamental vegetation.

Southern Mule Deer (*Odocoileus virginianus fuliginatus*)

MSCP San Diego Subarea Plan – Covered Species

Mule deer are widespread across western North America and the southern subspecies occupies all of San Diego County's ecoregions (Tremor et al. 2017). Southern mule deer inhabit a wide array of habitats from coastal sage scrub to chaparral, oak woodland, riparian woodland, montane conifer-

hardwood forest, and desert scrub. Southern mule deer are typically smaller than other deer in California. Besides habitat loss and fragmentation, poor habitat quality is the greatest factor limiting the size of the mule deer populations (Tremor et al. 2017). This species was observed utilizing the golf course at the edge of the riparian corridor along the San Diego River (South Channel)(Figure 7). This species could utilize any of the golf course within the cities of Santee and San Diego during the nighttime.

Vermilion Flycatcher (*Pyrocephalus rubinus*)

CDFW Species of Special Concern

Vermilion flycatcher is a brightly colored neotropical migrant songbird. Its' characteristic habitat of open riparian woodland and mesquite bosques on desert floodplains habitats is barely represented in San Diego County (Unitt 2004). In coastal San Diego County, this species rarely occurs, but is most nests associated with open man-made 'savannas' such as golf courses, graveyards, and large campgrounds. The species nests in forks in the middle level of trees (Unitt 2004), making the species vulnerable to brown-headed cowbirds. One individual was incidentally observed during surveys in 2024 (Figure 7) and could utilize suitable trees within the cities of Santee and San Diego.

Western Bluebird (*Sialia mexicana*)

MSCP San Diego Subarea Plan – Covered Species

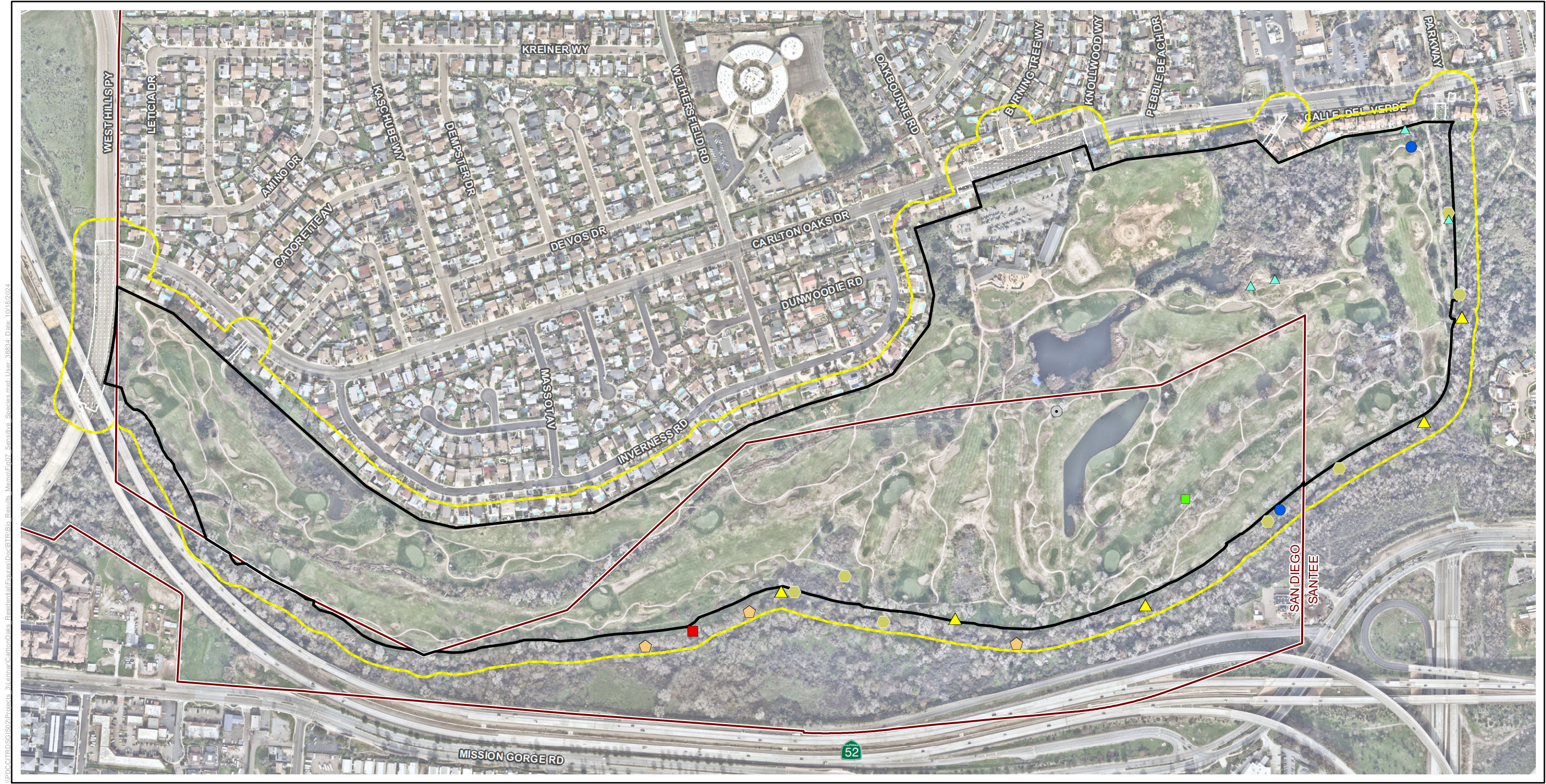
The western bluebird is a stocky blue bird with a chestnut chest and is considered common in the foothills and mountains of San Diego County. This species can usually be found in montane coniferous and oak woodlands (Unitt 2004). It can also occur in areas with scattered trees, open forests, and scrubs, and during the winter it can be found in the desert. Western bluebirds breed in western North America from southern British Columbia south to central Mexico, east to western Montana, and west to Texas, but are absent from the Great Basin (Guinan et al. 2020). They can also winter outside their breeding range in central California and along the lower Colorado River (Guinan et al. 2020). Western bluebird numbers are declining due to loss of nesting cavities to logging, fire suppression, and competition with nonnative species such as European starling and house sparrow (*Passer domesticus*) (Unitt 2004). This species is still fairly common in San Diego County (Unitt 2004). Several individuals were observed within suitable riparian forest habitat along the San Diego River (South Channel)(Figure 7) and could utilize suitable trees within the cities of Santee and San Diego.

Yellow-Breasted Chat (*Icteria virens*)

CDFW Species of Special Concern

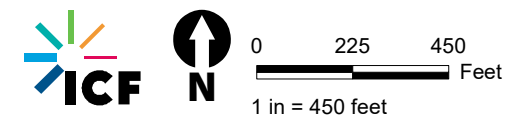
The yellow-breasted chat is a common summer breeding visitor that prefers to nest in extensive dense thickets of riparian habitat (Unitt 2004). This species is very secretive, so finding its nests is a challenge. The decline of this species is linked to the loss of riparian woodlands in the coastal lowland as a result of development, agriculture, and channeling rivers. This species is still considered a common species in San Diego County. Yellow-breasted chats were observed throughout suitable riparian forest habitat along the San Diego River (South Channel). Suitable nesting and foraging habitat for this species occurs throughout the riparian forest in avoidance areas in the south-central and northeastern areas of the project site in the cities of Santee and San Diego (Figure 7).

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- | | | |
|--|--|--|
| <div><div></div> Project Site</div> <div><div></div> Biological Study Area</div> <div><div></div> Offsite Areas</div> <div><div></div> City of Santee/San Diego Municipal Boundary</div> | Other Sensitive Species* <div><div></div> Cooper's hawk</div> <div><div></div> Double-crowned cormorant rookery</div> | <div><div></div> Southern mule deer</div> <div><div></div> Western bluebird</div> <div><div></div> Yellow warbler</div> <div><div></div> Yellow-breasted chat</div> <div><div></div> Monarch Butterfly</div> <div><div></div> Vermilion Flycatcher</div> |
|--|--|--|

Source: Biological Resources-ICF (2022); Imagery-SANGIS (2023)



*Least Bell's Vireo Observations are on Figure 6.

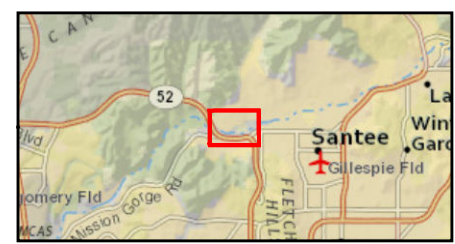


Figure 7
Other Sensitive Species
Carlton Oaks Country Club and Resort

Yellow Warbler (*Setophaga petechia*)

CDFW Species of Special Concern

The yellow warbler is a small insectivorous migratory passerine that inhabits lowland and foothill mature riparian woodlands (Unitt 2004). Preferred plant species include cottonwoods, willows (*Salix* spp.), and other small trees and shrubs typically found in open-canopy riparian woodlands. Yellow warblers are usually on their breeding grounds from late March to mid-October. Destruction and degradation of riparian habitat and brood parasitism by the brown-headed cowbird led to the decline of this species (Unitt 2004). However, cowbird trapping has caused an increase in population, and yellow warblers are considered fairly common in San Diego County (Unitt 2004). Yellow warblers were observed throughout suitable riparian forest habitat along the San Diego River (South Channel) where suitable nesting and foraging habitat occurs, in the cities of Santee and San Diego (Figure 7).

3.2.3.2 Animal Species with High Potential to Occur

Two special-status reptile and one special-status avian species were determined to have high potential to occur within the BSA but were not detected incidentally during other biological surveys. These include Belding's orange-throated whiptail (*Aspidocelis hyperythra hyperythra*), two-striped garter snake (*Thamnophis hammondi*), and white-tailed kite (*Elanus leucurus*). These represent locally common species that occur in limited ranges, or species that have been affected by development. Although focused surveys were not conducted to determine the presence/absence of these species, there is a reasonable assumption that these species will variably utilize the habitats within the BSA because of the suitability of the habitat and the local distribution of these species. Therefore, these species are treated as if they are present for this analysis.

Belding's Orange-Throated Whiptail (*Aspidocelis hyperythra hyperythra*)

CDFW Watch List; MSCP San Diego Subarea Plan – Covered Species

Belding's orange-throated whiptail occurs in low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats (Zeiner et al. 1988). Orange-throated whiptail occurs in Orange, Riverside, and San Diego Counties west of the crest of the Peninsular Ranges and in southwestern San Bernardino County near Colton. It extends up to 3,410 feet above mean sea level (Zeiner et al. 1988). Orange-throated whiptails forage on the ground and scratch through surface debris for food. Their diet consists of a variety of small arthropods, especially termites. Orange-throated whiptails likely lay eggs in loose, well-aerated soil under or near surface objects or at the base of dense shrubs (Zeiner et al. 1988). Although this species was not observed during the 2019 surveys, it has high potential to utilize the peripheries of riparian areas within the BSA within the cities of Santee and San Diego.

Two-Striped Garter Snake (*Thamnophis hammondi*)

CDFW Species of Special Concern

The two-striped garter snake is a medium-sized snake found in or near permanent and intermittent freshwater streams, creeks, and pools in vegetation communities including willow, oak woodlands, cedar, coastal sage scrub, sparse pine, scrub oak, and chaparral. While generally considered to be a very aquatic species, terrestrial upland habitats and rodent burrows are important habitat

components for this species. The two-striped garter snake feeds on a variety of prey including fish, fish eggs, frogs, salamanders, leeches, and earthworms. Two-striped garter snake occurs in California from Salinas, Monterey County, south along the coast into Baja California, Mexico, in the South Coast, Peninsular, and Transverse Ranges, primarily west of the deserts with populations also occurring in some perennial desert slope streams in San Bernardino, Riverside, and San Diego Counties (Thomson et al. 2016). Although this species was not observed during the 2019 surveys, it has high potential to utilize San Diego River (North Channel) and Sycamore Canyon Creek within the BSA within the cities of Santee and San Diego.

White-Tailed Kite (*Elanus leucurus*)

CDFW Fully Protected

White-tailed kite is found in lower elevations in open grasslands, agricultural areas, wetlands, and oak woodlands. Its primary source of food is the California vole (*Microtus californicus sanctidiegi*) (Unitt 2004). It typically forages in open, undisturbed habitats and nests in the top of dense oaks, willows, or other large trees (Unitt 2004). The white-tailed kite population is on the decline mostly because of habitat loss associated with urban sprawl; however, this species is still considered fairly widespread throughout the foothills of San Diego County (Unitt 2004).

Although this species was not observed during the 2019 or 2022 surveys, suitable nesting habitat is present in the trees within the golf course and riparian habitats in the BSA. This species was observed off site within the San Diego River (North Channel) in 2016 (HELIX 2017). This species could nest in trees throughout the cities of Santee and San Diego.

3.2.3.3 Animal Species Determined to Be Absent During Focused Surveys

Southwestern Pond Turtle

Southwestern pond turtle is a federal proposed threatened species, CDFW species of special concern, and an MSCP San Diego Subarea covered species. They are a small to medium size drab-colored diurnal aquatic turtle that are typically active in February through November, inhabiting slack-water ponds with basking areas out of the water, including rocks and logs.

No southwestern pond turtles were captured nor observed during the 2019 focused trapping study or 2022 visual survey, which suggests this species is not present within the BSA. Turtle trapping was conducted at four sites within Pond A for 4 days and 3 nights between September 3 and September 6, 2019. Weather conditions during the trapping dates were favorable for pond turtles (Appendix F). No southwestern pond turtles were observed within suitable pond habitat during visual surveys conducted in 2022 within natural and artificial ponds within the cities of Santee and San Diego.

Eleven nonnative red-eared sliders were captured, including two that were melanistic (red-eared sliders that have a similar appearance to southwestern pond turtles). The presence of melanistic red-eared sliders suggests that visual surveys alone of the site would not have allowed for reliable identification of southwestern pond turtles within the pond.

Southwestern Willow Flycatcher

Southwestern willow flycatcher is listed as federally endangered and California endangered; it is also an MSCP San Diego Subarea Plan covered species. Southwestern willow flycatcher is a neotropical migratory songbird that generally arrives in San Diego County in April and leaves by August, and is the only subspecies known to breed in San Diego County (Unitt 2004). Willow flycatchers of the southwestern subspecies, as well as willow flycatchers of other subspecies, may move through San Diego County during migration.

No southwestern willow flycatcher or migrant willow flycatchers were observed or detected during protocol surveys in 2019 (Appendix H). Therefore, this species was determined to be absent from the survey area.

To provide context for the negative survey results, a review of the Carlsbad Fish and Wildlife Office occurrence data and CDFW CNDDDB shows an absence of recent records of southwestern willow flycatcher in the lower San Diego River valley and a 5-mile radius of the BSA. The southern cottonwood-willow riparian forest associated with the San Diego River (South Channel) and Forester Creek supports southwestern willow flycatcher habitat constituents and was determined to be moderately suitable habitat for this species. Southwestern willow flycatcher typically prefer habitat where surface water is present or soil moisture is high enough to maintain the appropriate vegetation characteristics (Sogge et al. 2010); surface water was present during the southwestern willow flycatcher surveys. There were also portions of the survey area that supported the canopy structure and herbaceous understory preferred by southwestern willow flycatcher. However, much of the riparian habitat was dominated by plant species associated with marginal southwestern willow flycatcher habitat, such as cottonwoods and the nonnative shamel ash (*Fraxinus uhdei*). A wider aerial view indicates that besides the golf course, the riparian habitat within the BSA is surrounded by development, including freeways that produce a significant amount of noise. Commuter traffic noise is especially loud along the western portion of the survey area. San Diego River (South Channel) within the golf course does not have appropriate vegetative structure for this species. The riparian scrub habitat and ephemeral drainage at the northeastern corner of the site does not contain suitable vegetation constituents for this species. Surveys were not updated in 2022 because no suitable habitat is present in the project area; moderate quality habitat for the species is only found in the survey area buffer along the San Diego River (South Channel), within the cities of San Diego and Santee.

Coastal California Gnatcatcher

Coastal California gnatcatcher is listed as federally threatened species, CDFW species of special concern, an MSCP San Diego Subarea Plan covered species. Coastal California gnatcatcher is a resident songbird highly associated with coastal sage scrub vegetation communities (Unitt 2004).

No California gnatcatcher were observed or detected during six protocol surveys in 2019, which were conducted within suitable habitat inside or within 500 feet of the project site within the Cities of Santee and San Diego. No California gnatcatcher were observed or detected during six protocol surveys in 2022, which were conducted within suitable habitat inside or within 300 feet of the project site. Therefore, this species was determined to be absent in 2019 and 2022 (Appendix G). While this species is known from the vicinity in Mission Trails and Santee, the potential habitat within the project site is very disturbed, limited in extent (<1 acre) and isolated

from other potential habitat; therefore, California gnatcatcher are unlikely to utilize this habitat in the future.

Crotch's Bumble bee

Crotch's bumble bee was reinstated as a candidate species under CESA on September 30, 2022, and now receives the same protections as a state threatened species until a final decision is made regarding its status by the Fish and Game Commission. Crotch's bumble bee is nearly endemic to California, including historically occupied grasslands and shrublands in Southern to Central California, and occasional records in the northern portion of the state (CDFW 2019b). This species is often found in scrub or open grassland habitats that support a variety of pollen and nectar sources. Crotch's bumble bee has a short tongue and is best suited for foraging at open flowers with short corollas (CDFW 2019b). The vast majority of the project site is a developed golf course with limited ornamental nectar resources. The Diegan coastal sage scrub and disturbed habitat found within the project footprint have low abundance and diversity of nectar resources. This species has been photographed using nectar resources in the adjacent Mast Park (iNaturalist 2023) and may use nectar resources adjacent to wetlands within avoidance areas within the project site. No Crotch's bumble bee were observed or detected during four protocol surveys in 2024, which were conducted within suitable habitat within the BSA (Appendix M). Crotch's bumble bee is considered currently absent from the BSA but has potential to move into suitable habitat in the project area prior to construction.

3.2.3.4 Other Listed and Candidate Animal Species

Quino Checkerspot Butterfly

Quino checkerspot butterfly is listed as federally endangered. Because the BSA consists of a golf course and other developed areas, ponds, and riparian areas that are all unsuitable with respect to supporting Quino checkerspot butterfly, the entire site was determined to be entirely excludable habitat, and no surveys were recommended. Quino checkerspot butterfly is considered absent from the project site.

Western Burrowing Owl

Western burrowing owl was named a candidate species for listing under CESA on October 10, 2024. As such, it receives the same protections as a state threatened species until a final decision has been made on its status by the California Fish and Game Commission. The species may be found throughout much of California and west of the Mississippi River where suitable habitat occurs. Although some open habitats occur within the BSA, no requisite suitably sized burrows were present. Therefore, suitable habitat was not present, and the species is considered absent from the BSA. However, it still has potential to move onto the project site prior to construction if suitable burrows become available.

Western Spadefoot

Western spadefoot is currently a federal candidate for listing and a California Species of Special Concern. A habitat assessment for the species found there to be low potential for the species to occur due to marginal back-water areas adjacent to the San Diego River and possible stagnant ponded areas within other riparian zones in the BSA outside of the development footprint. A

follow-up survey in 2025 confirmed marginal habitat, and a survey of potentially suitable pooled areas was negative.

3.3 Jurisdictional Waters and Wetlands

Within the project site, 10 features, including two excluded golf course ponds and one concrete V-ditch within the delineation area, were identified, evaluated, and mapped for potential USACE, RWQCB, and CDFW jurisdiction pursuant to the regulations described in Section 1.4, *Regulatory Setting*. Each feature evaluated within the proposed project site is depicted on Figure 8, described below, and summarized in Tables 3-2 and 3-3.

Table 3-2. Summary of USACE and RWQCB Aquatic Resources Within the Project Site (including Avoidance Areas)

| Feature | Linear Feet | OHWM Width ¹ | USACE/RWQCB ⁶ | | |
|-----------------------------------|--------------|-------------------------|--------------------------|----------------------|------------------------------|
| | | | Non-wetland | Wetland ⁴ | Excluded Waters ⁵ |
| | | | Acres ² | Acres | Acres |
| Aquatic Resource | | | | | |
| NWW 1 | 7,218 | 54 | 7.48 ³ | -- | -- |
| NWW 2 | 416 | 24 | 0.24 | -- | -- |
| NWW 3 | 139 | 3 | 0.01 | -- | -- |
| NWW 4 | 76 | -- | -- | -- | -- |
| NWW 5 | 163 | 20 | 0.09 | -- | -- |
| WW 1 | -- | -- | -- | 0.05 | -- |
| WW 2 | -- | -- | -- | 0.20 | -- |
| Non-jurisdictional Feature | | | | | |
| EW 1 | -- | -- | -- | -- | 1.77 |
| EW 2 | -- | -- | -- | -- | 1.06 |
| EW 3 | 253 | -- | -- | -- | 0.01 |
| Subtotal | 8,265 | -- | 7.82 | 0.25 | 2.84 |
| Total | 8,265 | -- | 8.07 | | 2.84 |

¹ Based on average OHWM width in the delineation area.

² Total acreage may not add up to the total shown; total is reflective of rounding GIS raw data in each category.

³ Of this, 0.02 acres is concrete/riprap-lined.

⁴ Acreage does not include wetlands within the stream channel (i.e., wetlands below the OHWM).

⁵ 33 CFR 328.3(b)(4)(i) – artificially, constructed lakes and ponds created in dry land are not considered waters of the U.S.

⁶ USACE/RWQCB jurisdiction was not delineated in the large, interior avoidance area on the northeast side of the project site

OHWM = ordinary high-water mark; RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers.

Table 3-3. Summary of CDFW Jurisdictional Resources Within the Project Site (including Avoidance Areas)

| Aquatic Resource | Linear Feet | Top of Bank Width ¹ (feet) | CDFW | | |
|------------------|--------------|---------------------------------------|--|---------------------------|----------------|
| | | | Unvegetated Streambed Acres ² | Vegetated Streambed Acres | Riparian Acres |
| NWW 1 | 7,218 | 65 | 2.970 | 13.708 | 0.476 |
| NWW 2 | 416 | 60 | | 0.606 | |
| NWW 3 | 139 | 6 | | 0.019 | |
| NWW 4 | 76 | N/A | | | 0.059 |
| NWW 5 | 163 | 30 | | 0.122 | 0.214 |
| Subtotal | 8,012 | -- | 2.970 | | 0.749 |
| Total | 8,012 | -- | | 18.175 | |

¹ Based on average width in the proposed project site.

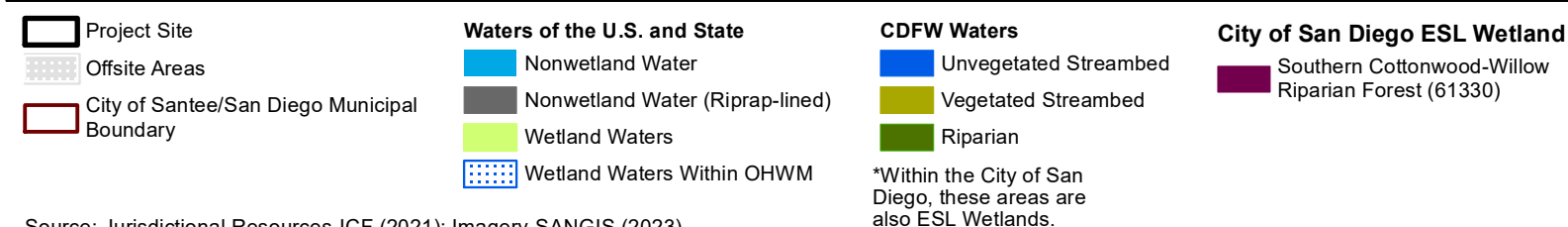
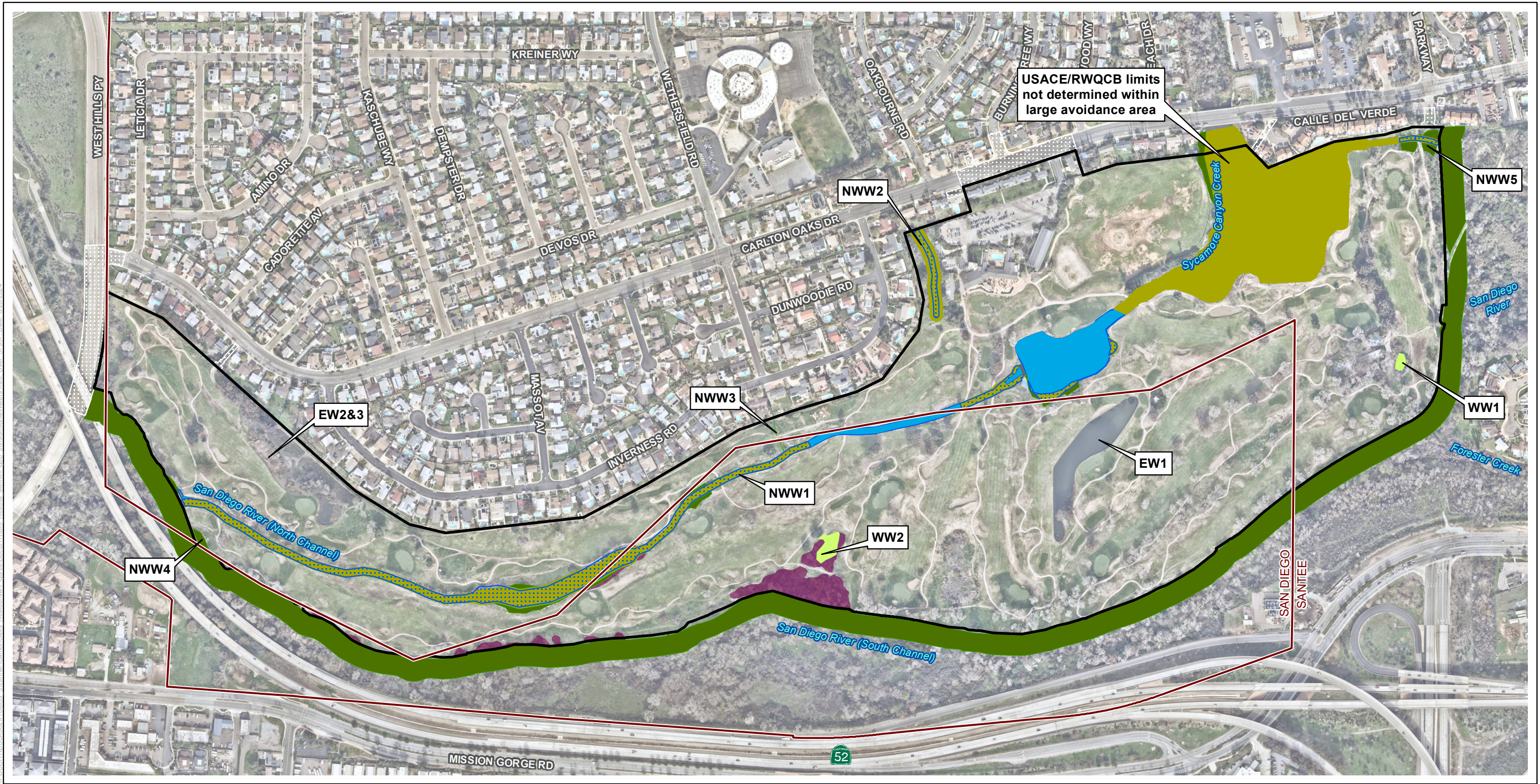
² Total acreage may not add up to the total shown; total is reflective of rounding GIS data in each category.

CDFW = California Department of Fish and Wildlife.

Ten features within the delineation area were identified and mapped for potential USACE, RWQCB, and CDFW jurisdiction. At least 8.07 acres of non-wetland and wetland aquatic resources likely subject to USACE and RWQCB regulatory jurisdiction (i.e., are waters of the State/U.S.) occur within the delineation area (the project site); the full extent of USACE/RWQCB jurisdiction was not determined within sections of NWW1 within Avoidance Areas in the northeast side of the project site, because these areas will not be affected by the project. Additionally, there are 18.175 acres (8,012 linear feet) of streambed and riparian resources that would be subject to CDFW jurisdiction pursuant to Sections 1600–1616 of the California Fish and Game Code. Finally, three of the mapped aquatic resources—EW 1, EW 2, and EW 3—are ornamental and/or artificial aquatic resources, constructed in dry land. These types of features are excluded aquatic resources (33 CFR 328.2[b]) and are not considered waters of the U.S. An approved jurisdictional determination from the USACE was obtained confirming that CWA jurisdiction does not exist over the excluded waters (i.e., EW 1, EW 2, and EW 3) (Appendix I).

Non-Wetland Water (NWW) 1 is an intermittent segment of San Diego River (North Channel) and Sycamore Canyon Creek that is likely regulated by the USACE, RWQCB, and CDFW, and portions within the City of San Diego would be considered City of San Diego ESL Wetlands. NWW 1 is tributary to the San Diego River (South Channel) and has been manipulated due to the construction of the golf course. Prior to construction of the golf course, NWW 1 was the historic main channel of the San Diego River, but the San Diego River main channel was diverted south of the berm along the east and south side of the project site. The lateral limits of NWW 1 are clearly defined by bed and bank, clear break in slope, and change in vegetation cover and species (Appendix I). NWW 1 flows northeast to southwest across the project site and contains sections of unvegetated non-wetland waters and vegetated non-wetland waters; no adjacent waters or wetlands (outside of the OHWM) were observed. Within the delineation area, NWW 1 is dominated by southern cattails (*Typha domingensis*) with sections supporting patches of arroyo willow, red willow, cottonwood, and palms. A large in-line pond has also been constructed within the feature (Figure 8) and an approximately 20-foot-long concrete and riprap-lined dam occurs directly downstream of this pond. Near the downstream segment of the delineated feature (Figure 5), the river is not as constrained, allowing for a larger active floodplain supporting an understory of yerba mansa (*Anemopsis californica*) and curly dock (*Rumex crispus*) and an overstory of willows and cottonwood.

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Source: Jurisdictional Resources-ICF (2021); Imagery-SANGIS (2023)

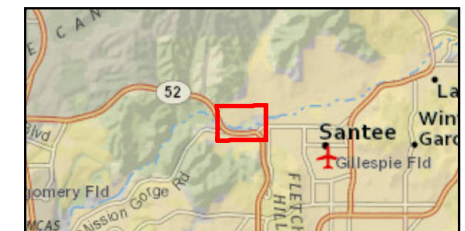
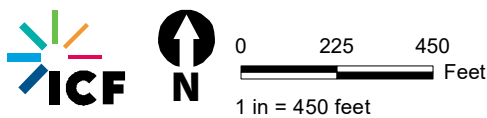


Figure 8
Jurisdictional Waters and Wetlands
Carlton Oaks Country Club and Resort

NWW 2 is an intermittent stream, likely subject to USACE, RWQCB, and CDFW jurisdiction, that flows north to south, draining into NWW 1. This feature begins at a storm drain outfall located off of Carlton Oaks Drive. This feature is also manipulated as it is confined between the existing housing development to the west and the existing golf course parking lot to the east (Figure 8). Lateral limits of NWW 2 were delineated based on a clear break in slope and changes in vegetation cover and species (Appendix I). This feature is dominated by Brazilian peppertrees (*Schinus terebinthifolia*), southern cattails, and willows within the active floodplain while the banks are dominated by highway iceplant (*Carpobrotus edulis*). This feature flows into a large culvert, which is assumed to outlet into NWW 1 (located 200 feet south of this feature); however, the outlet within NWW 1 could not be located at the time of the delineation.

NWW 3 is an ephemeral stream that flows north to south and is likely subject to USACE, RWQCB, and CDFW jurisdiction. It is a tributary to NWW 1 (Figure 8). This feature starts at a small storm drain outfall near the edge of the existing housing developments. The channel bottom is unvegetated; however, the banks support scattered palms and are dominated by ripgut brome (*Bromus diandrus*), ragweed, and short-pod mustard. The lateral limits of NWW 3 are delineated based on bed and bank and break in slope.

NWW 4 (San Diego River [South Channel]) is associated riparian habitat to the San Diego River (South Channel), subject to CDFW jurisdiction only (Figure 8). No OWHM indicators or hydrology indicators were observed at this location. A 10- to 12-foot-tall berm occurs outside of the golf course between the San Diego River (South Channel), separating small riparian patches occurring on the golf course from the riparian areas associated with this feature. However, in this area the berm has been eroded and is only 5 feet tall. Therefore, this area is considered contiguous riparian habitat subject to CDFW jurisdiction. The riparian habitat within this area is dominated by arroyo willows and mule fat.

NWW 5 is an intermittent stream channel located at the northeastern-most end of the delineation area. NWW 5 is subject to USACE, RWQCB, and CDFW jurisdiction (Figure 8). It is densely vegetated with cattails and a mix of other riparian vegetation including willows and cottonwoods. There is an existing culverted road crossing that is approximately 16 feet wide.

Wetland Water (WW) 1 is a depressional wetland (Figure 8) that is located approximately 400 linear feet from the San Diego River (South Channel) and approximately 800 linear feet from the OHWM of NWW 1. Additionally, WW 1 is located within the FEMA-mapped 100-year floodplain. This feature is not considered CDFW jurisdictional as it is a wetland that is not directly associated with a lake, river, or stream feature. Ponded water occurs within this area; however, no inlet or outlet structure was observed. Due to the location of a maintenance facility directly adjacent to this area, irrigation water may be drained into this area, allowing it to persist over time and causing wetland conditions. The area was dominated by bulrush and yerba mansa near the center and Brazilian peppertrees and willows along the edge.

WW 2 is a depressional wetland (Figure 8) that is located approximately 225 linear feet from the San Diego River and approximately 425 linear feet from the OHWM of NWW 1. WW 2 is located within the FEMA-mapped 100-year floodplain. This feature is not considered CDFW jurisdictional as it is separated from the San Diego River (South Channel) by a 10- to 12-foot-high berm, and therefore is not associated with a lake, river, or stream feature. This depressional wetland had several inlet structures diverting irrigation water into this area, which is allowing this area to persist. The center of the depression supports bulrush, while the edges support willows and mule fat. This feature may be considered a City of San Diego ESL wetland.

Excluded Water (EW) 1, EW 2, and EW 3: In addition to the mapped jurisdictional aquatic resources described above, two managed golf course ponds and one concrete v-ditch were identified as potential aquatic resources during the desktop delineation. These features were evaluated for USACE, RWQCB and/or CDFW jurisdiction and determined not to be potential aquatic resources pursuant to Sections 404 and 401 of the CWA, the Porter-Cologne Act, and Section 1602 of the California Fish and Game Code. Specifically, the two managed golf course ponds and concrete v-ditch are human-made, ornamental waters created on dry land for primarily aesthetic reasons for the existing golf course. The concrete V-ditch and western golf course pond (EW 2 and EW 3) receive urban runoff and stormwater runoff originating from the northern residential development. The human-made v-ditch and western golf course pond are not an aquatic resource as they are not a relocated tributary, excavated in a tributary, or drained wetlands as historical aerials do not show a tributary previously existing over the area. Additionally, EW 1 (south of the proposed Residential North) is filled with non-potable water and is used to irrigate the golf course grounds. Representative photos were taken of these areas and historical aerial imagery evaluated to provide further support and documentation as to why they were not considered jurisdictional. U.S. Army Corps of Engineers issued an Approved Jurisdictional Determination on June 19, 2020, determining that waters of the U.S. are not present within the EW-1, EW-2, and EW-3 (Appendix J).

Historical aerials confirmed the three features were constructed in dry land (Appendix J in Appendix E, Biological Survey Report). Prior to the construction of the golf course the San Diego River was leveed and re-routed to the south of the proposed project site in the 1960s. This converted the majority of the project site, including the areas inclusive of EW1, EW2, and EW3, to uplands (Appendix J: Attachment 1: Figure 1), and the surrounding area began to develop with residential homes and the golf course. The excluded waters were constructed into golf course ponds and the concrete v-ditch in the 1980s, where the site had been upland habitat since the re-routing of the San Diego River.

Per the 2015 Clean Water Rule (33 CFR 328.3(b)(4)(ii)) artificial, constructed lakes and ponds created in dry land are excluded by rule. Both the golf course ponds (EW 1 and EW 2) meet this definition and are therefore, not considered “waters of the United States”. Likewise, and in accordance with 33 CFR 328.3(b)(3) the concrete v-ditch (EW3) is a ditch that carries ephemeral flows and is not a relocated tributary and was not constructed in a tributary. Thus, EW 3 is not considered a “waters of the United States”. An approved jurisdictional determination from the USACE was obtained confirming that CWA jurisdiction does not exist over the excluded waters (i.e., EW 1, EW 2, and EW 3) (Appendix J).

3.3.1 City of San Diego ESL Wetland

City of San Diego ESL regulations have protections for wetlands. City of San Diego Municipal Code Chapter 11, Article 3, Division 1 includes the following wetland definition: “Wetlands are defined as areas which are characterized by any of the following 1) All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to ... riparian forest ... riparian woodlands, riparian scrub....” Riparian habitat along the San Diego River (South Channel) within the City of San Diego limits meets this definition of City of San Diego ESL Wetlands. The riparian and wetland habitat along San Diego River (North Channel) within the City of San Diego also meets the definition of ESL Wetland (Feature NWW 1 discussed above).

The City of San Diego ESL regulations state “It is intended for this definition to differentiate for the purposes of delineating wetlands, between naturally occurring wetlands and wetlands intentionally created by human actions” with artificially created areas not considered wetlands under this

definition. Excluded Waters 1, 2, and 3 are water bodies intentionally created by human actions in the creation of the golf course, as demonstrated in historic photos in Appendix J. As these golf course ponds are intentionally created by human actions, they are therefore not wetlands subject to City of San Diego ESL Regulations.

The San Diego River (South Channel) and its associated riparian habitat exists beyond the southern boundary of the project site, which is separated from the golf course by a tall earthen berm. Willows and other riparian-associated vegetation exist north of the berm within the limits of the golf course in the south-central portion of the project site (Figure 8). These areas were mapped within the vegetation layer as southern cottonwood-willow riparian forest. These areas are separated from normal overflow of the San Diego River (South Channel) by the tall berm but may be inundated by flooding from Sycamore Canyon Creek or from extreme flow events of the San Diego River (North Channel). The cottonwoods and willows would be able to persist because of the elevated water table associated with the perennial San Diego River (South Channel). This riparian area is considered a City of San Diego ESL Wetland because of the presence of riparian vegetation communities but is not considered CDFW jurisdictional because of the presence of the berm and the associated disconnect from wetland hydrology. This forest is within avoidance areas and will not be removed.

Sycamore Canyon Creek drains the nearly 10,000-acre watershed of Sycamore and West Sycamore Canyons of east Marine Corps Air Station (MCAS) Miramar, northern Santee, and the County of San Diego Sycamore Canyon/Goodan Ranch Preserve. To the north of the project site, Sycamore Canyon Creek parallels the Santee Lakes and enters the project site under the Carlton Oaks Drive bridge. Sycamore Creek then merges with San Diego River (North Channel) and encounters a historical impoundment within the existing golf course. The channel (now called San Diego River [North Channel]) passes over a spillway and then traverses the existing golf course in a mildly incised earthen channel, before meeting the mainstem San Diego River (South Channel) at the southwestern side of the project site. The impoundment along San Diego River (North Channel) is an intermittent feature and dries out during some summers, as in 2021. The City of San Diego municipal boundary intersects with San Diego River (North Channel) below the impoundment (Figure 11). San Diego River (North Channel) traverses 1,735 feet within the City of San Diego; all of San Diego River (North Channel) within the City of San Diego would be considered a City of San Diego ESL wetland based on the frequent occurrence of native and nonnative hydrophytic vegetation.

The riparian habitat to the north of the berm was observed to contain breeding least Bell's vireo habitat in 2019 (Figure 6). Least Bell's vireo is widespread within this section of the San Diego River during the summer breeding season. This ESL Wetland is considered occupied least Bell's vireo habitat. Least Bell's vireo were observed along San Diego River (North Channel) within the City of San Diego during protocol-level surveys conducted in 2022.

3.4 Habitat Connectivity and Wildlife Corridors

Wildlife Movement Corridors

Wildlife-movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to

mates, food, and water; allow the dispersal of individuals away from high-population density areas; and facilitate the exchange of genetic traits between populations.

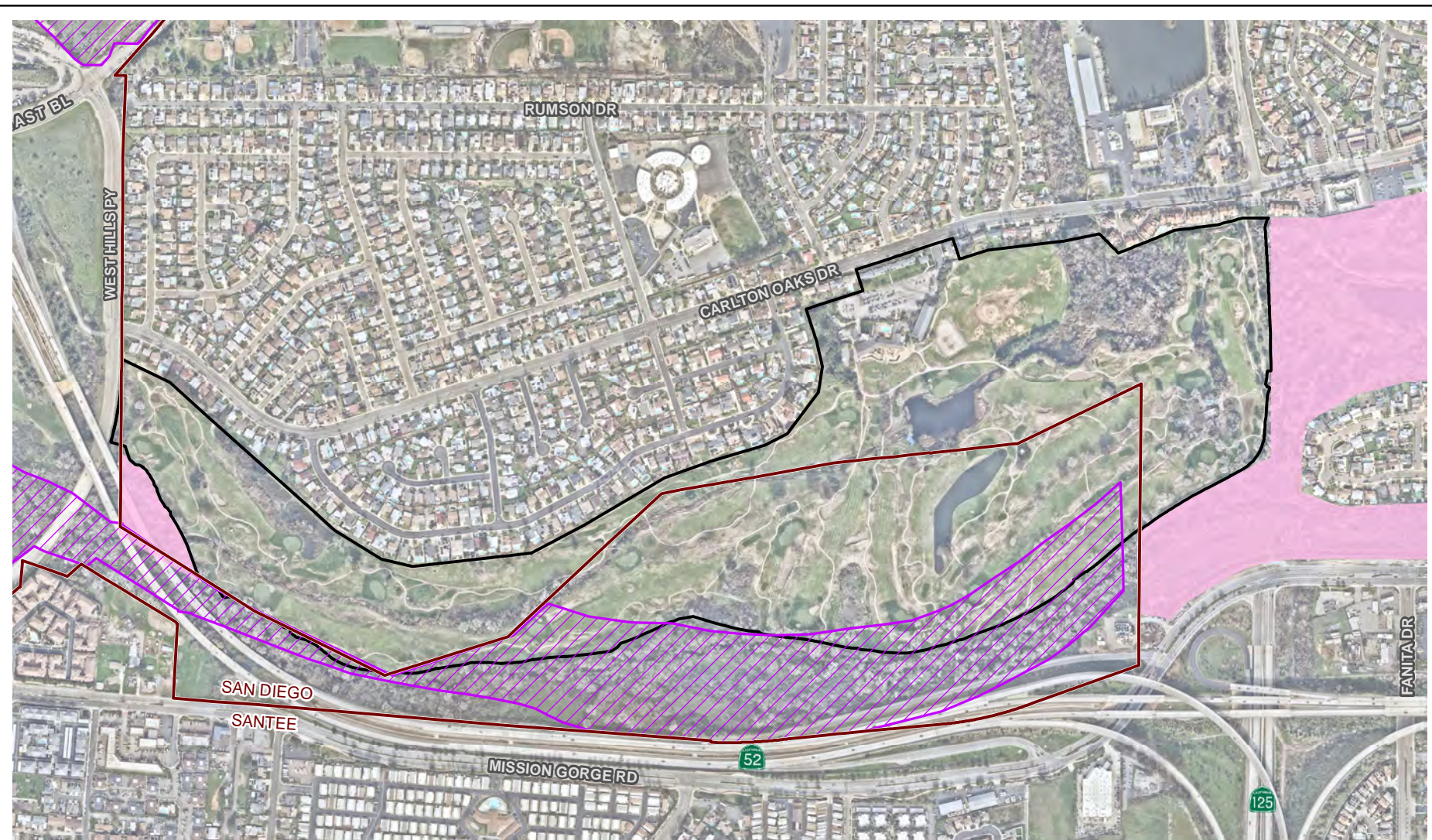
The BSA is immediately north of and adjacent and parallel to an east-west running portion of the mainstem of the San Diego River (South Channel), being situated in the floodplain of the river (Figure 9). Situated as it is in the river floodplain, the topography is generally flat throughout most of the BSA. Immediately south of the river and SR-52 is residential housing. Most of the San Diego River (South Channel) is within the boundaries of the City of San Diego MHPA. The BSA is bound by residential housing to the north and by Carlton Oaks Drive on the northeast boundary. Situated north across Carlton Oaks Drive is the 190-acre Santee Lakes Recreation Preserve, consisting of several fish-stocked lakes, campgrounds, and semi-natural areas.

The *California Essential Habitat Connectivity Project* (Spencer et al. 2010) was commissioned to encourage a functional network of connected wildlands for the continued support of California's diverse natural communities. The report identifies large, relatively natural habitat blocks that support native biodiversity (Natural Landscape Blocks) and areas essential for connectivity between Natural Landscape Blocks (Essential Connectivity Areas). For the South Coast Region, the report identifies an Essential Connectivity Area from Mission Trails/Santee to the northeast to Central Poway, and County of San Diego Sycamore Canyon/Goodan Ranch Preserve to the large blocks of habitat to the east of SR-67, including City of San Diego Cornerstone Lands at San Vicente Reservoir, CDFW San Vicente Highlands Open Space Preserve, County of San Diego Boulder Oaks Preserve, El Capitan Preserve, and Oak Oasis Preserve, and open space beyond these preserve lands. The BSA is not within this or other Essential Connectivity Areas.

The MSCP Plan includes designated Habitat Linkages, which served as an analytical tool to assist in testing preserve design criteria (City of San Diego 1998). The MSCP Plan includes the area from Mission Trails through East Elliott to Sycamore Canyon/Goodan Ranch Preserve as a Habitat Linkage; it does not identify a formal biological linkage to the east along San Diego River through the City of Santee (see Table 2.2 in City of San Diego 1998). The City of San Diego Subarea Plan does not identify wildlife corridors beyond those described in the MSCP Plan. The wildlife agency draft City of Santee Subarea Plan identifies a wildlife movement corridor along the San Diego River between Mission Trails, through Santee, east toward the community of Lakeside.

Although the *California Essential Habitat Connectivity Project* and the MSCP Plan do not include the San Diego River through Santee as a designated wildlife linkage, this analysis considers the San Diego River as a large and important linear habitat feature consisting primarily of various riparian, wetland, and open water habitat types in addition to other habitat types such as upland scrub. This river environment provides nesting and refugia habitat for a large number of native bird species in addition to nursery and refugia sites for many other species including mammals, reptiles, amphibians, and invertebrates. It also provides the important function of allowing animals, seeds and nutrients to move throughout the landscape ecosystem for dispersal or to allow for life-cycle completion. The San Diego River is heavily constrained by residential development to the north and south of the project site by Santee and El Cajon's Fletcher Hills, respectively. To the east of the project site, the San Diego River is heavily constrained by transportation corridors and residential and commercial development in the City of Santee, and the communities of Lakeside and Winter Gardens. To the west of the project site, the San Diego River opens into the large open space of Mission Trails Regional Park and undeveloped East Elliott areas of Marine Corps Air Station Miramar.

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- Project Site
- City of Santee/San Diego Municipal Boundary
- City of San Diego MHPA
- Existing Protected Open Space or Conservation Lands

Source: Imagery-SANGIS (2023)

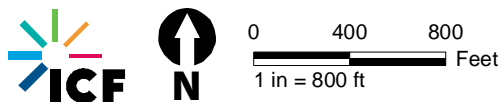


Figure 9
Adjacent Lands
Carlton Oaks Country Club and Resort

The San Diego River (South Channel) contains expansive riparian forest and the main perennial channel of the San Diego River. San Diego River (South Channel) borders the project site to the south. There is a berm that exists along much of the southern boundary of the project site which has a dirt trail on or along the base of the berm for most of the southern boundary of the project site. Golf course maintenance staff report seeing wildlife species consistently utilizing the dirt trail for movement at dusk, dawn, and night. This is not surprising, considering the ease of movement along an isolated dirt path adjacent to the shelter of the riparian forest located south of the project site. The continuous riparian forest corridor of the San Diego River (South Channel) is considered to be the primary movement corridor.

The existing Carlton Oaks Golf Course is functionally a savanna, with expansive 'lawns' of golf course features, with scattered ornamental trees throughout. The golf course provides for active recreation during the day, but is essentially unoccupied by humans at night, allowing for easy, additional wildlife movement through this savanna-like community. The golf course also includes the San Diego River (North Channel). The San Diego River (North Channel) has intermittent hydrology and lacks shrub and tree cover over much of its length; common vegetation in the channel includes invasive, herbaceous floating water-primrose (*Ludwigia peploides*), which does not provide function cover for mammal movement. The golf course and the San Diego River (North Channel) can serve as a secondary movement corridor for wildlife following the San Diego River (South Channel).

A few examples of wildlife species observed moving through or living in this wildlife corridor are southern mule deer, coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), red-tailed hawk (*Buteo jamaicensis*), Nuttall's woodpecker (*Dryobates nuttallii*), least Bell's vireo, western bluebird, and yellow-breasted chat.

Wildlife Core Areas

The MSCP Plan (City of San Diego 1998) identifies the connection from Mission Trails northeast through East Elliott to San Vicente Cornerstone Lands as part of a generalized core biological area (Mission Trails/Kearney Mesa/East Elliott/Santee). The MSCP Plan also identifies a part of the generalized core biological area extending from Mission Trails to the vicinity of the BSA. The San Diego subarea plan (City of San Diego 1997) refined the generalized core biological area of the MSCP Plan into the specific MHPA, which is a "hard line" preserve noting that not all of the generalized core biological area would be included in the hardline preserve. The San Diego River (south channel) to the south of the project area was designated as MHPA. Biological resource core areas, such as the riparian corridor along the San Diego River (South Channel) to the south of the BSA, generally have high value.

Sycamore Canyon Creek to the north of Carlton Oaks Drive averages 200-feet wide, constrained by existing residential housing to the west and a 6-foot-tall chain link fence separating the creek from Santee Lakes. Therefore, the BSA would provide constrained connectivity for species moving between the San Diego River environment and the Santee Lakes Recreation Preserve.

Double-crested cormorant occurs commonly as a non-breeding visitor in both salt- and freshwater bodies in San Diego County. It is widespread and common as a winter visitor, but is very rare as a breeding population. A rookery was observed in a eucalyptus along a pond within San Diego River

(North Channel) within the center of the golf course in the City of San Diego. The *San Diego County Bird Atlas* reported that only two rookery locations were known from San Diego County (Unitt 2004), with Carlton Oaks representing a new rookery. Rookeries of this species are considered special status by CDFW and are wildlife nursery sites protected under CEQA.

The municipal boundaries of City of San Diego and City of Santee are intertwined across the golf course and San Diego River. The habitat connectivity analysis is a landscape scale analysis and is the same for both jurisdictions.

Double-Crested Cormorant (*Nannopterum auritus*)

CDFW Watch List (Individuals); CDFW Sensitive (Rookeries)

Double-crested cormorant occurs commonly as a non-breeding visitor in both salt- and freshwater bodies in San Diego County. It is widespread and common as a winter visitor. It is very rare as a breeding population. The *San Diego County Bird Atlas* reported that only two rookery locations were known from San Diego County (Unitt 2004); Carlton Oaks represents a new rookery unreported in the Bird Atlas.

A rookery was observed in a eucalyptus along a pond within San Diego River (North Channel) within the center of the golf course in the City of San Diego (Figure 7). Rookeries of this species are considered special-status by CDFW and are wildlife nursery sites protected under CEQA.

3.5 Regional Planning

Portions of the project site within the City of San Diego are covered by the San Diego MSCP City of San Diego Subarea Plan. The portion of the project site within the City of Santee is not a part of the Santee Subarea Plan and is therefore not discussed in this section.

3.5.1 City of San Diego MHPA

City of San Diego MHPA is present along and within the southern boundary of the BSA within the City of San Diego. Of the 13.19 acres within the MHPA, 12.86 acres of golf course would be re-designed, and 0.33 acres of southern cottonwood-willow riparian forest would be avoided.

3.5.2 MSCP City of San Diego Subarea Plan Species

The MSCP City of San Diego Subarea Plan covered animal species observed within the BSA were least Bell's vireo, Cooper's hawk, mule deer, and western bluebird. Belding's orange-throated whiptail is MSCP-covered; it was determined to have a high potential to occur and is therefore treated as if it were observed. No other MSCP covered plant or animal species were observed or determined to have a high potential to occur.

Least bell's vireo is the only one of these MSCP species which has specific conditions of coverage under the City of San Diego's MSCP Subarea Plan (City of San Diego 1997). The conditions of coverage in the City of San Diego's MSCP Subarea Plan are as follows:

Jurisdictions will require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent

with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. Area specific management directives must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).

The project complies with the conditions of coverage listed above, as follows. Surveys were conducted using appropriate protocols during the CEQA process. Mitigation measures were designed consistent with the 404(b)1 guidelines. Cowbirds are a nest-parasite for songbirds including Least Bell's vireo. Brown-headed cowbirds prefer habitats with scattered trees among grassland vegetation-woodland edges including prairies, fields, pastures, orchards, and is often associated with cows and agriculture (Unitt 2004, Lowther 2020). Cowbirds are widespread in San Diego County (Unitt 2004) and were observed during vireo surveys in 2019 and 2022 (Appendix H). The project would not create new development adjacent to preserve areas which are more attractive to brown-headed cowbirds than the existing golf course conditions. No other specific Area Specific Management Directives are applicable to this project. No clearing of occupied habitat would occur within the City of San Diego or the MHPA. MM-BIO-12 will ensure that clearing of occupied habitat within the City of Santee occurs outside of the nesting period.

Mule deer, western bluebird, and Belding's orange-throated whiptail are non-listed animal species covered under the City of San Diego MSCP Subarea Plan. These three species do not have conditions for coverage (City of San Diego 1998).

Chapter 4

Project Impact Analysis

This section identifies direct, indirect, and cumulative impacts that would result from the proposed project as determined by the CEQA process. Direct impacts associated with proposed project construction would include permanent impacts and temporary impacts. Direct permanent impacts are those where the ground disturbance would be permanent; the biological resources would not be replaced by the proposed project. Direct temporary impacts are those that would be caused by construction activity, but vegetation/habitat would be re-established in place following completion of construction.

Indirect impacts are actions that are not a direct result of the proposed project but affect biological resources either as a secondary effect of the direct impacts (e.g., construction noise, runoff, nighttime lighting, fugitive dust) or as the cause of degradation of a biological resource over time (e.g., edge effects).

Cumulative impacts refer to the incremental effect of the project's impacts when added to the effects of other closely related projects.

4.1 CEQA Guidelines

The CEQA Guidelines define "significant effect on the environment" as a "substantial or potentially substantial adverse change in the environment". CEQA provides guidelines on how to determine a significant effect on biological resources. Local jurisdictions such as the City of San Diego may provide further guidance on what would constitute a significant effect on biological resources.

4.1.1 California

The CEQA Guidelines (CEQA Appendix G) indicate that there may be a significant effect on biological resources if the project would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

4.1.2 City of San Diego

According to the City's Significance Determination Thresholds, potential impacts to biological resources are assessed through review of the project's consistency with the City's ESL Regulations, Biology Guidelines, and MSCP Subarea Plan. Before a determination of the significance of an impact can be made, the presence and nature of the biological resources must be established. Thus, significance determination, pursuant to the City's Significance Determination Thresholds, proceeds in two steps: (1) determine if significant biological resources are present; and (2) determine the sensitivity of identified biological resources in terms of direct, indirect, and cumulative impacts that would result from project implementation.

1. Sensitive biological resources are defined by the City of San Diego Municipal Code as:
 - a. Lands that have been included in the MHPA as identified in the City of San Diego MSCP Subarea Plan (City of San Diego 1997);
 - b. Wetlands (as defined by the Municipal Code, Section 113.0103);
 - c. Lands outside the MHPA that contain Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines (July 2002 or current edition) of the Land Development manual;
 - d. Lands supporting species or subspecies listed as rare, endangered, or threatened;
 - e. Lands containing habitats with narrow endemic species as listed in the Biology Guidelines of the Land Development manual; and
 - f. Lands containing habitats of covered species as listed in the Biology Guidelines of the Land Development manual.
2. Occurrence of any of the following situations associated with identified biological resources may indicate significant direct and indirect biological impacts.

A. Direct Impacts

- a. Any encroachment in the MHPA is considered a significant impact to the preservation goals of the MSCP. Any encroachment into the MHPA (in excess of the allowable encroachment by a project) would require a boundary adjustment, which would include a habitat equivalency assessment to ensure that what would be added to the MHPA is at least equivalent to what would be removed.
- b. Lands containing Tier I, II, IIIA, and IIIB habitats and all wetlands are considered sensitive and declining habitats. Impacts to these resources may be considered significant.
- c. Impacts to individual sensitive species, outside of any impacts to habitat, may also be considered significant based upon the rarity and extent of impacts. Impacts to State or Federally listed species and all narrow endemics should be considered significant.

- d. Certain species covered by the MSCP and other species not covered by the MSCP may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.

B. Indirect Impacts

The Significance Determination Thresholds indicate that depending on the circumstances, indirect effects of a project may be as significant as the direct effects of the project. Indirect effects include, but are not limited to, the following impacts:

- a. Introduction of urban meso-predators into a biological system
- b. Introduction of urban runoff into a biological system
- c. Introduction of invasive exotic plant species into a biological system
- d. Noise and lighting impacts
- e. Alteration of a dynamic portion of a system, such as stream flow characteristics or fire cycles
- f. Loss of a wetland buffer that includes no environmentally sensitive lands.

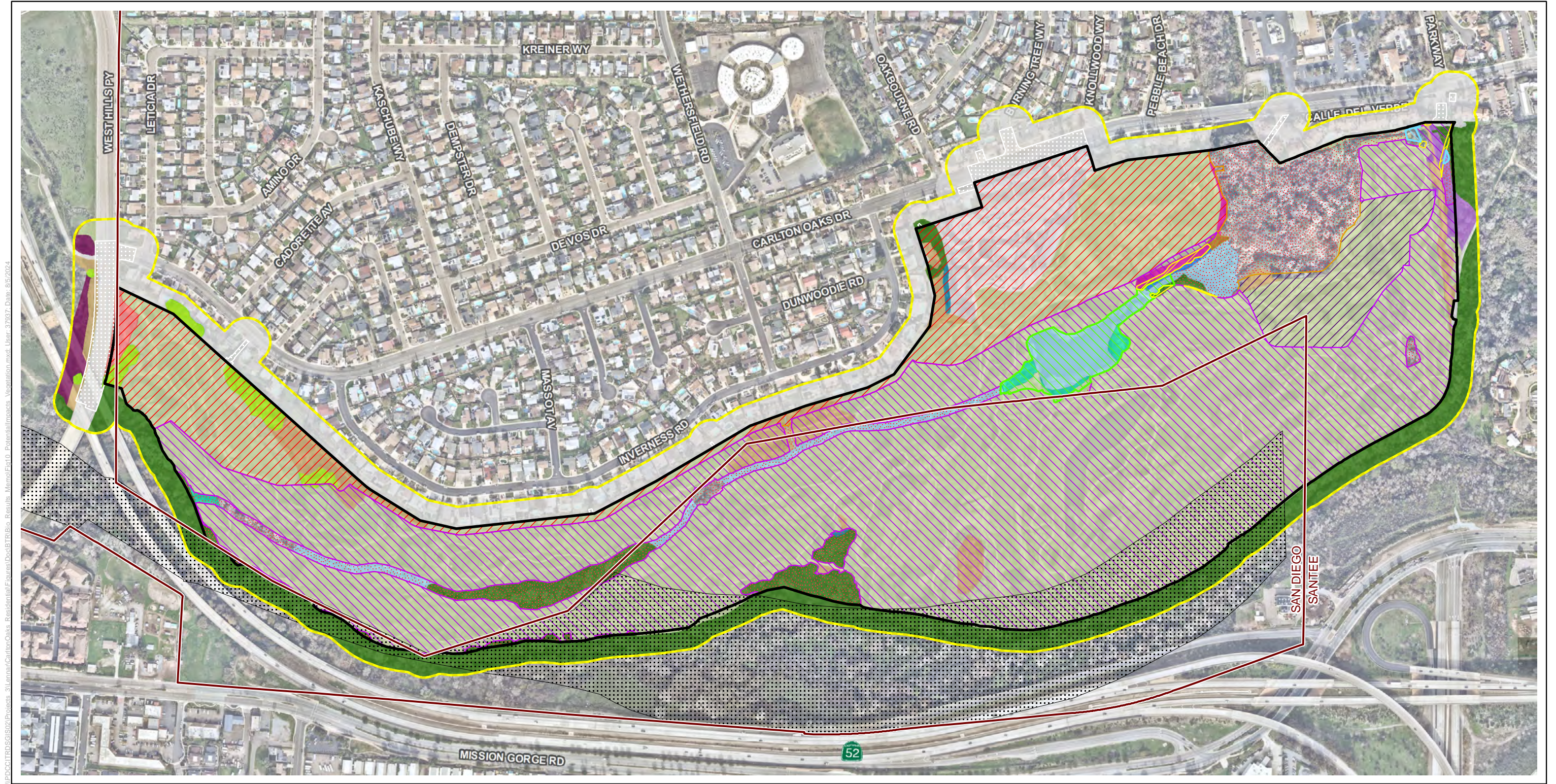
The full analysis of these thresholds will be provided in the Environmental Impact Report prepared for the proposed project.

4.2 Direct Impacts

4.2.1 Vegetation Communities

The proposed project is primarily situated in areas mapped as developed or developed-golf course. The proposed project would result in direct permanent impacts on up to 148.17 acres, of which only 1.91 acres are mapped as native or naturalized vegetation communities. The impacts on these communities are detailed in Tables 4-1 and 4-2 and are shown on Figure 10. Non-sensitive vegetation communities and land cover types are denoted with an asterisk.

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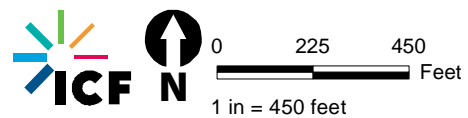
- Project Site
- Biological Study Area
- City of Santee/San Diego Municipal Boundary
- City of San Diego MHPA

- Permanent Impact: Clubhouse/Hotel/Other
- Permanent Impact: Residential
- Permanent Impact: Golf Course Redesign
- Permanent Impact for Fuel Modification Zone
- Temporary Impacts Along Sycamore Creek
- Temporary Impacts Within Golf Course
- Avoidance
- Offsite

- Vegetation Classification (Holland Code)**
- Riparian**
- Mule Fat Scrub-disturbed (63310)
 - Non-Native Riparian (65000)
 - Southern Cottonwood-Willow Riparian Forest (61330)
 - Southern Cottonwood-Willow Riparian Forest-disturbed (61330)

- Wetlands**
- Southern Riparian Scrub (63320)
 - Coastal and Valley Freshwater Marsh (52410)
 - Disturbed Wetland (11200)
 - Fresh Water (64140)
- Upland**
- Diegan Coastal Sage Scrub-disturbed (32500)

- Non-Native Grassland (42200)
 - Non-Native Woodland (79000)
- Developed/Disturbed**
- Developed (12000)
 - Developed-Golf Course
 - Disturbed Habitat (11000)
 - Eucalyptus Woodland (79100)



Source: Biological Resources-ICF (2022); Hunsaker & Associates (2023); Imagery-SANGIS (2023)



Figure 10
Potential Impacts on Vegetation Communities
Carlton Oaks Country Club and Resort

Tables 4-1 through 4-6 are separated to show the portions of the impacts within the City of Santee and the City of San Diego, and are broken down by project component. Table 4-1 presents all permanent impacts on vegetation communities and other land cover types in the City of San Diego. Table 4-2 presents all permanent impacts on vegetation communities and other land cover types (e.g., developed) within the City of Santee. Table 4-3 presents all temporary impacts on all vegetation communities and other land cover types. Table 4-4 reiterates this information for only sensitive upland communities. Table 4-5 highlights permanent impacts on wetland and riparian communities and Table 4-6 presents temporary impacts on wetland and riparian communities. Impacts were categorized into the following:

- **Permanent Impact – Residential.** These permanent impacts would result from the hardscape development of the residential development of the proposed project.
- **Permanent Impact – Clubhouse/Hotel.** These permanent impacts would result from the hardscape development of the hotel and hotel cottages, restaurant, event space, golf clubhouse, learning center, and parking lot portions of the proposed project. This also includes an outdoor swimming pool and deck area, a patio, and a courtyard.
- **Permanent Impact – Golf Course Redesign.** These permanent impacts would result from the redesign of the golf course.
- **Permanent Impact – Fuel Modification Zone.** Areas outside of permanent impacts from grading that are subject to fuel modification zone requirements for vegetation thinning and removal. Fuel modification zones are considered a permanent impact unless the community would either not be considered impacted by fuel modification (non-native grassland) or would not be subject to fuel modification because of the wetness of the community (e.g., open water, non-native riparian).
- **Temporary Impacts Along San Diego River (North Channel).** These impacts include all of the natural habitat along San Diego River (North Channel) that could be temporarily impacted during construction but will be restored in the same location along San Diego River (North Channel). The majority of this area will only be subject to dewatering; the pond is currently an intermittent feature, drying up when water is not coming from Sycamore Canyon or high water flows from the San Diego River, so effects of dewatering will be similar to existing variation in hydrology. These areas may also be subject to sediment removal from unvegetated areas; no sediment will be removed from freshwater marsh areas. Temporary impacts may also occur from a temporary access road and bent/footing installation associated with bridge construction over San Diego River (North Channel).
- **Temporary Impacts within Golf Course.** These impacts represent temporary impacts in the emergency access road in the northeast corner of the project site. These areas are adjacent to other native habitat and will be revegetated after construction of the emergency access road.
- **Avoidance Areas.** These are areas of natural habitat that would be fully avoided from direct disturbance.
- **Off Site.** Permanent impacts on areas outside of the project footprint, which may be directly affected. Descriptions of off-site activities are provided in Section 1.4.9.

Table 4-1. Impacts on Vegetation Communities and Land Cover Types (acres) - City of San Diego

| Jurisdiction | Vegetation Community/ Land Cover Type | On Site | | | Total Permanent On Site | Permanent Off Site | Total Impacts |
|----------------------|--|-------------|---------------------|-------------------------|-------------------------------|-----------------------|------------------|
| | | Residential | Clubhouse/ Hotel | Golf Course Redesign | | | |
| City of San Diego | Developed* | | | | | 1.57 | 1.57 |
| | Developed-Golf Course* | | 0.41 | 58.48 | 58.89 | | 58.89 |
| | Diegan Coastal Sage Scrub – disturbed | 0.08 | | | 0.08 | 0.11 | 0.19 |
| | Disturbed Habitat* | | | 1.40 | 1.40 | 0.12 | 1.52 |
| | Eucalyptus Woodland * | 0.10 | | | 0.10 | 0.02 | 0.12 |
| | Sensitive Habitat Subtotal | 0.08 | | | 0.08 | 0.11 | 0.19 |
| | City of San Diego Totals | 0.18 | 0.41 | 59.88 | 60.47 | 1.82 | 62.29 |

* = non-sensitive vegetation community or land cover type

Table 4-2. Permanent Impacts on Vegetation Communities and Land Cover Types (acres) – City of Santee

| Jurisdiction | Vegetation Community/Land Cover Type | On Site | | | Fuel Modification Zone | Permanent Off Site | Total Impacts |
|-------------------|---|--------------|---------------------|----------------------------|------------------------------|-----------------------|------------------|
| | | Residential | Clubhouse/ Hotel | Golf Course Redesign | | | |
| City of Santee | Developed* | 7.07 | | 0.10 | | 1.81 | 8.98 |
| | Developed – Golf Course* | 20.29 | 6.31 | 42.71 | | | 69.31 |
| | Diegan Coastal Sage Scrub – disturbed | 0.41 | | | | | 0.41 |
| | Disturbed Habitat* | 2.14 | 0.19 | 1.77 | | | 4.10 |
| | Disturbed Wetland | 0.12 | | | 0 | | 0.12 |
| | Eucalyptus Woodland* | 1.19 | | 0.04 | | | 1.25 |
| | Mule Fat Scrub-disturbed | | 0.01 | 0.29 | 0.04 | | 0.34 |
| | Non-Native Grassland | | | 0.01 | | | 0.01 |
| | Non-Native Riparian | | 0.01 | 0.01 | 0.02 | | 0.04 |
| | Non-Native Woodland* | 0.15 | | 0.14 | 0.23 | | 0.52 |
| | S. Cottonwood-Willow Riparian Forest | 0.35 | | 0.10 | 0.05 | | 0.50 |
| | Southern Cottonwood-Willow Riparian Forest – disturbed | 0.02 | 0.20 | 0.06 | 0.02 | | 0.30 |
| | Sensitive Habitat Subtotal | 0.90 | 0.22 | 0.48 | 0.13 | 0 | 1.73 |
| | City of Santee Subtotal | 31.74 | 6.72 | 45.24 | 0.36 | 1.81 | 85.88 |

* = non-sensitive vegetation community or land cover type

Table 4-3. Temporary Impacts on Vegetation Communities and Land Cover Types – City of Santee (acres)

| Jurisdiction | Vegetation Community/Land Cover Type | Temporary Impacts along San Diego River | Temporary Impacts within Golf Course Emergency Access Road | Total |
|-----------------------------|--|--|---|--------------|
| City of Santee | Coastal and Valley Freshwater Marsh | 0.56 | | <i>0.56</i> |
| | Developed – Golf Course* | 0.26 | 0.01 | <i>0.27</i> |
| | Fresh Water | 2.43 | | <i>2.43</i> |
| | Mule Fat Scrub-disturbed | | 0.02 | <i>0.02</i> |
| | Non-Native Riparian | 0.05 | | <i>0.05</i> |
| | S. Cottonwood-Willow Riparian Forest | 0.01 | | <i>0.01</i> |
| | Southern Cottonwood-Willow Riparian Forest – disturbed | | 0.06 | <i>0.06</i> |
| City of Santee Total | | 3.31 | 0.09 | 3.40 |

* = non-sensitive vegetation community or land cover type

Table 4-4. Summary of Impacts on Sensitive Upland Vegetation Communities (acres)

| Jurisdiction | Vegetation Community/Land Cover Type | On Site | | | Total Permanent On Site | Permanent Off Site | Total Impacts |
|-----------------------------------|---|--------------------|-------------------------|-----------------------------|--------------------------------|---------------------------|----------------------|
| | | Residential | Clubhouse /Hotel | Golf Course Redesign | | | |
| City of San Diego† | Diegan Coastal Sage Scrub – disturbed | 0.08 | | | <i>0.08</i> | 0.11 | 0.19 |
| City of San Diego Subtotal | | 0.08 | | | 0.08 | 0.11 | 0.19 |
| City of Santee | Diegan Coastal Sage Scrub – disturbed | 0.41 | | | <i>0.41</i> | | 0.41 |
| | Non-Native Grassland | | | 0.01 | <i>0.01</i> | | 0.01 |
| City of Santee Subtotal | | 0.41 | 0 | 0.01 | 0.42 | 0 | 0.42 |
| Project Totals | | 0.49 | 0 | 0.01 | 0.50 | 0.11 | 0.61 |

†= All impacts outside of the MHPA

Table 4-5. Permanent Impacts on Wetland and Riparian Vegetation Communities (acres)

| Jurisdiction | Vegetation Community/Land Cover Type | Residential | Clubhouse/ Hotel | Golf Course Redesign | Fuel Modification Zone | Total Permanent Impacts |
|-----------------------|--|--------------------|-----------------------------|---------------------------------|---------------------------------------|--|
| City of Santee† | Disturbed Wetland | 0.12 | | | | 0.12 |
| | Mule Fat Scrub-disturbed | | 0.01 | 0.29 | 0.04 | 0.34 |
| | Non-Native Riparian | | 0.01 | 0.01 | 0.02 | 0.04 |
| | Southern Cottonwood-Willow Riparian Forest | 0.35 | | 0.10 | 0.05 | 0.50 |
| | Southern Cottonwood-Willow Riparian Forest – disturbed | 0.02 | 0.20 | 0.06 | 0.02 | 0.30 |
| Project Totals | | 0.49 | 0.22 | 0.46 | 0.13 | 1.30 |

† = no wetland impacts in City of San Diego

Table 4-6. Temporary Impacts on Wetland and Riparian Vegetation Communities (acres)

| Jurisdiction | Vegetation Community/Land Cover Type | Temporary Impacts along San Diego River | Temporary Impacts within Golf Course Emergency Access Road | Total Temporary Impacts |
|-----------------------|--|--|---|------------------------------------|
| City of Santee† | Coastal and Valley Freshwater Marsh | 0.56 | | 0.56 |
| | Fresh Water | 2.43 | | 2.43 |
| | Mule Fat Scrub-disturbed | | 0.02 | 0.02 |
| | Non-Native Riparian | 0.05 | | 0.05 |
| | Southern Cottonwood-Willow Riparian Forest | 0.01 | | 0.01 |
| | Southern Cottonwood-Willow Riparian Forest – disturbed | | 0.06 | 0.06 |
| Project Totals | | 3.05 | 0.08 | 3.13 |

† = no wetland impacts in City of San Diego

4.2.1.1 City of San Diego

IMPACT BIO-1. Diegan Coastal Sage Scrub. Direct, permanent on-site impacts on 0.08 acres of Diegan coastal sage scrub – disturbed and direct permanent off-site impacts on 0.11 acres of Diegan coastal sage scrub – disturbed within the City of San Diego, as shown in Table 4-1, would represent a significant adverse effect on sensitive natural communities.

A total of 0.19 acres of Diegan coastal sage scrub (disturbed) would be impacted in the western residential area by the proposed project within the limits of the City of San Diego, outside of the MHPA. This patch of coastal sage scrub is connected to 0.41 acres of Diegan coastal sage scrub (disturbed) within Santee, for a total patch size of 0.59 acres. This patch is located on the eastern shoulder of West Hills Parkway embankment and is vegetated primarily with disturbance-adapted broom baccharis (*Baccharis sarothroides*) and does not have a structural or species diversity of shrubs. This habitat is isolated between the existing golf course and West Hills Parkway. Focused surveys were conducted within this habitat for California gnatcatcher in 2019 and 2022 and did not detect occupancy by this California gnatcatcher.

No sensitive vegetation communities would be impacted within the City of San Diego MHPA.

4.2.1.2 City of Santee

Impact BIO-2. Permanent Impacts on Sensitive Communities. Direct permanent impacts on sensitive natural or naturalized vegetation communities within the City of Santee, as shown in Table 4-2, would represent a significant adverse effect on sensitive natural and riparian communities.

Impact BIO-3. Temporary Impacts on Sensitive Communities. Direct temporary impacts on sensitive natural or naturalized vegetation communities within the City of Santee, as shown in Table 4-3, would represent a significant adverse effect on sensitive natural and riparian communities.

4.2.2 Jurisdictional Waters and Wetlands

The project has been designed to avoid direct impacts on waterways, except for linear stream crossings (primarily improvements of the existing river crossing at the northeast side of the project area [NWW5]) and localized, temporary, summer stream dewatering associated with construction (allowing for access for bridge construction). Areas of riparian vegetation less than 100-feet from buildings will be considered impacted by fuel management zones and mitigated; no impacts will occur to the channel topography in these fuel management zones, so there will not be a negative effect on water channel function. All other buildings, including all residential buildings, are positioned at least 100-feet back from riparian habitat, providing buffers for wetlands. All stream courses within the redeveloped golf course will include a 10-foot-wide strip of planted native vegetation. This strip will have an emphasis on saltgrass (*Distichlis spicata*), a native, wetland tolerant grass species. There is currently no buffer between the existing golf course and existing waterways.

The project would not result in permanent negative development of jurisdictional waterways relative to flood conveyance (i.e., no direct alteration of stream elevation); improvements at NWW5 would improve water conveyance at that location. The hydrology section of this EIR states that the project would not (i) result in substantial erosion or siltation on or off site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; (iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater-

drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.

The *Drainage Report for Carlton Oaks Country Club & Resort TM 2019-1/DR 2019-5* states that “there would be a substantial lag time between the time the peak flows from the proposed development outlet to the San Diego River and time the peak flows along the San Diego River reach the proposed outlet locations since the tributary area to the San Diego River is several thousand acres. Due to this lag time, there is no net increase of flows to the San Diego River from the development of Carlton Oaks Country Club and Resort when compared to existing conditions.”

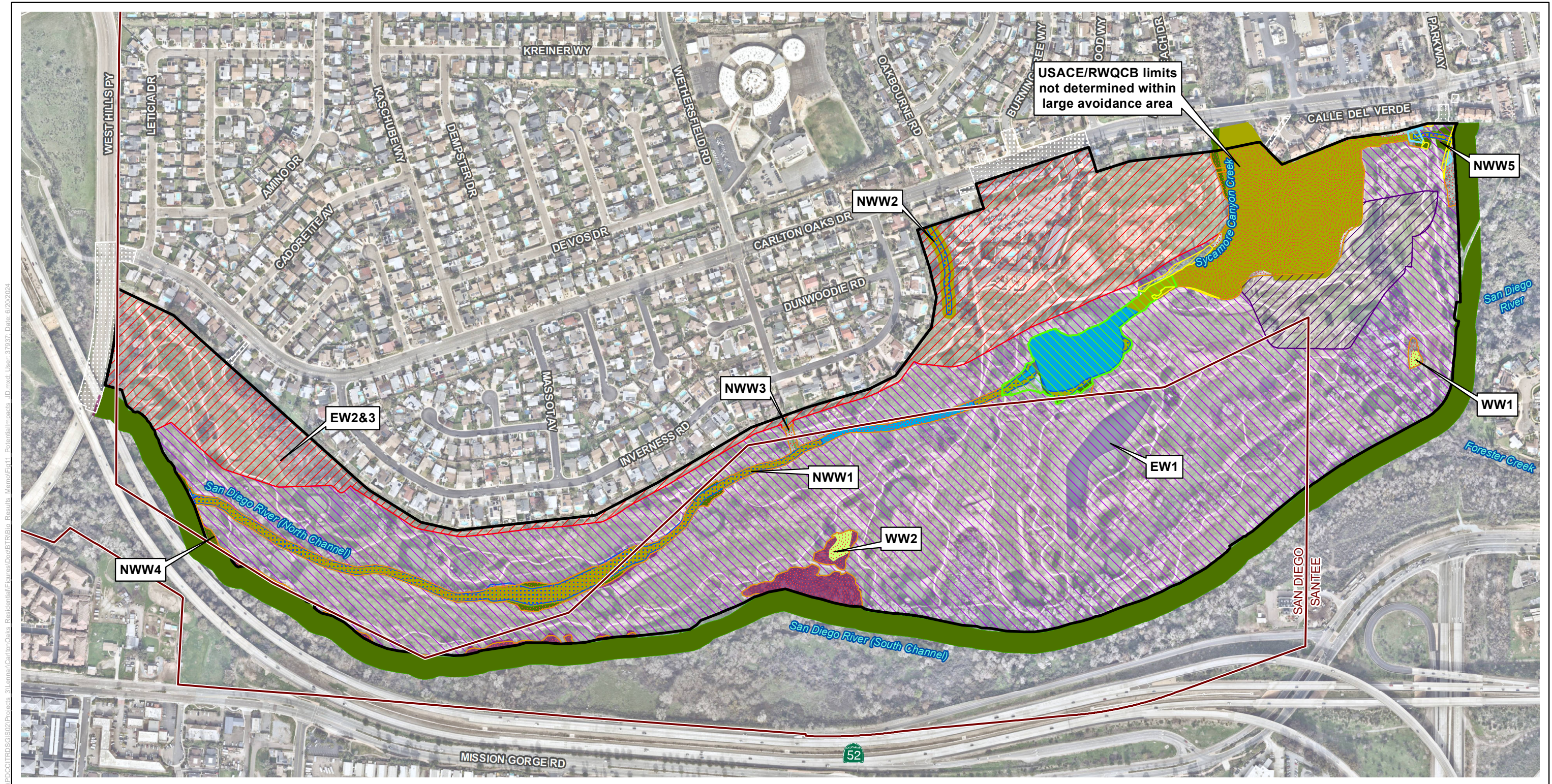
Regarding the driving range, soil was placed within the driving range in 2023-2024. There is an existing silt-fence along the chain-link fence on the outer boundary of the driving range, where it abuts Sycamore Canyon Creek. The silt fence was in good condition in 2024 and would have prevented any sediment from entering the adjacent waterway. Soil was removed in 2024 and the site was returned to original conditions prior to soil deposition. No impacts occurred on Sycamore Canyon Creek from activities at the driving range.

4.2.2.1 USACE/RWQCB Jurisdictional Impacts

The proposed project would have no impact (temporary or permanent) on USACE/RWQCB jurisdictional wetlands; WW1 and WW2 are within designated Avoidance Areas and would not be affected.

The proposed project would result in direct permanent loss of 0.289 acres of USACE/RWQCB jurisdictional non-wetland waters and 0.575 acres of permanent impact on USACE/RWQCB jurisdictional non-wetland waters (Table 4-7; Figure 11). The proposed project would result in direct temporary impacts on 2.373 acres of USACE/RWQCB non-wetland waters (Table 4-8). This includes 2.339 acres of temporary impacts associated with the dewatering of a pond in San Diego River (North Channel) (NWW1) during construction. The remainder of the temporary impacts are NWW5 around the emergency exit road in the northeast corner of the project area. Note that the determination of impacts as permanent, permanent loss, and temporary will vary slightly between jurisdictions. For example, bridged areas will result in temporary impacts on non-wetlands and streambeds (e.g., at NWW5), but permanent impacts on the wetland vegetation that was previously present at those locations. Unmitigated impacts on state and federal jurisdictional wetlands would be a significant impact; mitigation to reduce the level of significance is proposed in Chapter 5, *Avoidance and Mitigation Measures*. Non-wetland waters are not a resource described in Section IV. C. of the CEQA checklist; however, non-wetland waters would be avoided to the maximum extent practicable.

\\PDC\IT\GIS\GIS02\Projects_3\Lennar\CarltonOaks_Residential\Figures\Doc\BTR\BTR_Results_Memo\Fig11_PotentialImpacts_JD.mxd; User: 37937; Date: 6/20/2024



Project Site

City of Santee/San Diego Municipal Boundary

Permanent Impact: Clubhouse/Hotel/Other

Permanent Impact: Residential

Permanent Impact: Golf Course Redesign

Permanent Impact for Fuel Modification Zone

Temporary Impacts Along Sycamore Creek

Temporary Impacts Within Golf Course

Avoidance Areas

Offsite Areas

Waters of the U.S. and State

Nonwetland Water

Nonwetland Water (Riprap-lined)

Wetland Waters

Wetland Waters Within OHWM

CDFW Waters

Unvegetated Streambed

Vegetated Streambed

Riparian

City of San Diego ESL Wetland

Southern Cottonwood-Willow Riparian Forest (61330)

Southern Cottonwood-Willow Riparian Forest-disturbed (61330)

*Within the City of San Diego, these areas are also ESL Wetlands.

Source: Jurisdictional Resources-ICF (2022); Hunsaker & Associates (2023); Imagery-SANGIS (2023)

ICF

N

0

225

450

Feet

1 in = 450 feet

Figure 11
Potential Impacts on Jurisdictional Waters and Wetlands
Carlton Oaks Country Club and Resort

Table 4-7. Permanent Impacts on USACE/RWQCB Jurisdictional Waters (acres)

| Aquatic Resource | Permanent Impact* | Permanent Loss** |
|-------------------------------|--------------------------|-------------------------|
| Clubhouse/Hotel | | |
| NWW 1 | 0.570 | 0.000 |
| Residential | | |
| NWW 2 | 0.000 | 0.235 |
| NWW 3 | 0.000 | 0.003 |
| Golf Course Redesign | | |
| NWW 1 | 0.000 | 0.000 |
| NWW 5 | 0.000 | 0.051 |
| Fuel Modification Zone | | |
| NWW 5 | 0.005 | 0.000 |
| Total | 0.575 | 0.289 |

*= A permanent impact to an aquatic feature is where a permanent discharge of fill material (e.g., rip rap) would occur, but the feature would retain some aquatic function.

** = A permanent loss was designated to an aquatic feature where it would be converted to concrete or uplands, thereby eliminating any aquatic function. No impacts to wetland waters.

Table 4-8. Temporary Impacts on USACE/RWQCB Jurisdictional Waters (acres)

| Aquatic Resource | Temporary Impact |
|---|-------------------------|
| Golf Course Redesign | |
| NWW 5 | 0.010 |
| Temporary Impacts Along San Diego River (North Channel) | |
| NWW 1 | 2.339 |
| Temporary Impacts Within Golf Course Emergency Access Road | |
| NWW5 | 0.024 |
| Total | 2.373 |

4.2.2.2 CDFW Jurisdictional Impacts

The proposed project would have permanent direct impacts on up to 0.929 acres of CDFW-jurisdictional vegetated streambed and 0.148 acres of CDFW jurisdictional riparian habitat (Table 4-9, Figure 11). The proposed project would have temporary direct impacts on up to 0.758 acres of CDFW jurisdictional vegetated streambed, 2.355 acres of unvegetated streambed, and 0.095 acres of CDFW riparian habitat (Table 4-10).

Impact BIO-4. Wetland Impacts. Impacts on wetlands (including marsh, riparian, etc.), as detailed in Tables 4-9 and 4-10, would represent a significant adverse effect on state wetlands.

Table 4-9. Permanent Impacts on CDFW Jurisdictional Resources (acres)

| Aquatic Resource | Riparian | Unvegetated Stream | Vegetated Stream |
|-------------------------------|-----------------|---------------------------|-------------------------|
| Clubhouse/Hotel | | | |
| NWW 1 | 0 | 0 | 0.206 |
| Residential | | | |
| NWW 1 | 0.012 | 0 | 0.008 |
| NWW 2 | 0 | 0 | 0.606 |
| NWW 3 | 0 | 0 | 0.006 |
| Golf Course Redesign | | | |
| NWW 1 | 0 | 0 | 0.018 |
| NWW 5 | 0.101 | 0 | 0.077 |
| Fuel Modification Zone | | | |
| NWW 5 | 0.035 | 0 | 0.008 |
| Total | 0.148 | 0 | 0.929 |

* = No impacts to NWW 4

Table 4-10. Temporary Impacts on CDFW Jurisdictional Resources (acres)

| Aquatic Resource | Riparian | Unvegetated Stream | Vegetated Stream |
|---|-----------------|---------------------------|-------------------------|
| Golf Course Redesign | | | |
| NWW 5 | 0.013 | 0 | 0.014 |
| Temporary Impacts Along San Diego River (North Channel) (Dewatering) | | | |
| NWW 1 | 0.068 | 2.355 | 0.722 |
| Temporary Impacts Within Golf Course | | | |
| NWW 5 | 0.014 | 0 | 0.036 |
| Total | 0.095 | 2.355 | 0.758 |

4.2.2.3 City of San Diego Wetlands

No impacts would occur on City of San Diego ESL wetlands. Within the project site, potential City of San Diego ESL wetlands are all demarcated avoidance areas and will not be impacted or redeveloped (Figure 11).

4.2.3 Special-Status Species

The proposed project has potential to affect 12 special-status and/or MSCP covered animal species, including six special-status and/or MSCP covered bird species observed within the BSA: Cooper's hawk, least Bell's vireo, vermilion flycatcher, western bluebird, yellow warbler, and yellow-breasted chat; MSCP-covered southern mule deer observed in the BSA; as well as three species determined to have a high potential to occur: Belding's orange-throated whiptail, two-striped garter snake, and white-tailed kite. Southern mule deer is not considered special status but has

aesthetic and intrinsic values, thereby being an important species to protect (City of San Diego 1998). Mule deer is a covered species under the MSCP and is known to use the project site. Although western spadefoot and western burrowing owl were determined to have a low potential to occur, these species are addressed below due to their possible future listing at the federal level and future presence. Double-crested cormorant (*Phalacrocorax auritus*) is not a special-status or MSCP-covered species, but the on-site rookery is a CDFW-protected wildlife nursery site and is therefore discussed in the Wildlife Nursery Sites section. Avoidance and minimization measures are proposed to ensure no direct or indirect impacts occur to breeding individuals. Loss of occupied habitat would be fully compensated in-kind through on- and off-site preservation, as detailed in Chapter 5, Avoidance and Mitigation Measures. No special-status plant species would be directly impacted by project construction.

4.2.3.1 Least Bell's Vireo

Impact BIO-5. Least Bell's Vireo Breeding Habitat. The proposed project would have permanent direct impacts of up to 0.77 acres of occupied least Bell's vireo breeding habitat within designated critical habitat within the City of Santee, within the clubhouse/hotel, golf course redesign, and fuel modification areas (riparian habitat in Residential North was unoccupied). The 0.77 acres includes 0.43 acres of southern cottonwood-willow riparian forest (including disturbed) and 0.34 acres of mule fat scrub – disturbed (Table 4-5). The loss of 0.77 acres of occupied breeding habitat for least Bell's vireo species would be a potentially significant impact. The proposed project would have temporary direct impacts of up to 0.09 acres of occupied least Bell's vireo breeding habitat within designated critical habitat within the City of Santee, including 0.07 acres of southern cottonwood-willow riparian forest (including disturbed) and 0.02 acres of mule fat scrub – disturbed (Table 4-6).

No direct impacts on potentially suitable or occupied least Bell's vireo habitat would occur within in the preserve areas of the San Diego MHPA or any other areas within the City of San Diego. Various state and federal laws protect breeding birds, including least Bell's vireo, and their nests and eggs, from destruction. This project includes avoidance measures to ensure that breeding success of least Bell's vireo are not adversely affected (Section 5.1.3).

Riparian vegetation associated with the storm drain outfall to the west of the existing clubhouse did not support least Bell's vireo in 2019 or 2022. While this habitat is considered unoccupied by least Bell's vireo, impacts to riparian habitat will be mitigated according to Santee mitigation ratios as described in MM-BIO-3.

MSCP conditions of coverage in the MSCP Plan (City of San Diego 1998) require that surveys using appropriate protocols be conducted in suitable habitat proposed to be impacted. No suitable habitat for least Bell's vireo would be impacted within the City of San Diego, but surveys were conducted in all suitable habitat in the BSA in 2019. The San Diego River was considered occupied and was not resurveyed in 2022. Surveys were conducted for least Bell's vireo in 2022 in potential habitat within City of San Diego which are outside of the San Diego River (South Channel); south channel is known to be occupied and was therefore not resurveyed. The project would incorporate mitigation measures consistent with 404(b)1 guidelines. The project would not create conditions attractive to brown-headed cowbirds so the project does not need to monitor and control cowbirds.

4.2.3.2 Other Special-Status Animal Species

Impact BIO-6. Non-Listed Special-Status Species Habitat. The project would have permanent direct impacts on up to 0.80 acres of southern cottonwood-willow riparian forest (including disturbed) potentially suitable as breeding habitat for yellow warbler, yellow-breasted chat, vermilion flycatcher, western bluebird, Cooper's hawk, and white-tailed kite; suitable as habitat for two-striped garter snake; and suitable as habitat for mule deer (Table 4-5). The loss of 0.80 acres of habitat for these species would be a potentially significant impact on special-status species.

Conditions of MSCP coverage for Cooper's hawk include a 300-foot impact avoidance buffer around active nests and minimization of disturbance to oak riparian forests (City of San Diego 1998).

No Cooper's hawk nests, or nesting activities were observed within the BSA during project surveys. The project has been redesigned to minimize disturbance to riparian forests within City of Santee and would completely avoid impacts on riparian forests within the City of San Diego.

Impact BIO-7. Nesting Birds. Impacts on native or naturalized vegetation during the breeding season have the potential kill nesting birds or their eggs or young, including special-status birds such as least Bell's vireo, yellow warbler, yellow-breasted chat, vermilion flycatcher, western bluebird, Cooper's hawk, and white-tailed kite. Any project related activities that result in the death of nesting birds could be a violation of state and federal laws and would be a significant impact under CEQA.

4.2.3.3 Cormorant Rookery

Because double-crested cormorants are only considered CDFW sensitive at nesting sites, potential indirect effects are discussed in Section 4.2.4.2, Wildlife Nursery Sites.

4.2.3.4 Crotch's Bumble Bee

Although the project site does not have high potential with respect to supporting nesting or foraging Crotch's bumble bee, and Crotch's bumble bee was not observed during focused surveys in 2024, if the species is present underground during ground disturbance, impacts on a Crotch's bumble bee nest would be potentially significant.

Impact BIO-8. Crotch's Bumble Bee. Although Crotch's bumble bee is not known from the BSA, and the project site has low potential to support nesting or foraging Crotch's bumble bee, if the species were present, and underground during ground disturbance, then impacts on a Crotch's bumble bee nest would be significant.

4.2.3.5 Western Spadefoot

Although the project site has only low potential with respect to western spadefoot occurrence and minimal potential breeding habitat exists within the impact area, if this primarily subterranean species is present during ground disturbance, impacts on upland western spadefoot would be potentially significant.

Impact BIO-9. Western Spadefoot. Although western spadefoot is not known from the BSA, the project site has low potential to support breeding or estivating western spadefoot, and a survey in 2025 was negative, if the species were present, then impacts to western spadefoot would be significant.

4.2.3.6 Western Burrowing Owl

Impact BIO-10. Western Burrowing Owl. Although western burrowing owl is not known from the BSA, suitable habitat was not found within the BSA, and the project site has low potential to support wintering or breeding western burrowing owl, if suitable burrows become present within the open habitats on site, then there is potential for them to colonize the BSA. Burrowing owl may colonize during any time of the year. If the species were present, then impacts to western burrowing owl would be significant.

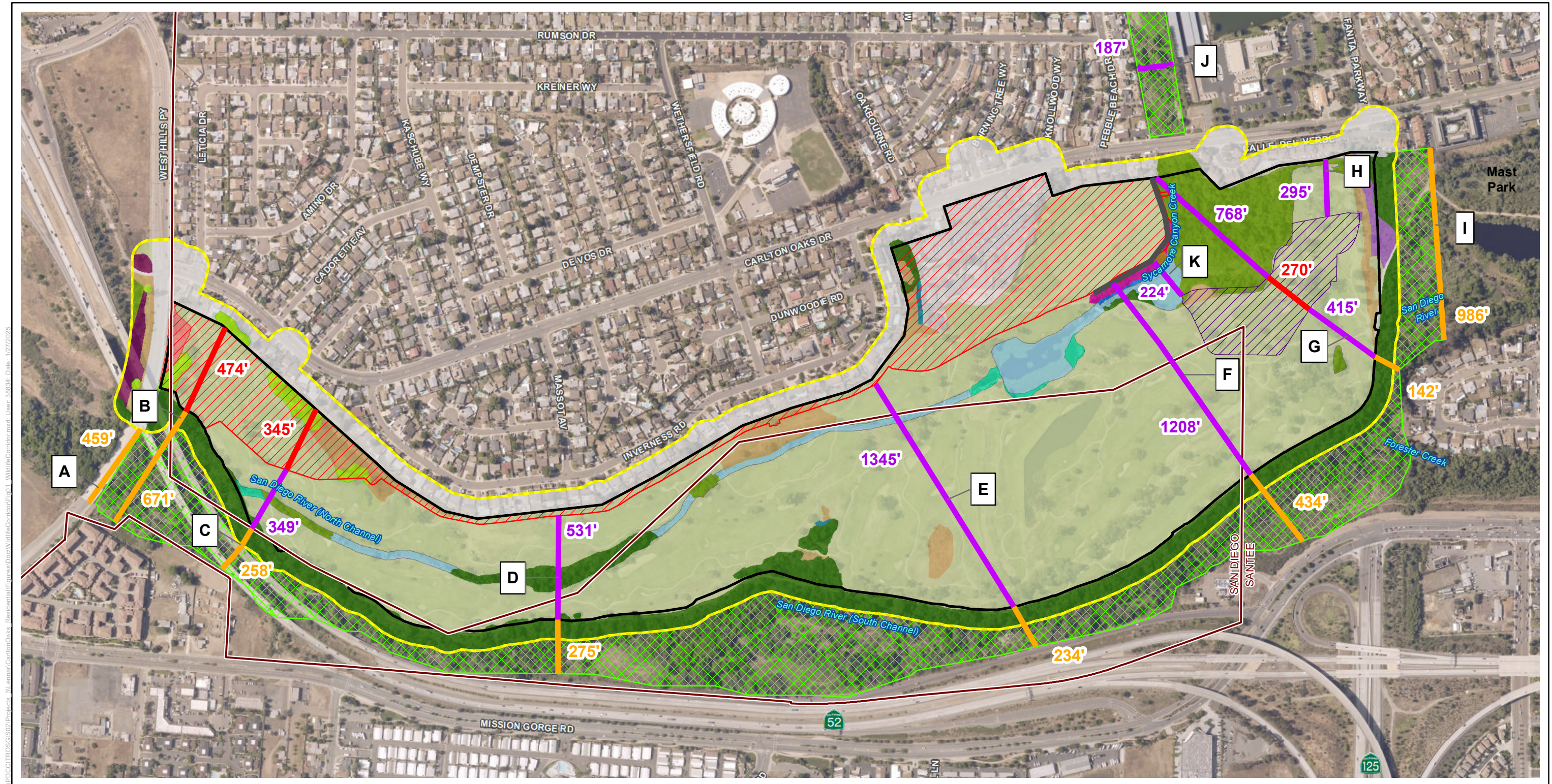
4.2.4 Wildlife Corridor and Nursery Sites

4.2.4.1 Wildlife Corridor

Wildlife corridors are intended to allow for genetic flow of microfauna and macrofauna at a landscape level. Currently, the project site functions as both live-in and foraging habitat for a wide variety of large and small wildlife and partial territory for larger mammals (i.e., mule deer). As discussed in Section 3.3.2.4, *Habitat Connectivity and Wildlife Corridors*, the BSA is situated directly adjacent to and parallel with of San Diego River and is part of the habitat connectivity that exists in this area. The San Diego River through the City of Santee is not identified in the MSCP Plan as a Habitat Linkage or in the California Essential Habitat Connectivity Project as an Essential Connectivity Area. The San Diego River (South Channel) is primarily within the City of San Diego MHPA and is considered the primary wildlife corridor for this analysis, while the golf course and San Diego River (North Channel) are considered a secondary movement corridor (Figure 12).

Figure 12 presents a depiction of the existing primary and secondary wildlife movement corridor widths through the San Diego River and Carlton Oaks Golf Course, and the widths of the secondary wildlife movement corridors that would result from the proposed project. The project would have no direct development of the primary wildlife movement corridor (The San Diego River [South Channel] riparian corridor). Figure 12 depicts the proposed development boundaries of the clubhouse and hotel area, Residential North, and Residential West. This figure depicts the approximate widths of the riparian corridor, the width of the golf course, and widths of associated development. Residential North is situated within the limits of the current clubhouse and driving range. The back of the existing driving range faces Sycamore Canyon Creek and San Diego River (North Channel) with a 6-foot-tall chain link fence against a ball-fence, a net that varies from 15- to 30-feet tall. The existing fence is depicted on Figure 12. Because of the height of the fences, it is considered an existing barrier to wildlife movement, therefore representative corridor width "F" terminates at the fence.

At the proposed Residential West area, the existing conditions include the San Diego River to the south, existing residential development with backyard fences to the northeast, and West Hills Parkway to the west. West Hills Parkway includes a steep slope from the golf course to a highly trafficked four-lane, with chain link fences at portions of the top and bottom. While wildlife may utilize this area for nighttime movement, any existing east-west movement is expected to occur along the adjacent San Diego River riparian corridor. The proposed Residential West area would be tucked into this pocket between existing residential and West Hills Parkway embankment.



Project Site

- Project Site
- Biological Study Area
- City of Santee/San Diego Municipal Boundary

Source: Biological Resources-ICF (2022); Hunsaker & Associates (2023); Imagery-SANGIS (2023)

ICF

Wildlife Corridor

- Primary Movement Corridor
- Secondary Movement Corridor
- Proposed Project Development in Secondary Corridor
- Existing Fence at Driving Range

Vegetation Classification (Holland Code)

Riparian

- Mule Fat Scrub-disturbed (63310)
- Non-Native Riparian (65000)
- Southern Cottonwood-Willow Riparian Forest (61330)
- Southern Cottonwood-Willow Riparian Forest-disturbed (61330)

Wetlands

- Coastal and Valley Freshwater Marsh (52410)
- Disturbed Wetland (11200)
- Fresh Water (64140)

Upland

- Diegan Coastal Sage Scrub-disturbed (32500)

Other

- Southern Riparian Scrub (63320)
- Non-Native Grassland (42200)
- Non-Native Woodland (79000)
- Developed/Disturbed
- Developed (12000)
- Developed-Golf Course
- Disturbed Habitat (11000)
- Eucalyptus Woodland (79100)
- Unmapped Riparian Corridor

0 225 450 Feet

1 in = 500 feet

Figure 12
Wildlife Corridor Analysis
Carlton Oaks Country Club and Resort

The primary wildlife corridor from Mission Trails toward the City of Santee constricts to approximately 459 feet as it passes under West Hills Parkway (Figure 11, cross-section A). Cross-section B is immediately downstream of the confluence of San Diego River (South Channel) and San Diego River (North Channel) and the width of the riparian corridor expands to 670 feet. Under the proposed development, while the “secondary” wildlife movement corridor would reduce to zero at this location, the primary wildlife movement corridor expands to the widest extent since Mast Park to the east (Cross-section I). Cross-section C shows the width of the primary wildlife corridor as 258 feet as it passes under the tall SR-52 bridges, a proposed width of the secondary corridor of 349 feet, including the San Diego River (North Channel) and development of approximately 345 feet. The proposed west residential area is tucked into a pocket of the existing golf course, bounded to the west by West Hills Parkway (with existing, associated chain-link fencing over much of that length) and suburban residential development to the north, both of which restrict wildlife movement to the west or north.

Cross-sections D and E show representative widths in the existing and proposed golf course area. While the depicted widths of the secondary corridor stop at the “Permanent: Impact Residential” line, the development in this area is a maintenance-vehicles-only road which would not constrain wildlife movement.

From the east side of the site, the river corridor and associated riparian areas are nearly 1,000 feet wide within Mast Park (Cross-section I). Moving west from there, the main channel of the San Diego River turns south and constricts to 142 feet at Cross-section G before widening to 434 feet downstream of the confluence with Forester Creek (Cross-section F). Dirt trails in Mast Park feed into the trail along the north edge of the primary wildlife corridor (following the berm), allowing for focused wildlife movement along this trail adjacent to the shelter of the riparian corridor. The secondary wildlife corridor would remain 415 feet wide at cross-section G, providing a wide buffer from the clubhouse and hotel to the trail and primary wildlife movement corridor. To the north of the clubhouse and hotel (Cross-section H), a very narrow tributary of the San Diego River passes through an existing culvert, eventually meeting up with Sycamore Canyon Creek. The area north of the clubhouse and hotel would remain as golf course (putting green and a private emergency access road), allowing secondary movement of wildlife from Mast Park to the internal avoided riparian area and the narrow Sycamore Canyon Creek channel to the north. Downstream from the proposed clubhouse and hotel, the secondary movement corridor would remain over 1,000 feet wide with the golf course serving as a buffer area between primary movement corridor and the proposed development.

Sycamore Canyon Creek to the north of the project, is constrained at generally less-than 200 feet wide (Cross Section J), with residential areas to the west and a chain-link fence to the east separating the creek from Santee Lakes and is constrained for approximately 1.5 miles. Because of the distance of constraint, Sycamore Canyon Creek from Santee Lakes to Carlton Oaks provides potential for limited, constrained local wildlife movement, but is not considered a wildlife corridor. The MSCP Plan and the California Essential Habitat Connectivity Project determined that the main wildlife linkage from northern Santee is through the large upland open spaces of East Elliott into Mission Trails. The proposed project would allow for local wildlife movement out of Sycamore Canyon Creek to the east through the golf course (Cross-Section H) and to the southeast along the San Diego River (South Channel) and into the golf course. Cross Section K). With the proposed project, a road would be constructed in the golf course between Residential North and the clubhouse, with a bridge over the San Diego River (North channel). The area under the bridge would vary between 5 and 12 feet, with 90% of the length being 8 feet or greater in height. Assuming a

bridge deck length of 265 feet, deck width of 36 feet (30 feet of travel lanes and 6 feet of trail), and a conservative average clearance of 8 feet, this would result in an openness ratio of 300:1, which would be tall and open enough to accommodate even the largest expected or potential species (i.e., mule deer, mountain lion, coyote), and certainly any smaller species (e.g., bobcat, gray fox). The structure will become inundated during 100-year flood flows, but it will still provide ample opportunity for wildlife movement in this otherwise constrained area.

4.2.4.2 Wildlife Nursery Sites

A wildlife nursery site was identified within the golf course. Trees located adjacent to the pond on San Diego River (North Channel) serve as a rookery (i.e., breeding colony) for the native seabird double-crested cormorant. This site is one of the only known double-crested cormorant rookeries in San Diego County (Unitt 2004). Double-crested cormorant return to this site annually to raise their young; therefore, this site is considered a native wildlife nursery site. These pond-side trees would not be removed during golf course redesign grading. However, construction noise and activity associated with the regrading and redesign of the golf course and construction of the golf resort, if they were to occur during the breeding season, have the potential to disrupt the breeding activities of double-crested cormorants. Disruption or loss of breeding at this rookery would result in a significant impact on a wildlife nursery site (Impact BIO-11).

Impact BIO-11. Cormorant Rookery. Construction noise and activity associated with the regrading and redesign of the golf course and construction of the golf resort, if they occur during the breeding season, have potential to disrupt the breeding activities of double-crested cormorants. Disruption or loss of breeding at this rookery would be a significant impact on a wildlife nursery site.

4.3 Indirect Impacts

Various temporary indirect impacts may result from project construction activities. Development of the project would result in a variety of permanent indirect impacts on surrounding sensitive biological resources. Residential development can promote habitat loss and fragmentation; degrade soil, air, water, and visual quality; promote brood parasitism, by increasing cowbird populations; introduce nonnative species; alter the composition of wildlife communities; and increase predation by domestic animals. Commercial development may have fewer indirect impacts, although lighting impacts can be greater (City of San Diego 1998). The following sections describe the potential level of indirect impacts that may occur as a result of the proposed project. Indirect impacts resulting from human access, domestic animals, exotic species, and lighting would be avoided through the following Project design features: (1) permanent fencing shall be installed around biological open space, which is currently unprotected, and signs precluding access shall be posted; (2) only non-invasive plant species would be included in the landscape plan for the site (species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council (Cal-IPC; 2006); and (3) all project-related lighting would be required to adhere to Santee Municipal Code. Lighting within the proposed Project footprint adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from these areas.

4.3.1 Construction Noise

Construction activities would comply with local agency construction noise requirements of the Cities of Santee and San Diego, as contained in Section 5.04 of the Santee Municipal Code and Section

59.0404 of the City of San Diego Municipal Code. These restrictions prohibit construction activities between the hours of 7:00 p.m. and 7:00 a.m. and on Sundays and legal holidays, and limit construction noise levels to not exceed an average of 75 A-weighted decibels (dBA) at the property line of a residential use over an 8- or 12-hour period.

Impact BIO-12. Construction Noise. Indirect, temporary impacts on special-status animal species could occur during project construction due to construction-related noise from such sources as clearing, grubbing, and grading. Nesting special-status bird species can be adversely affected by construction noise levels that exceed a 60 dBA leq equivalent sound level hourly average or ambient conditions (whichever is greater). Construction noise could cause an indirect, temporary impact on special-status animal species even with compliance with the noise requirements of the Cities of Santee and San Diego. These indirect, temporary impacts from noise could be potentially significant, particularly if they occur during the breeding season of special-status avian species.

4.3.2 Human Activity

A goal of site development is to increase the active recreational use of the golf course. Active recreation may be an acceptable use adjacent to the MHPA (City of San Diego 1998). The MHPA was mapped over the existing golf course, which was established in 1958. There are other places within the City of San Diego where the MHPA overlaps with golf courses. Golf course users are expected to remain on the golf course and not enter undeveloped areas of the adjacent MHPA because of the presence of a physical existing berm up to 12 feet tall, fencing, and the density of adjacent riparian forest. Therefore, there would be no potentially significant indirect impacts from active recreation.

The existing path along the berm between the golf course and the San Diego River (South Channel) currently allows for recreational use along the riparian boundary. Improvements of this path to the multi-use San Diego River Trail have been planned by SANDAG (SANDAG 2017).

Impact BIO-13. Indirect Human Activity. The proposed project would increase human activity in the vicinity of sensitive habitat, including occupied vireo habitat, on the western and northeastern sides of the project as the existing golf course land use adjacent to the San Diego River habitat is converted to residential and commercial land uses. Project design features such as fences and retaining walls would help reduce potential indirect impacts from human activity. However, additional measures, such as signage, are required to reduce indirect human activity impacts to a less than significant level.

4.3.3 Invasive Plants

Invasive exotic (nonnative) plant species can be introduced into adjacent habitat by several means. Invasive exotic plant species can be planted as part of the ornamental landscaping of development or plantings of new residences. Weeds can be introduced by increased movement of people or domestic animals along native areas. Weeds can also be introduced from construction vehicles brought onto the site, tracking in soil containing weed seeds.

The proposed project would not indirectly affect natural vegetation communities with invasive plants. The vegetation palette of the proposed project would not include invasive plant species, and no invasive plant species would be planted in or adjacent to the MHPA. Since the golf course will be planted with a hybrid Bermuda grass species per industry standards, a 10-foot buffer has been established to separate all golf turf from riparian areas. The buffer zone will be planted with native

bunch grasses which will contain the Bermuda grass within the playable golf boundary. The buffer zones are noted on the Grassing Plan for the golf course. The golf course redesign would remove existing ornamental trees, such as Brazilian peppertree, that are considered invasive. Project design features would ensure that there would be no potentially significant indirect impacts from invasive plants.

4.3.4 Nuisance Animals

Argentine ants (*Linepithema humile*) are a nonnative species of ant that are promoted by irrigation and urbanization (USFWS 2006). Argentine ants may pose a problem to the least Bell's vireo in the riparian-urban interface of the San Diego River. The current conditions of irrigation needed to sustain a golf course may contribute to Argentine ant populations; conversion of a portion of the golf course to residential and commercial development is not expected to significantly increase water use and Argentine ant populations compared to the existing conditions.

Brown-headed cowbirds are nest parasites of native songbirds including special-status species such as least Bell's vireo. Brown-headed cowbirds were observed in low numbers during the surveys for least Bell's vireo and southwestern willow flycatcher in 2019. Brown-headed cowbird populations can be augmented by golf courses that serve as foraging habitat. The total area of golf course would be reduced within the proposed project, so the project is not expected to promote the increase of brown-headed cowbird populations.

Impact BIO-14. Domestic Animals. Animals associated with residential development can have a negative effect on wildlife. Free-ranging cats and off-leash dogs can prey on wildlife and have potential to spread zoonotic diseases to wildlife and other domestic animals. Because least Bell's vireo normally constructs nests at the low height of approximately 3 feet, there is the potential for increased predation of adult and nestling least Bell's vireo by an increased abundance of free-range cats. Increased predation of special-status bird species would represent a potentially significant impact. Homeowner education shall be required to reduce the potential increase of domestic pets generated due to the proposed residential homes adjacent to existing open space.

4.3.5 Nighttime Lighting

Artificial nighttime lighting can cause negative effects on wildlife, including disrupting foraging and dispersal patterns, increasing predation risk, disrupting biological clocks, and increasing mortality risks along roads (Beier 2006). Nighttime lighting within the golf course would be compliant with City of San Diego Outdoor Lighting Regulations Section 142.0740 (f), so that any exterior lighting would be limited to low-level lights and shielded to minimize the amount of light entering the adjacent sensitive biological resource areas. All development within the City of Santee is required to conform with the City of Santee Municipal Code 13.30.030 performance standards, which state in part "All lighting shall be designed and adjusted to reflect light away from any road or street, and away from any adjoining premises. All lights and illuminated signs shall be shielded or directed so as to not cause glare on adjacent properties or to motorists." Development within the City of Santee would be designed so that project lighting does not cast light into natural or revegetation areas. Conformance with Santee Municipal code and implementation of project design features would prevent significant indirect impacts of nighttime lighting on adjacent sensitive habitat.

4.3.6 Water Quality

Water runoff from urban development has potential to permanently impact local water quality and the ecological systems associated with riparian and wetland vegetation communities. The development of the country club and resort is required by state laws to comply with current regulations promulgated by the RWQCB for water quality. Proprietary water quality systems have been included within the project design to collect runoff and stormwater to allow on-site treatment of water flows. Implementation of project design features are expected to prevent a permanent impact on local water quality.

Impact BIO-15. Water Quality. Water and sediment runoff from the construction area has the potential to temporarily impact local water quality, and sediment deposition can negatively affect wetland vegetation communities. Erosion of sediments during rain events during construction could deposit into waterways or wetlands and negatively affect the hydrology and associated ecology of the system. Temporary indirect impacts on sensitive wetland vegetation communities would be a potentially significant impact.

4.3.7 Fugitive Dust

Impact BIO-16. Fugitive Dust. Dust resulting from heavy equipment grading the project could settle on nearby vegetation and interfere with the photosynthetic process of native vegetation, which could be a potentially significant impact on sensitive vegetation communities.

4.4 Cumulative Impacts

This project would develop and convert up to 0.19 acres of upland Diegan coastal sage scrub habitat within the City of San Diego (Table 4-1). The City of San Diego impacts are entirely within the MSCP. The EIR for the MSCP addressed cumulative impacts. Impacts within the City of San Diego may rely on the MSCP to determine that the project's impacts are not cumulatively considerable. The impacts within the City of San Diego would be mitigated following the requirements of the MSCP City of San Diego subarea plan; therefore, cumulative impacts from impacts within the City of San Diego would be less than significant.

Unmitigated impacts on 1.73 acres of native and naturalized habitat within the City of Santee would be a cumulatively significant impact. However, this project would be consistent with the MSCP and would provide compensatory habitat-based mitigation. The project has been designed to avoid direct impacts on existing or proposed undeveloped preserve areas. Development is clustered near existing residential development, and the golf course will remain as a buffer in many areas between development and open space. Development has been situated to avoid impacting movement corridors.

Mitigation measures have been identified and, if implemented, would reduce the direct impacts on habitat and vegetation communities and reduce the cumulative impact to less than significant.

4.5 MSCP San Diego Subarea Consistency

The City of San Diego Land Development Guidelines (City of San Diego 2018) outlines the methods for analyzing impacts to biological resources, one of which is ensuring that a project is consistent with the MSCP (Appendix II, Guidelines for Conducting Biology Surveys in City of San Diego 2018). The following criteria are established in Section VI.G of the Guidelines for Conducting Biology Surveys and describe how a project should be analyzed against the MSCP to determine if the project will provide for the long-term viability of wildlife and sensitive habitats.

Appendix II, Guidelines for Conducting Biology Surveys in City of San Diego, Section VI.G:

- G. Discuss the following consistency issues with the MSCP (Discuss how the project will provide for the long-term viability of wildlife and sensitive habitats):
1. Whether or not the project lies within or adjacent to the MHPA (see interactive mapping feature on the following web site: www.sangis.org; Page 12, MSCP).
 - *Project Analysis:* MHPA exists within the proposed project. The original MHPA boundary for the site was established as part of the regional MSCP mapping efforts, which became effective in March 1997. MHPA was designated over existing golf course along the southern edge of the project site. Within the project site, the MHPA covers 12.86 acres of golf course and 0.33 acres of riparian habitat. The golf course was established in 1958 and renovated in 1989, long before the original MHPA boundary for the site was established as part of the regional MSCP mapping efforts, which became effective in March 1997. The proposed development will not change any of the current uses within the portions of the site that overlap with the MHPA boundary. The golf course will continue to exist in its current state and the project will not impact the 0.33 acres of MHPA riparian habitat. Therefore, the proposed project is consistent with the MSCP and would be considered a compatible land use (passive recreation) per Section 1.4.1 of the MSCP.
 2. Describe any relevant MHPA Guidelines (map notes).
 - *Project Analysis:* No relevant MHPA Guidelines in the map notes.
 3. Assess compliance with the planning policies and guidelines (is the project an allowed use within the MHPA?).
 - *Project Analysis:* Any redevelopment of golf course within the MHPA would occur within existing developed areas; no sensitive habitat would be impacted within the MHPA by the project.
 4. Address, if applicable, the land use adjacency guidelines (as shown on Page 48, the MSCP Subarea Plan).
 - *Project Analysis:* Land Use Adjacency Guidelines are addressed in Section 5.1.4.
 5. Identify any appropriate management issues per Section 1.5, MSCP Subarea Plan.
 - *Project Analysis:* Section 1.5.6 of MSCP San Diego Subarea Plan details specific management directives for the Eastern Area. The project site is within the Eastern Area (Mission Trails and East Elliott). No specific management directives are applicable to the project site.

6. Assess whether any special conditions of coverage apply to the species affected by the project (per Covered Species list, Appendix A, MSCP Subarea Plan).
 - *Project Analysis:* Special conditions of coverage for MSCP-covered least Bell's vireo are addressed in Section 3.5.1.1
7. Discuss any boundary adjustments to the MHPA. If proposed, evaluate for functional equivalency per Sections 1.1.1 and 5.4.2 of the MSCP Subarea Plan.
 - *Project Analysis:* The project is located within the least sensitive portion of the site. The project would not impact any sensitive habitat within the MHPA. The only impacts to sensitive habitat within the City of San Diego are 0.19 acre of impacts to roadside Diegan coastal sage scrub (disturbed) associated with the entrance to the Residential West area.
8. Discuss whether or not the project is located on the least sensitive portion of the site (see Page 5, Biology Guidelines).
 - *Project Analysis:* Any redevelopment of golf course within the MHPA would occur within existing developed areas; no sensitive habitat would be impacted within the MHPA by the project and the project is located on the least sensitive portion of the site.

MSCP Subarea Plan Section 1.4.1 Compatible Land Uses

The following land uses are considered conditionally compatible with the biological objectives of the MSCP and thus will be allowed within the City's MHPA:

- Passive recreation
- Utility lines and roads in compliance with policies in 1.4.2 below
- Limited water facilities and other essential public facilities
- Limited low density residential uses
- Brush Management (Zone 2)
- Limited agriculture

Under the proposed revised environmental land use regulations described in Section 1.6, development on private property in the MHPA will not exceed 25 percent of the parcel, with 75 percent remaining as open space. When combined with the 100 percent preservation in negotiated areas on private lands, the approximately 94 percent preservation on publicly owned lands in the MHPA, and strategic acquisitions, the overall 90 percent preservation goal within the City's MHPA can be met.

Some disturbed lands within the MHPA may be targeted for enhancement and restoration in order to more fully contribute to the functioning of the MHPA. Existing development within the MHPA such as single-family residences on A-1-10 lots are considered conditionally compatible. Expansion of existing permitted uses within the MHPA would need to be in compliance with applicable land use regulations and should provide measures to minimize impacts on the MHPA including lighting, noise, or uncontrolled access. Expansion of uses should be generally restricted to the existing approved development areas. Other existing uses within the MHPA which are not listed above may be managed for compatibility as noted above in Section 1.2 or phased out in the long term.

Project Analysis: The golf course was established in 1958, and the 1959 Lease was entered into by the City of San Diego and the then current golf course operator for the operation and maintenance of the golf course. The golf course has been in existence since that time under the 1959 Lease until it was superseded by the 2012 Lease. The golf course was renovated in 1989, long before the original MHPA boundary for the site was established as part of the regional MSCP mapping efforts, which became effective in March 1997. Moreover, the City of San Diego subsequently entered into the 2012 Lease that allowed for the continued use as a golf course after the MSCP was established by the City. The project has been reviewed in accordance with the MSCP, specifically sections 1.4.1, 1.4.2, 1.4.3, 1.5.2 and 1.5.6 (see Appendix E, Section 4.5).

The proposed development will not change any of the current uses that have been under continued existence since 1959 within the portions of the site that overlap with the MHPA boundary. The golf course will continue to exist in its current state as allowed pursuant to the 2012 Lease. Moreover, the project will not impact the 0.33 acres of MHPA riparian habitat. Since the proposed project will not result in any impacts to the MHPA, and all uses within the MHPA will remain the same, the project is considered a compatible land use per Section 1.4.1 of the MSCP and the golf course land use is what was envisioned by the city prior to the adoption of the MHPA.

Since the proposed project will not result in any impacts to the MHPA, and all uses within the adjacent to the MHPA will remain the same, the project is considered a compatible land use per Section 1.4.1 of the MSCP. The existing and redesigned golf course does not require any brush management zones within or adjacent to the MHPA.

MSCP Subarea Plan Section 1.4.2 General Planning Policies and Design Guidelines

The following general planning policies and design guidelines should be applied in the review and approval of development projects within or adjacent to the MHPA. More specific policies and guidelines which are unique to individual MHPA areas are identified under Sections 1.2.2 - 1.2.5, and management policies and directives are in Section 1.5.

Roads and Utilities – Construction and Maintenance Policies:

1. All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.
 - a. *Project Analysis:* Since the proposed project will place utility lines within or adjacent to the MHPA, these design guidelines do not apply.
2. All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species, and wetlands. If avoidance is infeasible, mitigation will be required.
 - a. *Project Analysis:* The proposed project will not place any utilities or associated facilities within the MHPA.
3. Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary

habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.

- a. *Project Analysis:* The proposed project will not result in the loss of temporary loss of habitat within the MHPA.
4. Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.
 - a. *Project Analysis:* As discussed in Section 4.2.4.1, the project would have no direct development of the primary wildlife movement corridor (The San Diego River [South Channel] riparian corridor). The existing Carlton Oaks Golf Course is functionally a savanna, with expansive 'lawns' of golf course features, with scattered ornamental trees throughout. The golf course provides for active recreation during the day, but is essentially unoccupied by humans at night, allowing for easy, additional wildlife movement through this savanna-like community. Post construction, the portions of the golf course within the MHPA will continue to function as this "savanna" habitat.
5. Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.
 - a. *Project Analysis:* The proposed project does not include roads within or adjacent to the MHPA and therefore these design guidelines do not apply.
6. Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully-functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.
7. *Project Analysis:* The proposed project does not include roads within or adjacent to the MHPA and therefore these design guidelines do not apply.
8. Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.
 - a. *Project Analysis:* The proposed project does not include roads within or adjacent to the MHPA and therefore these design guidelines do not apply.
9. For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained. Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.

- a. *Project Analysis:* The proposed project does not include roads within or adjacent to the MHPA and therefore these design guidelines do not apply.

Fencing, Lighting, and Signage

1. Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).
 - a. *Project Analysis:* Fencing, lighting and signage and materials storage are addressed as a part of section 1.4.3 of the MSCP.
2. Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.
 - a. *Project Analysis:* Fencing, lighting and signage and materials storage are addressed as a part of section 1.4.3 of the MSCP.

Materials Storage

Prohibit storage of materials (e.g., hazardous or toxic, chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.

Project Analysis: Fencing, lighting and signage and materials storage are addressed as a part of section 1.4.3 of the MSCP.

Mining, Extraction and Processing Facilities

Project Analysis: The project does not include any mining and therefore the guidelines related to mining, extraction, and processing facilities do not apply.

Flood Control

1. Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.
 - a. *Project Analysis:* A Flood Study (CLOMR) has been completed for the proposed project. The Preliminary Flood Study proposed revisions to FEMA floodplain, a portion of the floodway delineation, and base flood elevations. Changes and revisions comply with FEMA regulations and ordinances. Approval of the CLOMR would result in remapping of the affected floodplain. The placement of fill would raise the residential development areas out of the floodplain and the clubhouse and resort area above the 100-year flood levels of the floodway. The golf course would be redesigned to allow more flow to pass in flooding situations. The majority of the MHPA within the floodplain is currently golf course and will remain golf course after construction. The small portion of MHPA that consists of native riparian habitat will not be impacted by the proposed project.

2. No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.
 - a. *Project Analysis:* The proposed project will not require any berming, channelization, or man-made constraints or barriers to a creek, tributary, or river within the MHPA and therefore this design criteria does not apply.
3. No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.
 - a. *Project Analysis:* The proposed project will not impact any river, creek, tributary, and channel banks within the MHPA and therefore this design criteria does not apply.

MSCP Subarea Plan Section 1.4.3 Land Use Adjacency Guidelines

The MSCP City of San Diego Subarea plans addresses potential direct and indirect impacts on preserve areas from adjacent development in Section 1.4.3, Land Use Adjacency Guidelines (City of San Diego 1997). The Land Use Adjacency Guidelines provide requirements for land uses adjacent to the habitat preserve in order to minimize indirect impacts to the sensitive resources. City of San Diego MHPA exists along the southern boundary of the site. The redesign of the golf course within and adjacent to MHPA considers the guidelines to ensure consistency with them. This discussion can be found in Section 5.1.4.2 of this report.

MSCP Subarea Plan Section 1.5.2 General Management Directives

The following general management directives apply to all areas of the City of San Diego's MSCP Subarea Plan, as appropriate.

Mitigation

Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.

Project Analysis: All mitigation proposed for the project is discussed in Section 5.1. Mitigation has been developed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.

Restoration

Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.

Project Analysis: The proposed project does not require any restoration or revegetation within the MHPA.

Public Access, Trails, and Recreation

Priority 1:

1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.
 - a. *Project Analysis:* A portion of the golf course is located within the MHPA and will remain as an operating golf course following construction. An existing manufactured berm is located along most of the southern and eastern boundary, generally outside the project site and separates the golf course from native habitat.
2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.
 - a. *Project Analysis:* The proposed project does not propose any new trails within the MHPA.
3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.
 - a. *Project Analysis:* The proposed project does not propose any new trails within the MHPA.
4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.
 - a. *Project Analysis:* The proposed project does not propose any new trails within the MHPA.
5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA. Locate staging areas for equestrian uses at a sufficient distance (e.g., 300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.
 - a. *Project Analysis:* The proposed project does not propose any equestrian trails within the MHPA.

6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.
 - a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction. No off-road or cross-country vehicle activity will occur within the proposed project boundaries, and specifically the MHPA.
7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.
 - a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.
 - a. *Project Analysis:* A small portion of native riparian habitat associated with the north channel of the San Diego River overlaps with the MHPA. This area is surrounded by existing golf course, and it is unlikely that homeless and itinerant worker camps will occur within the project, and specifically this portion of the project. However, should these camps become established, they will be removed in accordance with this general management directive.
9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g., grass-lined) swale or basin to detain runoff and remove pollutants.
 - a. *Project Analysis:* The proposed project does not propose any equestrian trails within the MHPA.

Litter/Trash and Materials Storage

Priority 1:

1. Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.
2. Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.
3. Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.
4. Keep wildlife corridor under-crossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.
 - a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction. The 0.33 acre of riparian habitat within the MHPA will not be impacted by the proposed project. Therefore, these priorities

related to trails, trash, material storage and wildlife corridors do not apply to the proposed project.

Priority 2:

1. Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a “Neighborhood Watch” type program), and/or enforcement.
 - a. *Project Analysis:* The project site is not subject to dumping issues and therefore this priority does not apply.

Adjacency Management Issues

The following management directives are in addition to those outlined in Section 1.4.3, and refer more specifically to management and monitoring requirements.

Priority 1:

1. Enforce, prevent and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.
2. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.
3. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.
 - a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction. Houses will not be located within or adjacent to the MHPA. An existing manufactured berm is located along most of the southern and eastern boundary of the golf course, generally outside the project site and separates the golf course from native habitat and therefore additional barriers are not needed.

Invasive Exotics Control and Removal

Priority 1:

1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.
 - a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species’ biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell’s vireo. Avoid removal activities during the reproductive seasons of sensitive species and avoid/

minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.

- a. *Project Analysis:* The portion of the golf course located within the MHPA will remain as an operating golf course following construction. There are no areas of MHPA within the project site that would benefit from invasive removal.

Priority 2:

1. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los Peñasquitos Canyon Preserve.
 - a. *Project Analysis:* Not applicable.
2. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.
 - a. *Project Analysis:* Not applicable.
3. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.
 - a. *Project Analysis:* Not applicable.
4. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.
 - a. *Project Analysis:* Not applicable.

Flood Control

The following management directives are in addition to the general planning policies and guidelines outlined in Section 1.4.2.

Priority 1:

1. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.
 - a. *Project Analysis:* Not applicable.

Priority 2:

1. Review existing flood control channels within the MHPA periodically (every five to ten years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.
 - a. *Project Analysis:* Not applicable.

MSCP Subarea Plan Section 1.5.6 Specific Management Policies and Directives for the Eastern Area

Mission Trails Regional Park

Priority 1:

A Natural Resource Management Plan (NRMP) will be prepared for the park to preserve and protect natural resources while encouraging public use and implementation of the Master Development Plan. Coordinate the preparation of the NRMP with MSCP planners.

1. Maintain and clearly demarcate trails around the visitors center and other areas of high public use to minimize habitat destruction.
2. Limit future equestrian trails to specified trails which minimize trail edge disturbances and are no greater than 25 percent gradient.
3. Seasonally restrict, if necessary, areas along the San Diego River, including riparian restoration areas (except along established trails) to prevent disturbance of breeding areas.
4. As envisioned by the Master Development Plan, revegetate areas with erosion or denuded slopes.
5. Incorporate adequate setbacks into future plans to develop an equestrian center near the San Diego River to minimize impacts associated with cowbird parasitism. Establish a cowbird trapping program to minimize effects on the least Bell's vireo and other songbirds.
6. Minimize lighting for the campground and collect garbage frequently to reduce nuisance wildlife (raccoons, opossums, skunks).
7. Establish signs to direct access and provide educational information at the periphery of sensitive resource areas and at points of access. Post signs to prohibit campfires, pets, firearms and camping (except where allowed). Also post road signs to identify wildlife corridors to help reduce road kills. Priority 2: 1. Reclaim active and abandoned mineral extraction areas as required by the State's Surface Mining and Reclamation Act of 1975.
 - a. *Project Analysis:* Not applicable.

East Elliott

Priority 1:

Protect the remaining populations of San Diego ambrosia in the private property area immediately to the east of the Kumeyaay Lake campground. Explore methods to protect and enhance the San Diego ambrosia population in the area such as transplanting to more remote areas, or the use of split rail fencing and signage.

2. If the eastern area develops with urban uses, implement programs to educate future adjacent landowners pursuant to the general adjacency management guidelines in Section 1.5.2.
 - a. *Project Analysis:* Not applicable.

Chapter 5

Avoidance and Mitigation Measures

5.1 Mitigation Element

This section identifies avoidance, minimization, and compensatory mitigation measures for the proposed project's direct, indirect, and cumulative impacts on sensitive vegetation communities, jurisdictional waters and wetlands, and special-status plant and animal species within the BSA. This section also identifies measures that will be incorporated into the project to avoid impacts on biological resources. However, complete avoidance of all sensitive biological resources is not feasible. As a result, this section identifies compensatory mitigation measures for impacts that cannot feasibly be avoided.

5.1.1 Riparian Habitat and Other Sensitive Natural Communities

Proposed habitat mitigation ratios and corresponding acreages for impacts on sensitive upland vegetation communities are presented in Table 5-1 and permanent impacts on wetland and riparian vegetation are presented in Table 5-2. Mitigation ratios are based on the City of San Diego Biological Guidelines and the 2018 Wildlife Agency draft Santee MSCP Subarea Plan. Proposed habitat mitigation ratios and corresponding required mitigation acreages for temporary impacts on sensitive vegetation communities (San Diego River (North Channel) and Golf Course Emergency Access Road Area) are presented in Tables 5-3 and 5-4.

Table 5-1. Proposed Mitigation for Impacts on Sensitive Upland Vegetation Communities

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|-----------------------------------|---|---------------------------------|-----------------------------|--|
| City of San Diego | Diegan Coastal Sage Scrub – disturbed† Permanent On-Site Impact | 0.08 | 1:1 | 0.08 |
| | Diegan Coastal Sage Scrub – disturbed† Permanent Off-Site Impact | 0.11 | 1:1 | 0.11 |
| City of San Diego Subtotal | | 0.19 | N/A | 0.19 |
| City of Santee | Diegan Coastal Sage Scrub – disturbed Permanent Impact | 0.41 | 1:1 | 0.41 |
| | Non-Native Grassland Permanent Impact | 0.01 | 1:1 | 0.01 |
| City of Santee Subtotal | | 0.42 | N/A | 0.42 |
| Project Totals | | 0.61 | N/A | 0.61 |

†=MSCP Tier II; impacts outside MHPA, mitigation within MHPA through City of San Diego Habitat Acquisition Fund.

Table 5-2. Proposed Mitigation for Permanent Impacts on Wetland and Riparian Vegetation Communities

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Permanent Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|-----------------------|--|---|-----------------------------|--|
| City of Santee† | Disturbed Wetland | 0.12 | 2:1 | 0.24 |
| | Mule Fat Scrub – disturbed | 0.34 | 3:1 | 1.02 |
| | Non-Native Riparian | 0.04 | 2:1 | 0.08 |
| | S. Cottonwood-Willow Riparian Forest | 0.50 | 3:1 | 1.50 |
| | Southern Cottonwood-Willow Riparian Forest – disturbed | 0.30 | 3:1 | 0.90 |
| Project Totals | | 1.30 | N/A | 3.74 |

† = No impacts on wetland or riparian habitat within City of San Diego

Temporary impacts along San Diego River (North Channel) would occur as a result of dewatering the golf course pond within the mainstem of Sycamore Creek during construction of the bridge are presented in Table 5-3. All 1:1 mitigation will occur in situ through the re-establishment of preexisting channel bottom and removal of the dewatering weirs to allow for the passive re-establishment of open water, riparian and marsh habitat. Temporary impacts within the Golf Course Emergency Access Road Area, and mitigation ratios and corresponding acreages for temporary impacts on vegetation communities are presented in Table 5-4.

Table 5-3. Proposed Mitigation for Temporary Impacts Along San Diego River (North Channel)

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Temporary Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|------------------------|--|---|-----------------------------|--|
| City of Santee† | Coastal and Valley Freshwater Marsh | 0.56 | 1:1‡ | 0.56 in situ |
| | Fresh Water (Open Water) | 2.43 | 1:1 | 2.43 in situ |
| | Non-Native Riparian | 0.05 | 1:1 | 0.05 in situ |
| | Southern Cottonwood-Willow Riparian Forest | 0.01 | 2:1 | 0.01 in situ+ 0.01 enhancement |
| Project Totals‡ | | 3.05 | N/A | 3.05 in situ+ 0.01 enhancement |

† = No impacts on wetland or riparian habitat within City of San Diego

‡ = 1:1 mitigation for temporary impacts through re-watering of dewatered habitat at original location.

Table 5-4. Proposed Mitigation for Temporary Impacts within Golf Course Emergency Access Road Area

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Temporary Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|------------------------|--|---|-----------------------------|--|
| City of Santee† | Mule Fat Scrub-disturbed | 0.02 | 2:1 | 0.02 in situ + 0.02 enhancement |
| | Southern Cottonwood-Willow Riparian Forest-disturbed | 0.06 | 3:1 | 0.06 in situ + 0.12 enhancement |
| Project Totals‡ | | 0.08 | N/A | 0.08 in situ + 0.14 enhancement |

MM-BIO-1 through MM-BIO-10 have been identified to avoid impacts on sensitive vegetation communities to the extent feasible and compensate for sensitive vegetation community impacts that cannot feasibly be avoided. Implementation of the restoration and preservation of habitat consistent with the San Diego Subarea Plan mitigation ratios would reduce the significance of impacts on sensitive vegetation within City of San Diego (Impact BIO-1) to below a level of significance. Implementation of restoration and preservation of habitat would reduce the significance of impacts on sensitive vegetation (Impact BIO-2 and Impact BIO-3) to below a level of significance.

Impact BIO-1 is proposed to be mitigated through the City of San Diego's Habitat Acquisition Fund, for the 0.08 acres of impacts. This would be appropriate because of the small size of the habitat patch, the low quality and isolation, and lack of occupancy by sensitive species, as discussed in Section 4.2.1.1.

MM-BIO-1. Mitigate Permanent Impacts within City of San Diego on Sensitive Upland Vegetation Communities (see MM-BIO-2 for complementary City of Santee measure). Direct permanent impacts to 0.08 acre disturbed Diegan coastal sage scrub (outside of Multi-Habitat Planning Area) and direct, temporary off-site impacts to 0.11 acre disturbed Diegan coastal sage scrub (outside of MHPA), 0.19 acre total within the City of San Diego shall be mitigated at a 1:1 ratio in accordance with the Upland Mitigation Ratios in the City of San Diego Biological Guidelines (as specified in Table 3 of the Biological Guidelines). Prior to any ground disturbance activities or issuance of grading permits by the City of San Diego, the applicant shall provide a contribution into the City of San Diego Habitat Acquisition Fund (HAF). The HAF fee calculated shall be based on the current market rate amount per acre set by Real Estate Assets Department (READ) each year at the trigger time. Per the City of San Diego Municipal Code, an additional 10% administration fee is required to be paid for HAF City staff administration and maintenance costs. The 10% fee is calculated and applied after the mitigation HAF amount is determined based upon the required mitigation acreage/ratio. Documentation of this contribution shall be provided to the City of San Diego by the applicant prior to the issuance of any construction permit.

MM-BIO-2. Mitigate Permanent Impacts within City of Santee on Sensitive Upland Vegetation Communities. Direct permanent impacts to disturbed Diegan coastal sage scrub and non-native grassland within the City of Santee shall be mitigated at a 1:1 ratio through either the purchase of mitigation bank credits of Diegan coastal sage scrub (Option 1) or through off-site preservation or on-site creation and preservation of Diegan coastal sage scrub (Option 2).

Option 1. The purchase of mitigation credits shall occur at a mitigation bank approved by the California Department of Fish and Wildlife (CDFW) in the local area or other location deemed acceptable by CDFW. The applicant shall provide evidence of purchase of credits to the City of Santee prior to issuance of grading permits. Evidence of purchase shall consist of the following items:

- A. A copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased.
- B. If not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land.

- C. To ensure the land will be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land.
- D. An accounting of the status of the mitigation bank. This shall include the total amount of credits available at the bank, the amount required by this project, and the amount remaining after use by this project.

Option 2. If habitat credit cannot be purchased in a mitigation bank, then the applicant shall provide for the off-site preservation or on-site creation and preservation of Diegan coastal sage scrub habitat at a 1:1 ratio, as described below, prior to issuance of grading permits by the City of Santee.

- A. **Off-Site Preservation.** The applicant shall provide for the off-site preservation of land that meets criteria for sensitive upland vegetation community mitigation through the recordation of a conservation easement at a location approved by the City of Santee and the Wildlife Agencies (U.S. Fish and Wildlife Service and CDFW) that shall be managed in perpetuity under a Resource Management Plan (RMP) that establishes long-term monitoring, maintenance, management, and reporting directives. The RMP shall be prepared as described in MM-BIO-6. Off-site mitigation shall occur within one of the following areas: (1) preserve areas in the City of Santee, (2) City of San Diego Multi-Habitat Planning Area, or (3) County of San Diego Pre-Approved Mitigation Areas. The off-site land being preserved must be at a location approved by the City of Santee and the Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in an amount determined through preparation of a Property Assessment Record or similar method for determining funding amount. The Conservation Easement shall be owned by a conservancy, or other similar, experienced entity subject to approval by CDFW and CDFW shall be listed as a third-party beneficiary.
- B. **On-Site Restoration and Preservation.** Diegan coastal sage scrub shall be restored and preserved on site at a 1:1 ratio through the recordation of a conservation easement at a location approved by the City of Santee, granted to an entity approved by the City of Santee, and restored pursuant to an Upland Restoration Plan described below. The Conservation Easement shall be owned by a conservancy or other similar, experienced entity subject to approval by CDFW and CDFW shall be listed as a third-party beneficiary. The Upland Restoration Plan shall include the following:
 - 1. Monitoring of the restoration areas shall occur for a minimum of 5 years, or until the 5th year performance/success criteria are met, to determine the successful completion of the 5-year mitigation and monitoring program. The performance standards and success criteria must be approved by the City of Santee and CDFW, and shall include requirements for 100% survival of native shrub container stock plantings at the first annual monitoring (or sufficient number of shrubs emerging from seed to replace the container stock), as well as Year 5 standards of native vegetation cover of at least 90% of that of a nearby Diegan coastal sage scrub reference site. Methods used to measure these performance standards shall be described, and if the restored areas fail to meet the Year 5 standards after the full monitoring term, a specific set of remedial measures shall be developed and implemented, and the monitoring and maintenance period shall be extended until all Year 5 standards are met or as otherwise provided in this document.

The Upland Restoration Plan must be approved City of Santee and CDFW prior to implementation.

2. In the absence of any restoration plan guidance from the City of Santee, the City of San Diego's *General Outline for Conceptual Revegetation/Restoration Plans* shall be used for guidance.
3. The Upland Restoration Plan shall detail the installation, maintenance, and monitoring that would occur as part of the restoration effort.
4. The Upland Restoration Plan shall include an evaluation of restoration suitability specific to proposed vegetation types, soil preparation, plant palettes, irrigation, erosion control, maintenance and monitoring program, and success criteria.

The applicant shall also secure performance bonds prior to issuance of grading permits by the City of Santee that would be released after the City of Santee approves the final success of the restoration site. The specifics regarding long-term management and management funding shall be included in the RMP that establishes long-term monitoring, maintenance, management, and reporting directives. The RMP shall be prepared as described in MM-BIO-6. The final RMP cannot be approved by the City of Santee or CDFW until the following items have been completed: easements shall be dedicated, a qualified Resource Manager approved by the City of Santee shall be selected, and the RMP funding mechanism shall be in place.

MM-BIO-3. Mitigate Permanent and Certain Temporary Impacts within City of Santee on Sensitive Riparian and Wetland Vegetation Communities. Impacts on sensitive riparian and wetland vegetation communities shall be mitigated through on-site restoration, enhancement, and preservation of habitat. The impacts to sensitive riparian and wetland vegetation shall be mitigated at mitigation ratios described below:

- Direct permanent impacts to disturbed wetland shall be mitigated at a 2:1 ratio through preservation of enhanced or restored native wetland habitat.
- Direct permanent impacts to mule fat-disturbed shall be mitigated at a 3:1 ratio through preservation of enhanced or restored riparian scrub habitat (mule fat and/or willow scrub).
- Direct permanent impacts to southern cottonwood willow riparian forest and southern cottonwood willow riparian forest-disturbed shall be mitigated at a 3:1 ratio through preservation of enhanced or restored riparian forest habitat.
- Direct temporary impacts to non-native riparian shall be mitigated at a 1:1 ratio through preservation of enhanced or restored riparian or wetland habitat.
- Direct temporary impacts to southern cottonwood-willow riparian forest (including disturbed) shall be mitigated at a 3:1 ratio through in-situ re-establishment of riparian forest and preservation of enhanced or restored riparian forest.
- Direct temporary impacts to mule fat scrub shall be mitigated at a 2:1 ratio through in-situ re-establishment of mule fat scrub and enhancement of riparian scrub habitat.

The monitoring and restoration requirements for these sensitive riparian and wetland vegetation communities shall be identified in a Habitat Mitigation and Monitoring Plan (refer to MM-BIO-5) and Resource Management Plan (MM-BIO-6). The Habitat Mitigation and Monitoring Plan must be approved by the resource agencies (U.S. Army Corps of Engineers, Regional Water

Quality Control Board, and California Department of Fish and Wildlife), and the Resource Management Plan must be approved by the Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) prior to issuance of grading permits by the City of Santee.

MM-BIO-4. Mitigate Temporary Dewatering Impacts within City of Santee on Sensitive Riparian and Wetland Vegetation Communities. Riparian and wetland vegetation communities within Santee are considered sensitive by the California Department of Fish and Wildlife. Direct temporary impacts to coastal valley freshwater marsh, fresh water, and non-native riparian vegetation shall be mitigated through passive in-situ restoration of habitat to pre-dewatering conditions. The impacts shall be mitigated through implementation of the Habitat Mitigation and Monitoring Plan (refer to MM-BIO-5).

MM-BIO-5. Habitat Mitigation and Monitoring Plan (HMMP). To implement the restoration and enhancement of sensitive riparian and wetland vegetation communities as mitigation for loss of, or temporary impact to, those communities within the project site, as described in MM-BIO-3 and MM-BIO-4, a final HMMP must be approved by the resource agencies (U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife) and the City of Santee prior to issuance of grading permits by the City of Santee. The HMMP shall do the following:

- The draft HMMP shall be used as a basis for the final HMMP. The draft HMMP shall include details for the installation, maintenance, and monitoring that would occur after approval of the HMMP.
- Monitoring shall include monitoring of the restoration/enhancement areas for a minimum of 5 years or until 5th year performance/success criteria are met. The HMMP shall include performance standards to determine the successful completion of the 5-year mitigation and monitoring program. Attainment of these standards shall indicate the restoration area is progressing toward the habitat functions and services specified in the HMMP. Methods used to measure these performance standards shall be described, and if the restored area fails to meet the Year 5 standards after the full monitoring term, a specific set of remedial measures shall be developed and implemented, and the monitoring and maintenance period shall be extended until all Year 5 standards are met or as otherwise provided in the HMMP.
- The HMMP shall include performance bonds that would be released after the City of Santee approves the final success of the restoration site.

MM-BIO-6. Resource Management Plan (RMP). To provide for the long-term management of the mitigation sites (on-site wetland mitigation sites and potential Diegan coastal sage preservation sites), an RMP shall be prepared by a qualified biologist to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity. The RMP shall be approved by the City of Santee and Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife [CDFW]) and implemented prior to any ground disturbance activities or issuance of grading permits by the City of Santee. The RMP shall include the following:

- Delineation of the limits of where the conservation easement will be recorded.
- Selection of a qualified Preserve Manager approved by the City of Santee and Wildlife Agencies.
- Requirements of long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the City of Santee and Wildlife Agencies, that will be managed by the Preserve Manager.

- Monitoring requirements for the mitigation area for a minimum of 5 years or until fifth-year performance/success criteria are met.
- Draft performance standards to determine the successful completion of the 5-year mitigation and monitoring program. Attainment of these standards shall indicate that the restoration area is progressing toward the habitat functions and services specified in the RMP. Methods used to measure these performance standards shall be described, and, if the restored area fail to meet the Year 5 standards after the full monitoring term, then a specific set of remedial measures shall be developed and implemented, and the monitoring and maintenance period shall be extended until all Year 5 standards are met, or as otherwise provided in the RMP.
- Preparation of a Property Analysis Record (prepared for endowment funding) or similar cost estimation to determine the size of a non-wasting endowment necessary to fund the annual costs for basic stewardship of the preserve.
- Identification of what entity would hold the endowment (or equivalent acceptable funding mechanism).

The final RMP document must include the additional following items:

- Evidence of purchase of the mitigation land to be managed.
- Evidence that a conservation easement has been dedicated to CDFW, or other entity approved by CDFW, to ensure that the land is protected in perpetuity.
- Acknowledgment that the resource manager accepts the responsibility for the management of the site.
- Establishment of an endowment or equivalent acceptable funding mechanism.
- Acknowledgment that the City of Santee has approved the entity that will be responsible for holding the endowment.

MM-BIO-7. Qualified Biologist to Provide Construction Monitoring. A qualified biologist shall be responsible for overseeing compliance with all laws, regulations, permit conditions, mitigation measures, and any other biological resources requirements during project construction. Prior to the start of construction, a qualified biologist shall conduct environmental awareness training for all construction personnel. Topics to be included in the training include, but are not limited to, the construction limits; sensitive habitats, features, plants, and animal species to avoid; mitigation measure and/or permit condition requirements; seasonal or other time-related restrictions on construction; and measures related to erosion control and spill prevention. Environmental awareness training shall be repeated for any new construction personnel working on the site. The qualified biologist shall have, at a minimum, a bachelor's degree in biology, ecology, zoology, or a related field of science, and at least 2 years of field experience.

MM-BIO-8. Delineate Environmentally Sensitive Areas. Sensitive vegetation communities, jurisdictional waters and wetlands, and other sensitive biological resources located outside of permanent and temporary impact areas shall be identified on the final construction plans as "environmentally sensitive areas" and protected with temporary fencing (e.g., orange snow fencing). A qualified biologist shall monitor the installation of the temporary fencing and ensure it is installed prior to the start of clearing, brushing, grading, or other ground-disturbing construction activities. A qualified biologist shall inspect the temporary fencing at least twice weekly during

grading, and monthly after grading is complete, to ensure it remains in place throughout construction.

MM-BIO-9. Stormwater Pollution Prevention Plan. To control erosion and sedimentation and to preserve water quality, the applicant will obtain coverage for the project under the Construction General Permit (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). Prior to the issuance of grading permits, the applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) to reduce the potential for water pollution and sedimentation from construction. Best management practices (BMPs) to be included in the SWPPP that must be submitted to the State Water Resources Quality Control Board shall include, but are not limited to, the following:

- The applicant shall not stockpile brush, loose soils, excavation spoils, or other similar debris material within sensitive habitats.
- If visible dust is present during construction activities, standard dust suppression techniques (e.g., water spraying) shall be used in all ground-disturbance areas.
- During construction activities, measures shall be in place to ensure that contaminants are not discharged from construction sites. The SWPPP shall define areas where hazardous materials and trash shall be stored; where vehicles shall be parked, fueled, and serviced; and where construction materials shall be stored.
- Runoff, sedimentation, and erosion shall be minimized through the use of BMPs such as water bars, silt fences, staked straw bales, wattles, and mulching and seeding of all disturbed areas. These measures shall be designed to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water, and to preserve roadways and adjacent properties.
- Equipment storage, fueling, and staging areas shall be located in upland sites away from riparian areas and other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Where vehicle maintenance (excluding fueling) cannot be avoided in areas outside those previously specified, these maintenance activities shall be performed at least 150 feet from all aquatic resources, or as specified by agency permits, on an impermeable bladder or tarp specified for such maintenance activities. Project-related spills of hazardous materials shall be cleaned up immediately, and contaminated soils removed to approved disposal areas.
- Measures such as sandbags, silt screens, cleanup of spills of hazardous materials, and cleanup of sediment shall be implemented to prevent polluted (with sediment or hazardous materials) runoff from work areas in paved streets from entering the storm drain system.
- Measures such as silt screens, cleanup of spills of hazardous materials, cleanup of sediment, secondary containment for hazardous materials, and avoidance of activities that disturb sediment or have a high potential for hazardous materials spills shall be implemented immediately before or during rain to prevent polluted (with sediment or hazardous materials) runoff from staging areas from draining into water ways such as washes, drainages, and ditches, and from entering municipal storm drain systems.

The applicant shall comply with the City of Santee's Stormwater Pollution Prevention Program, the specifics of which can be found on the City of Santee's website. Verification of Construction General Permit coverage approval and the approved SWPPP(s) shall be provided to the City of

Santee at least 30 days prior to start of construction. Updated SWPPPs shall be provided to the City of Santee on request during construction.

MM-BIO-10. Speed Limits During Construction. Vehicle speed limits within the project site shall not exceed 25 miles per hour during project construction.

5.1.2 Jurisdictional Waters and Wetlands

To comply with state and federal regulations protecting waters and wetlands, waterways and wetlands shall be avoided to the maximum extent practicable. For unavoidable impacts on waterways or wetlands, the following permit and agreements may be required.

A Clean Water Act, Section 401/404 permit issued by the California Regional Water Quality Control Board and the U.S. Army Corps of Engineers for all project related disturbances of waters of the U.S. and/or associated wetlands.

A Section 1602 Streambed Alteration Agreement issued by the California Department of Fish and Wildlife for all project related disturbances of any streambed or CDFW jurisdictional riparian habitat.

The proposed project would result in direct permanent loss of 0.289 acres of USACE/RWQCB jurisdictional non-wetland waters and 0.575 acres of permanent impact on USACE/RWQCB jurisdictional non-wetland waters. The project would have no permanent loss of USACE/RWQCB jurisdictional wetlands) (Table 4-7; Figure 11). The proposed project would result in direct temporary impacts on 2.373 acres of USACE/RWQCB non-wetland waters (Table 4-8).

The proposed project would have permanent direct impacts on up to 0.929 acres of CDFW vegetated streambed, and 0.148 acres of CDFW jurisdictional riparian habitat (Table 4-9, Figure 11). The proposed project would have temporary direct impacts on up to 0.758 acres of CDFW jurisdictional vegetated streambed, 2.355 acres of unvegetated streambed, and 0.095 acres of CDFW riparian habitat (Table 4-10). This includes 0.029 acres of temporary impacts at NWW5 around the emergency exit road, which will be revegetated/restored as described in the HMMP. The remainder of the temporary impacts are associated with the temporary dewatering of the pond in San Diego River (North Channel) (NWW1) (Table 4-10).

Prior to the issuance of grading permits, wetland and non-wetland water impacts shall be mitigated by MM-BIO-3 through MM-BIO-11, on potential state and federal wetlands areas to below a level of significance. Ultimately, the jurisdictional waters/wetland mitigation shall proceed in accordance with the permit and certification requirements of described in MM-BIO-11, which would ensure that any additional requirements from the resource agencies are met and would ensure that there would not be a significant adverse effect on state or federal wetlands.

MM-BIO-11. Wetland Permits. Impacts on jurisdictional wetland and waterway resources requires permits and authorizations by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife prior to impacts. The applicant shall provide the City of Santee with permits and authorizations from each resource agency demonstrating approval of project impacts on aquatic resources or shall provide evidence that no such permits are required, prior to the approval of the grading plans. Impacts on sensitive wetland communities shall be mitigated, at a minimum, as described in MM-BIO-3 and MM-BIO-4. The resource agencies could require mitigation ratios higher than those described in MM-BIO-3 and MM-BIO-4, but ratios shall not be less than those described in MM-BIO-3.

5.1.3 Special-Status Species

Potentially significant direct and indirect impacts on habitat occupied by least Bell's vireo (Impact BIO-5) would be minimized through implementation of MM-BIO-3 through MM-BIO-10, and minimized and mitigated through implementation of MM-BIO-14.

Potentially significant direct impacts to the habitat of non-listed special status species (Impact BIO-6) would be minimized and mitigated through implementation of habitat-based mitigation and avoidance in MM-BIO-1 through MM-BIO-8.

Potentially significant direct impacts on nesting birds (Impact BIO-7) and indirect effects of construction noise (Impact BIO-12) and human activity (Impact BIO-13) would be minimized through implementation of MM-BIO-12 and MM-BIO-13. Direct impacts on Crotch's bumble bee (Impact BIO-8) would be significant and minimized through implementation of MM-BIO-15. Direct impacts on western spadefoot (Impact BIO-9) would be significant and minimized through implementation of MM-BIO-16. Direct impacts to western burrowing owl (Impact BIO-10) would be significant and minimized through implementation of MM-BIO-17. Potentially significant impacts on sensitive wildlife from increased abundance of domestic pets (Impact BIO-14) would be minimized through implementation of MM-BIO-18.

Implementation of these measures would result in a less than significant impact with mitigation incorporated under CEQA.

MM-BIO-12. Minimize Indirect Noise Impacts on Non-Listed Riparian Birds and Raptors.

The operation of construction equipment (e.g., backhoes, loaders, bulldozers, excavators, skid steers, graders) and construction activities (building construction) shall not occur within a "noise impact area" (as defined below) during the breeding seasons for yellow warbler, yellow-breasted chat, and vermilion flycatcher (February 15 through August 31), or nesting raptors (January 15 through July 15). If it is not feasible to avoid operation of construction equipment during any of these breeding seasons, then a pre-construction nesting survey shall be conducted within potential habitat of any of these species within 150 or 300 feet of proposed construction equipment activity. Pre-construction surveys shall be conducted by a qualified biologist no more than 72 hours prior to the start of construction to determine if active nests of these species are present within the areas potentially impacted by noise. The qualified biologist conducting the survey(s) shall have, at a minimum, a bachelor's degree in biology, ecology, zoology, or a related field of science, and at least 2 years of experience conducting biological field surveys, including surveys for nesting birds.

The "noise impact area" is defined as up to 300 feet from the noise source to the nest for raptors and up to 150 feet from the noise source to the nest for the cormorant rookery and for other sensitive riparian species, including yellow warbler, yellow-breasted chat, and vermilion flycatcher. If it is determined at the completion of pre-construction surveys that active nests belonging to yellow warbler, yellow-breasted chat, vermilion flycatcher, or raptors are absent from the noise impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to any of these sensitive species, then construction shall (1) be postponed within the noise impact area until a qualified biologist determines any nests are no longer active or until after the respective breeding season; (2) be conditionally allowed within portions of the noise impact area if intensive monitoring by the qualified biologist determines that nesting activities are not being substantially (i.e., adults appearing agitated, scolding more, attracting the attention of brown-headed cowbirds, or

leaving the nest site more than average) disrupted by adjacent construction activity; or (3) not occur until a temporary noise barrier or berm is constructed at the edge of the construction limits and/or around the piece of equipment to ensure that noise levels within the noise impact area are reduced to below 1-hour average of 60 A-weighted decibels (dBA) leq or ambient noise levels, whichever is greater, at the nest location. Decibel output shall be confirmed by a qualified noise specialist, and intermittent monitoring by a qualified biologist shall be required to ensure that conditions have not changed. If a temporary noise barrier or berm is constructed, the qualified biologist must be present to ensure that construction of the noise attenuation feature does not itself result disruption of nesting behavior. Factors used to determine and guide the appropriate buffer distance shall include individual pair behavior responses, amount of buffering topography or structures, proximity to existing disturbance, and ambient noise levels.

MM-BIO-13. Avoid Disturbance of Vegetation During Bird Nesting Season. To comply with state and federal protections on nesting birds, clearing, trimming, and grubbing of vegetation shall occur September 1 through February 14 (i.e., outside of the general bird breeding season), and tree removal shall occur July 16 through January 14 (outside of the raptor breeding season). If tree or vegetation trimming, clearing, or grubbing cannot feasibly occur outside of these breeding seasons, then pre-construction nesting surveys, as described below, shall be conducted by a qualified biologist prior to initiating vegetation trimming, clearing, or grubbing activities.

The nesting survey for native birds protected under the Migratory Bird Treaty Act and Fish and Game Code shall consist of one pre-construction nesting survey conducted no more than 72 hours prior to the commencement of vegetation trimming, clearing, or grubbing to determine if active nests of these species are present in the affected areas. If pre-construction surveys determine the presence of active nests, then construction shall (1) be postponed within the noise impact area until a qualified biologist determines any nests are no longer active or until after the respective breeding season; (2) be conditionally allowed within portions of the noise impact area if intensive monitoring by the qualified biologist determines that nesting activities are not being substantially (i.e., adults appearing agitated, scolding more, attracting the attention of brown-headed cowbirds, or leaving the nest site more than average) disrupted by adjacent construction activity; or (3) not occur until a temporary noise barrier or berm is constructed at the edge of the construction limits and/or around the piece of equipment to ensure that noise levels within the noise impact area are reduced to below 1-hour average of 60 A-weighted decibels (dBA) leq or ambient noise levels, whichever is greater, at the nest location. Decibel output shall be confirmed by a qualified noise specialist, and intermittent monitoring by a qualified biologist shall be required to ensure that conditions have not changed. If a temporary noise barrier or berm is constructed, the qualified biologist must be present to ensure that construction of the noise attenuation feature does not itself result disruption of nesting behavior. Factors used to determine and guide the appropriate buffer distance shall include individual pair behavior responses, amount of buffering topography or structures, proximity to existing disturbance, and ambient noise levels.

The qualified biologist shall determine the appropriate nest avoidance distance based on species type, habitat location and condition, and behavior of the nesting pair. The qualified biologist conducting the survey(s) shall have, at a minimum, a bachelor's degree in biology, ecology, zoology, or a related field of science, and at least 2 years of experience conducting biological field surveys, including surveys for nesting birds.

MM-BIO-14. Mitigation, Monitoring, and Reporting Conditions for Potential Impacts to Occupied Least Bell's Vireo Habitat. Prior to the issuance of grading permits, the Cities of Santee and San Diego shall verify that the following project requirements regarding least Bell's vireo are shown on the construction plans. No clearing, grubbing, grading, or other construction activities shall occur during the least Bell's vireo breeding season (March 15 through September 15) until the following requirements have been met to the satisfaction of the applicable jurisdiction issuing the grading permit:

- A. A qualified biologist shall perform a clearance survey in those wetland areas suitable for the presence of least Bell's vireo. Surveys for the species shall be conducted within the current breeding season, if applicable, and include at least 3 weekly surveys and monthly follow-up surveys. If least Bell's vireo is present, then the following conditions must be met:
 1. Occupied habitat shall be staked or fenced under the supervision of a qualified biologist; and
 2. From March 15 through September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 A-weighted decibels (dBA) leq hourly average (or to the ambient noise level if greater) at the edge of occupied least Bell's vireo habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average (or to the ambient noise level if greater) at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City of San Diego City Manager or the City of Santee City Planner (depending on applicable jurisdiction) at least 2 weeks prior to the commencement of construction activities in the affected area. Prior to the commencement of any of construction activities during the breeding season, areas restricted from such activities (avoidance buffers) shall be staked or fenced under the supervision of a qualified biologist. This noise analysis may include noise attenuation requirements, including altering grading operations, phasing grading, cessation of vehicle idling, and using quieter machinery near sensitive resources, to obtain the necessary noise levels; or
 3. At least 2 weeks prior to the commencement of construction activities in the affected area, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA leq hourly average (or the ambient noise level if greater) at the edge of habitat occupied by least Bell's vireo. If a temporary noise barrier or berm is constructed, the qualified biologist must be present to ensure that the construction of the noise attenuation feature does not itself result in disruption of nesting behavior. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring (as described below) shall be conducted at the edge of the occupied habitat to ensure that noise levels do not exceed 60 dBA leq hourly average (or ambient noise levels if greater). If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, or the nesting activities are being substantially disrupted by adjacent construction activity, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

4. Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA leq hourly average or to the ambient noise level if greater. If not, other measures shall be implemented in consultation with the biologist, the City of San Diego City Manager, or the City of Santee City Planner (depending on the applicable jurisdiction), as necessary, to reduce noise levels to below 60 dBA leq hourly average or to the ambient noise level if greater. Such measures may include limitations on the placement of construction equipment and the simultaneous use of equipment.

MM-BIO-15. Crotch's Bumble Bee Pre-Construction Surveys. Prior to any ground disturbance activity during the Colony Active Period (April 1 through August 31), then pre-construction surveys for active bee nest colonies shall be required no more than 5 days prior to any ground disturbance or vegetation removal. The following method for nest surveys shall be used unless the Wildlife Agencies provide an updated method based on current understanding of bumble bee nests in the future:

- Within non-developed habitats (golf course areas are considered to be developed), the biologist shall look for nest resources (e.g., burrows) suitable for bumble bee use. If an area of bumble bee activity is detected, the biologist shall watch potential nest resources for a period of time (up to 30 minutes if early in the Colony Active Period, and up to 10 minutes during the peak of the Colony Active Period) looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, although the rate can vary depending on whether it is early/late or at the peak of the Colony Active Period. If a bumble bee worker is detected, then a representative bee shall be identified to species. This should be possible without capture in San Diego County. Biologists shall ensure that 100% visual coverage of all potential burrow resources are surveyed. Therefore, the biologist shall select a view that balances viewing multiple burrows while ensuring detection if bees are present. It is up to the discretion of the biologist regarding the actual survey viewshed limits from the chosen vantage point, but this limit shall not exceed 50 feet. The biologist shall reduce the 50-foot limit as necessary to ensure 100% visual coverage of potential burrow resources depending on topography, vegetation height and cover, and other factors. This approach shall allow the biologist to assess multiple burrows at one time to sufficiently determine if bees are entering/exiting them. If a nest is suspected, the surveyor can block the entrance of the possible nest with a sterile vial or jar until nest activity is confirmed (no longer than 30 minutes). A photo voucher of the bee species shall be collected, and the location mapped using GPS. If identification is not feasible without capture, then the project proponent shall consult with the California Department of Fish and Wildlife prior to allowing the biologist to capture and identify to species (using the protocol for the California Bumble Bee Atlas project managed by the Xerces Society) to determine if a California Endangered Species Act Memorandum of Understanding and/or Scientific Collecting Permit would be required.
- A written survey report shall be submitted to the City of Santee and City of San Diego within 30 days of the pre-construction nest surveys. The report shall include survey methods, weather conditions, and survey results, including botanical results, a list of insect species observed, and a figure showing the locations of any Crotch's bumble bee nest sites or individuals observed (as appropriate for the level of survey required). The survey report shall include the qualifications of the surveyor(s) and approved biologist(s) for

identification of photo vouchers and a detailed habitat assessment. If Crotch's bumble bee nests are observed, location information shall be submitted to the California Natural Diversity Database at the time of, or prior to, submittal of the survey report.

- If a Crotch's bumble bee nest is detected, the project biologist shall establish, monitor, and maintain a no-work buffer around the nest. The size and configuration of the no-work buffer shall be based on best professional judgement of the project biologist in consultation with the Wildlife Agencies. The buffer shall provide at least 50 feet of clearance around nest entrance(s). Construction activities shall not occur within the no-work buffer until the colony is no longer active. To determine that a nest is no longer active, the nest shall be observed for a minimum of 60 minutes each day across a minimum of 3 days during suitable flight weather (i.e., ambient air temperature between 60°F and 90°F, winds under 10 miles per hour, and no precipitation higher than a drizzling rain). If no bees are seen flying in or out of the nest by the end of the observation period, it shall be determined that the nest is no longer active. If project activities occur outside of the Colony Active Period, then pre-construction surveys for active bee nest colonies and avoidance measures are not required.

MM-BIO-16. Western Spadefoot Pre-Construction Survey. During the rainy season (typically begins with the first rains in October) prior to the issuance of the grading permit, the project must either perform an egg mass/larval survey for western spadefoot within standing water in the biological study area (BSA) or perform nocturnal eyeshine surveys for adults across the BSA. If performed, egg mass/larval surveys must be performed in March and/or April. If performed, nocturnal adult surveys must be performed during or the night after the first three large (0.25-inch or greater) rain events of the winter. If the standing water or nocturnal survey is negative, then no additional measures are required. If the surveys find western spadefoot, then a 1,500-foot buffer shall be applied, originating from the breeding resource. The buffer area between the BSA open space limit and farthest project impact limit shall be enclosed by exclusion fencing. That interior area shall be surveyed during the first three rain events, and western spadefoot shall be relocated outside of the buffer area within the BSA. A relocation plan shall be prepared that identifies the specific methods and relocation areas, shall be prepared prior to implementation, and shall be approved by the lead agency. Any permits required to perform this task shall be acquired.

This measure is not required north of the San Diego River (north) because that section of the San Diego River does not provide suitable habitat for western spadefoot and would provide a suitable buffer if spadefoot were found south of there.

MM-BIO-17. Western Burrowing Owl Pre-Construction Survey. Prior to grading activities, the project shall determine if suitable burrowing owl nesting and overwintering habitat occurs within the project site based on a current habitat assessment. If suitable burrows are identified (e.g., greater than 11 centimeters in diameter and greater than 150 centimeters in depth), then the following shall be implemented:

- If suitable burrowing owl habitat is present, pre-construction burrowing owl surveys shall be conducted consistent with the 2012 California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation. No more than 14 days prior to the initiation of project activities, a qualified biologist shall conduct at least two surveys at least 7 days apart, with the final survey conducted no more than 48 hours prior to the initiation of project activities. A report of the survey results, including mapping of any occupied burrows (including natural or constructed), burrowing owls, or burrowing owl sign observed, shall

be submitted to the Cities of Santee and San Diego for their review and approval prior to initiation of project activities. Pre-construction surveys are not seasonally dependent and shall be required whenever ground disturbance is planned to address potential impacts during both overwintering and nesting seasons. If the survey is negative, then nothing more is required. If an occupied burrow or burrowing owl is found, then the following measures shall be implemented:

- Depending on the jurisdiction (City of Santee/City of San Diego) and their respective Multiple Species Conservation Program requirements at the time, either those requirements shall be implemented, or a CDFW 2081 Incidental Take Permit shall be secured and the following shall be implemented unless superseded by the Multiple Species Conservation Program or Incidental Take Permit:
 - Project activities shall be restricted within occupied burrowing owl habitat (inclusive of the appropriate buffer) during the breeding season (February 1 through August 31) until nesting is complete (i.e., the young have dispersed and are fledged, independently foraging, and no longer using the burrows or burrow complex, and/or adults are no longer nesting).
 - During the breeding season, buffers shall be established by a qualified biologist consistent with guidance provided in the 2012 CDFW Staff Report on Burrowing Owl Mitigation. Appropriate buffer size shall depend on the time of year, level of disturbance, and project-specific site conditions. Buffers around active nesting sites shall be a minimum of 200 meters (656 feet) regardless of the time of year. The monitoring biologist shall have the authority to order stop work if burrowing owls exhibit distress or abnormal behavior and shall consult with the appropriate entities to determine next steps (e.g., stop work or increase buffers).
- Where impacts to burrowing owl are unavoidable, the following measures shall be required:
 - If suitable but un-occupied burrows cannot be avoided, burrow exclusion may be appropriate. Burrow exclusion shall only be allowed after the burrow has been determined by a qualified biologist to be inactive. No exclusions shall be permitted during the nesting season when there is evidence of burrowing owl activity. Prior to the initiation of any burrow exclusions, a Burrow Exclusion Plan shall be submitted to the Cities of Santee and San Diego and CDFW for review and approval.
 - Mitigation for impacts to occupied habitat shall occur through the conservation of occupied burrowing owl habitat at a ratio of no less than 1:1 for the territory of the burrowing owl. If occupied burrowing owl habitat is not available for mitigation within the Santee Subarea Plan Area, lands with potential to be occupied through appropriate restoration, management, and enhancement of burrowing owl nesting and foraging requirements may be considered. The land to be conserved shall be approved by the Cities of Santee and San Diego and CDFW. The land to be conserved shall be secured by a legal instrument (e.g., conservation easement) to the satisfaction of CDFW.

MM-BIO-18. Homeowner Education Program. Prior to the issuance of a building permit for the residential homes on the project site, a homeowner education program shall be prepared by a qualified biologist for approval by City of Santee and distributed by the applicant to inform homeowners of the need to keep pets outside of the adjacent open space areas.

5.1.4 Preserve Land Use Adjacency Guidelines

5.1.4.1 City of Santee

Although the draft Santee MSCP subarea plan has not been approved, this project will conform to the Preserve Land Use Adjacency Guidelines developed in the draft plan to ensure that there are no conflicts with establishment of the subarea plan. The proposed project would introduce residential development as an accessory use to the Residential West area near West Hills Parkway that is adjacent to open space in the City of Santee. The proposed project would introduce the emergency access road and parking lot associated with the golf resort adjacent to the Mast West habitat preserve in Santee, in an area that is currently a golf course. The proposed project would conform and be consistent with the following guidelines:

Drainage. The new development areas have been designed to drain into on-site water detention basins and not flow directly into the habitat preserves.

Fuel modification zones. Santee Municipal Code Chapter 49 Section 4905.2 requires that all new development within the Wildland Urban Interface Area has fuel modified defensible space. A fire protection plan has been prepared to address impacts from Wildland Urban Interface. Potential impacts from fuel modification zones have been incorporated into the impact footprint of the project.

Noise generated during construction of the proposed project could affect nesting birds if construction occurs during the avian breeding season. MM-BIO-12 provides a measure to minimize noise impacts on nesting birds in adjacent habitat.

Project lighting will be shielded and directed away from the San Diego River to avoid spillover into the adjacent riparian habitat. Low-pressure sodium lighting shall be used whenever possible and incorporated into project design features and engineering site plan. The City of Santee will provide project oversight to ensure that the project lighting is consistent with Preserve Land Use Adjacency Guidelines.

Invasive species shall not be introduced into areas immediately adjacent to the preserve areas. All open space slopes immediately adjacent to the preserve should be planted with native species that reflect the adjacent native habitat. Invasive species will not be introduced from the project into the adjacent preserve lands. The City of Santee will approve the project's landscaping plans to ensure that the applicable parts of the landscaping plant palette are consistent with Preserve Land Use Adjacency Guidelines. Conformance with the City of Santee Land Use Adjacency Guidelines listed above shall be made a condition of project approval and shall be included in applicable Covenants, Conditions, and Restrictions. Implementation of MM-BIO-12 would avoid or substantially lessen indirect impacts on nesting birds due to construction to below a level of significance. With implementation of these mitigation measures and conformance with the MSCP Land Use Adjacency Guidelines, the project would not conflict with local policies (i.e., the MSCP) and would not result in a potentially significant impact.

5.1.4.2 City of San Diego

The project would redesign the existing active recreation use (existing golf course) within and adjacent to the City of San Diego Multi-Habitat Preserve Area (MHPA). The existing golf course contains approximately 14 acres of land designated as MHPA and is adjacent to MHPA along the southern boundary of the site, within the City of San Diego. The MSCP San Diego Subarea Plan includes land use adjacency guidelines to address on a project-by-project basis to minimize impacts and maintain function of the MHPA (City of San Diego 1997). The City of San Diego MSCP Land Use Adjacency Guidelines include the following topics: drainage, toxics, lighting, noise, barriers, invasives, brush management, and grading/land development (See Section 1.5.3). The following list describes how these guidelines relate to the portions of the proposed project within the City of San Diego.

Drainage/Toxics. No parking lots or developed areas are proposed in or adjacent to the MHPA. Developed areas within the project site are designed to drain to water quality detention basins.

Lighting. No lighting is proposed in the golf course in or adjacent to the MHPA.

Noise/Barriers. No land use changes are proposed in or adjacent to the MHPA. There will be a continuation of golf course uses along the southern boundary of the site. No changes in operational noise are expected as a result of the operation of the golf course. Golf course uses will continue along the southern boundary similar to present uses on the site.

Construction activities adjacent to the MHPA could result in temporary increases in noise. Implementation of MM-BIO-12 would avoid or substantially lessen indirect impacts on nesting birds due to construction noise, to below a level of significance.

Brush Management. The existing and redesigned golf course does not require any brush management zones within or adjacent to the MHPA.

Grading/land development. No slopes are proposed within or adjacent to the City of San Diego MHPA. All project grading will be contained within the project site.

Invasive species shall not be introduced into areas immediately adjacent to the preserve areas. All open space slopes immediately adjacent to the preserve should be planted with native species that reflect the adjacent native habitat.

Conformance with the City of San Diego Land Use Adjacency Guidelines listed above shall be made a condition of project approval and shall be included in applicable Covenants, Permit Conditions, and Restrictions. With implementation of these mitigation measures and conformance with the MSCP Land Use Adjacency Guidelines, the project would not conflict with local policies (i.e., the MSCP) and would not result in a potentially significant impact.

5.2 Protection and Notice Element

Any on- or off-site mitigation will be protected with either a Conservation Easement to the CDFW or other entity approved by CDFW, or dedication in fee title to the City of Santee. The easement would be recorded prior to the approval of any plan, issuance of any permit, and prior to occupancy or use of the premises in reliance of a permit. Credits purchased through a CDFW-approved mitigation bank would be considered adequately protected.

5.3 Management Element

Mitigation can only be successful if there are assurances that on- or off-site mitigation will be adequately managed and monitored. Credits purchased through a CDFW-approved mitigation bank would be considered adequately managed. Applicant proposes on site wetland and riparian restoration and has included a conceptual Habitat Mitigation and Monitoring Plan (Appendix K), to serve as a basis for the final Habitat Mitigation and Monitoring Plan, which would also be required in wetland permitting. Prior to the issuance of grading permits, City of Santee would need to approve the managing entity, the endowment funds determination (Property Analysis Record or equivalent), and the manager of endowment funds to ensure adequate funding for the long-term management and monitoring of the site (MM-BIO-6). Prior to issuance of grading permits, documentation would be provided to the City of Santee that the endowment had been funded for management in perpetuity.

Chapter 6

Acknowledgements and Bibliography

6.1 Acknowledgements

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City of San Diego Reviewers: Kristi Forburger, City Planning, Biodiverse SD

Courtney Holowach, LDR-Environmental

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Appendix A

Representative Site Photographs

Appendix A – Representative Photographs



Photograph 1 Golf Course area proposed for residential development (foreground).



Photograph 2 Golf Course pond within Sycamore Creek. Proposing to temporarily drain this feature to enable work on the dam and construction of a bridge.



Photograph 3 Disturbed coastal sage scrub along West Hills Pkwy determined not to have California gnatcatcher in 2019.

Appendix A – Representative Photographs



Photograph 4 Representative riparian forest along southern boundary. Representative of areas survey for presence/absence of least Bell's vireo and southwestern willow flycatcher.



Photograph 5 Representative riparian forest along southern boundary. Representative of areas survey for presence/absence of least Bell's vireo and southwestern willow flycatcher.



Photograph 6 Riparian forest on northeastern boundary would generally be avoided. One crossing would be installed to provide emergency access to project site.

Appendix A – Representative Photographs



Photograph 7 Riparian forest within the project site City of San Diego, occupied by least Bell's vireo in 2019, would be avoided.



Photograph 8 Eucalyptus containing cormorant rookery would be avoided during golf course redesign/remodeling.

Appendix B

Plant Species Observed

Appendix B Plant Species Observed

| Scientific Name | Common Name | Special Status |
|---|-------------------------|----------------|
| GYMNOSPERMS | | |
| Pinaceae - Pine family | | |
| <i>Pinus pinea</i> | Italian stone pine | |
| MAGNOLIIDS | | |
| Saururaceae - Lizard's-tail family | | |
| <i>Anemopsis californica</i> | Yerba mansa | |
| EUDICOTS | | |
| Adoxaceae - Muskroot family | | |
| <i>Sambucus nigra ssp. caerulea</i> | Blue elderberry | |
| Aizoaceae - Fig-marigold family | | |
| * <i>Carpobrotus edulis</i> | Hottentot fig | |
| * <i>Mesembryanthemum nodiflorum</i> | Slender-leaved iceplant | |
| Amaranthaceae - Amaranth family | | |
| * <i>Amaranthus albus</i> | White tumbleweed | |
| Anacardiaceae - Sumac Or Cashew family | | |
| <i>Rhus integrifolia</i> | Lemonade berry | |
| * <i>Schinus molle</i> | Peruvian pepper tree | |
| * <i>Schinus terebinthifolius</i> | Brazilian pepper tree | |
| <i>Toxicodendron diversilobum</i> | Western poison oak | |
| Apiaceae - Carrot family | | |
| * <i>Apium graveolens</i> | Celery | |
| * <i>Conium maculatum</i> | Poison hemlock | |
| * <i>Foeniculum vulgare</i> | Fennel | |
| Apocynaceae - Dogbane family | | |
| * <i>Nerium oleander</i> | Oleander | |
| Asteraceae - Sunflower family | | |
| <i>Ambrosia psilostachya</i> | Western ragweed | |
| <i>Artemisia californica</i> | California sagebrush | |
| <i>Artemisia douglasiana</i> | Mugwort | |
| <i>Artemisia palmeri</i> | Palmer's sagewort | CRPR 4.2 |
| <i>Baccharis pilularis ssp. pilularis</i> | Coyote brush | |
| <i>Baccharis salicifolia ssp. salicifolia</i> | Mule fat | |
| <i>Baccharis sarothroides</i> | Broom baccharis | |
| * <i>Carduus pycnocephalus ssp. pycnocephalus</i> | Italian thistle | |

| Scientific Name | Common Name | Special Status |
|---|----------------------------|----------------|
| * <i>Centaurea melitensis</i> | Tocalote | |
| * <i>Cirsium vulgare</i> | Bull thistle | |
| * <i>Cotula coronopifolia</i> | Brass-buttons | |
| * <i>Dimorphotheca ecklonis</i> | Blue & white Cape marigold | |
| <i>Encelia californica</i> | California encelia | |
| * <i>Erigeron bonariensis</i> | Flax-leaved horseweed | |
| <i>Erigeron canadensis</i> | Horseweed | |
| * <i>Helminthotheca echioides</i> | Bristly ox-tongue | |
| <i>Heterotheca grandiflora</i> | Telegraph weed | |
| <i>Iva hayesiana</i> | San Diego marsh-elder | CRPR 2B.2 |
| * <i>Lactuca serriola</i> | Prickly lettuce | |
| <i>Laennecia coulteri</i> | Coulter's horseweed | |
| <i>Pectis papposa</i> var. <i>papposa</i> | Chinch-weed | |
| * <i>Sonchus asper</i> ssp. <i>asper</i> | Prickly sow thistle | |
| * <i>Sonchus oleraceus</i> | Common sow thistle | |
| <i>Xanthium strumarium</i> | Cocklebur | |
| Boraginaceae - Borage family | | |
| <i>Heliotropium curassavicum</i> var. <i>oculatum</i> | Alkali heliotrope | |
| Brassicaceae - Mustard family | | |
| * <i>Brassica nigra</i> | Black mustard | |
| * <i>Hirschfeldia incana</i> | Shortpod mustard | |
| * <i>Lepidium latifolium</i> | Perennial pepper-grass | |
| * <i>Raphanus sativus</i> | Radish | |
| <i>Rorippa palustris</i> | Bog yellow cress | |
| * <i>Sisymbrium altissimum</i> | Tumble mustard | |
| * <i>Sisymbrium orientale</i> | Indian hedgemustard | |
| Cactaceae - Cactus family | | |
| * <i>Opuntia ficus-indica</i> | Mission prickly pear | |
| <i>Opuntia oricola</i> | Chaparral prickly pear | |
| Caprifoliaceae - Honeysuckle family | | |
| * <i>Lonicera japonica</i> | Japanese honeysuckle | |
| Caryophyllaceae - Pink family | | |
| * <i>Spergularia bocconi</i> | Boccone's sand-spurrey | |
| * <i>Spergularia rubra</i> | Red sand-spurrey | |

| Scientific Name | Common Name | Special Status |
|--|----------------------------------|----------------|
| Chenopodiaceae - Goosefoot family | | |
| * <i>Chenopodium album</i> | Lamb's quarters | |
| * <i>Chenopodium murale</i> | Nettleleaf goosefoot | |
| * <i>Salsola tragus</i> | Russian thistle | |
| Convolvulaceae - Morning-glory family | | |
| <i>Cressa truxillensis</i> | Alkali weed | |
| Cucurbitaceae - Gourd family | | |
| <i>Cucurbita foetidissima</i> | Calabazilla | |
| Euphorbiaceae - Spurge family | | |
| <i>Croton californicus</i> | California croton | |
| * <i>Euphorbia maculata</i> | Spotted spurge | |
| * <i>Euphorbia peplus</i> | Petty spurge | |
| * <i>Ricinus communis</i> | Castorbean | |
| Fabaceae - Legume family | | |
| * <i>Acacia cyclops</i> | Western coastal wattle | |
| <i>Acmispon americanus var. americanus</i> | Spanish-Clover | |
| * <i>Melilotus albus</i> | White sweetclover | |
| * <i>Melilotus indicus</i> | Indian sweetclover | |
| Fagaceae - Oak family | | |
| <i>Quercus agrifolia</i> | Coast live oak | |
| Juglandaceae - Walnut family | | |
| * <i>Carya illinoensis</i> | Pecan | |
| <i>Juglans californica</i> | Southern California black walnut | CRPR 4.2 |
| Lamiaceae - Mint family | | |
| * <i>Lamium amplexicaule</i> | Henbit | |
| * <i>Marrubium vulgare</i> | Horehound | |
| Malvaceae - Mallow family | | |
| <i>Malacothamnus fasciculatus</i> | Chaparral bush-mallow | |
| <i>Malvella leprosa</i> | Alkali mallow | |
| Moraceae - Mulberry family | | |
| * <i>Ficus carica</i> | Edible fig | |
| * <i>Morus alba</i> | White mulberry | |
| Myrtaceae - Myrtle family | | |
| * <i>Eucalyptus cladocalyx</i> | Sugar gum | |
| * <i>Eucalyptus globulus</i> | Blue gum | |
| * <i>Eucalyptus sideroxylon</i> | Red River gum | |

| Scientific Name | Common Name | Special Status |
|--|----------------------------|----------------|
| * <i>Eucalyptus sp.</i> | Gum | |
| Nyctaginaceae - Four O'clock family | | |
| <i>Bougainvillea sp.</i> | Bougainvillea | |
| Oleaceae - Olive family | | |
| * <i>Fraxinus udehi</i> | Shamel Ash | |
| * <i>Olea europaea</i> | Olive | |
| Onagraceae - Evening Primrose family | | |
| <i>Camissoniopsis sp.</i> | Suncup | |
| <i>Epilobium ciliatum</i> | Fringed willowherb | |
| * <i>Ludwigia peploides</i> | Floating water primrose | |
| <i>Oenothera elata ssp. hookeri</i> | Hooker's evening primrose | |
| * <i>Oenothera speciosa</i> | Beautiful evening primrose | |
| Phrymaceae - Lopseed family | | |
| <i>Mimulus guttatus</i> | Seep monkeyflower | |
| Plantaginaceae - Plantain family | | |
| * <i>Plantago major</i> | Common plantain | |
| Platanaceae - Plane Tree, Sycamore family | | |
| <i>Platanus racemosa</i> | Western sycamore | |
| Polygonaceae - Buckwheat family | | |
| <i>Eriogonum fasciculatum</i> | California buckwheat | |
| <i>Persicaria amphibia</i> | Water smartweed | |
| * <i>Polygonum aviculare</i> | Oval Leaf knotweed | |
| * <i>Rumex crispus</i> | Curly dock | |
| Rosaceae - Rose family | | |
| <i>Heteromeles arbutifolia</i> | Toyon | |
| <i>Rosa californica</i> | California rose | |
| <i>Rubus ursinus</i> | California blackberry | |
| Rubiaceae - Madder family | | |
| <i>Galium aparine</i> | Common bedstraw | |
| Salicaceae - Willow family | | |
| <i>Populus fremontii ssp. fremontii</i> | Fremont cottonwood | |
| <i>Salix exigua var. hindsiana</i> | Sand bar willow | |
| <i>Salix gooddingii</i> | Goodding's black willow | |
| <i>Salix laevigata</i> | Red willow | |
| <i>Salix lasiolepis</i> | Arroyo willow | |

| Scientific Name | Common Name | Special Status |
|--|-------------------------|----------------|
| Sapindaceae - Soapberry family | | |
| <i>Acer negundo</i> | Box elder | |
| Simaroubaceae - Quassia Or Simarouba family | | |
| * <i>Ailanthus altissima</i> | Tree of heaven | |
| Solanaceae - Nightshade family | | |
| <i>Datura wrightii</i> | Wright's jimsonweed | |
| * <i>Nicotiana glauca</i> | Tree tobacco | |
| Tamaricaceae - Tamarisk family | | |
| * <i>Tamarix ramosissima</i> | Tamarix | |
| Tropaeolaceae - Nasturtium family | | |
| * <i>Tropaeolum majus</i> | Garden nasturtium | |
| Verbenaceae - Vervain family | | |
| <i>Phyla nodiflora</i> | Turkey tangle frogfruit | |
| Vitaceae - Grape family | | |
| <i>Vitis girdiana</i> | Desert wild grape | |
| MONOCOTS | | |
| Agavaceae - Century Plant family | | |
| * <i>Agave americana</i> | American century plant | |
| * <i>Yucca gloriosa</i> | Garden yucca | |
| Arecaceae - Palm family | | |
| * <i>Phoenix canariensis</i> | Canary Island palm | |
| * <i>Washingtonia robusta</i> | Mexican fan palm | |
| Cyperaceae - Sedge family | | |
| <i>Carex praegracilis</i> | Slender sedge | |
| <i>Cyperus eragrostis</i> | Tall flatsedge | |
| <i>Schoenoplectus americanus</i> | American bulrush | |
| <i>Schoenoplectus californicus</i> | California bulrush | |
| Juncaceae - Rush family | | |
| <i>Juncus acutus ssp. leopoldii</i> | Southwestern spiny rush | CRPR 4.2 |
| <i>Juncus mexicanus</i> | Mexican rush | |
| Poaceae - Grass family | | |
| * <i>Arundo donax</i> | Giant reed | |
| * <i>Avena barbata</i> | Slender wild oat | |
| * <i>Avena fatua</i> | Wild oat | |
| <i>Bromus carinatus</i> | California brome | |
| * <i>Bromus diandrus</i> | Ripgut brome | |

| Scientific Name | Common Name | Special Status |
|---------------------------------------|-------------------------|----------------|
| * <i>Bromus hordeaceus</i> | Soft brome | |
| * <i>Bromus rubens</i> | Red brome | |
| * <i>Cortaderia sp.</i> | Pampas grass | |
| * <i>Cynodon dactylon</i> | Bermuda grass | |
| * <i>Festuca myuros</i> | Rattail fescue | |
| * <i>Festuca perennis</i> | Rye grass | |
| * <i>Hordeum murinum ssp. glaucum</i> | Smooth barley | |
| * <i>Lamarckia aurea</i> | Goldentop grass | |
| * <i>Paspalum dilatatum</i> | Dallis grass | |
| * <i>Pennisetum setaceum</i> | African fountain grass | |
| * <i>Polypogon monspeliensis</i> | Rabbitsfoot beard grass | |
| * <i>Stipa miliacea var. miliacea</i> | Smilo grass | |
| Typhaceae - Cattail family | | |
| <i>Typha latifolia</i> | Broad-leaved cattail | |

Legend

*= Non-native or invasive species

Special Status:

CRPR – California Rare Plant Rank

2B. Rare or Endangered in California, more common elsewhere

4. Plants of limited distribution - Watch list

Threat Ranks

.1 - Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

Appendix C
Animal Species Observed or Detected

Appendix C. Animal Species Observed or Detected

| Scientific Name | Common Name | Special Status |
|-----------------------------------|------------------------------|----------------|
| VERTEBRATES | | |
| Fish | | |
| <i>*Lepomis macrochirus</i> | Bluegill | |
| Amphibians | | |
| <i>*Lithobates catesbeianus</i> | American Bullfrog | |
| <i>Pseudacris hypochondriaca</i> | Baja California Treefrog | |
| Reptiles | | |
| <i>Sceloporus occidentalis</i> | Western Fence Lizard | |
| <i>Uta stansburiana elegans</i> | Western Side-blotched Lizard | |
| Turtles | | |
| <i>*Trachemys scripta elegans</i> | Red-eared Slider | |
| Birds | | |
| <i>Anas platyrhynchos</i> | Mallard | |
| <i>Podilymbus podiceps</i> | Pied-billed Grebe | |
| <i>Phalacrocorax auritus</i> | Double-crested Cormorant | WL |
| <i>Ardea herodias</i> | Great Blue Heron | |
| <i>Egretta thula</i> | Snowy Egret | |
| <i>Butorides virescens</i> | Green Heron | |
| <i>Nycticorax nycticorax</i> | Black-crowned Night-Heron | |
| <i>Accipiter cooperii</i> | Cooper's Hawk | WL, MSCP |
| <i>Buteo lineatus</i> | Red-shouldered Hawk | |
| <i>Buteo jamaicensis</i> | Red-tailed Hawk | |
| <i>Fulica americana</i> | American Coot | |
| <i>*Columba livia</i> | Rock Pigeon | |
| <i>*Streptopelia decaocto</i> | Eurasian Collared-Dove | |
| <i>Zenaida macroura</i> | Mourning Dove | |
| <i>Aeronautes saxatalis</i> | White-throated Swift | |
| <i>Archilochus alexandri</i> | Black-chinned Hummingbird | |
| <i>Calypte anna</i> | Anna's Hummingbird | |
| <i>Selasphorus sp.</i> | Selasphorus hummingbird | |
| <i>Melanerpes formicivorus</i> | Acorn Woodpecker | |
| <i>Picoides nuttallii</i> | Nuttall's Woodpecker | |
| <i>Picoides pubescens</i> | Downy Woodpecker | |

| Scientific Name | Common Name | Special Status |
|-----------------------------------|-------------------------------|----------------|
| <i>*Amazona viridigenalis</i> | Red-crowned Parrot | |
| <i>Empidonax difficilis</i> | Pacific-slope Flycatcher | |
| <i>Sayornis nigricans</i> | Black Phoebe | |
| <i>Sayornis saya</i> | Say's Phoebe | |
| <i>Myiarchus cinerascens</i> | Ash-throated Flycatcher | |
| <i>Tyrannus vociferans</i> | Cassin's Kingbird | |
| <i>Tyrannus verticalis</i> | Western Kingbird | |
| <i>Vireo bellii pusillus</i> | Least Bell's Vireo | FE, SE, MSCP |
| <i>Vireo huttoni</i> | Hutton's Vireo | |
| <i>Aphelocoma californica</i> | California Scrub-Jay | |
| <i>Corvus brachyrhynchos</i> | American Crow | |
| <i>Corvus corax</i> | Common Raven | |
| <i>Tachycineta bicolor</i> | Tree Swallow | |
| <i>Stelgidopteryx serripennis</i> | Northern Rough-winged Swallow | |
| <i>Petrochelidon pyrrhonota</i> | Cliff Swallow | |
| <i>Psaltiriparus minimus</i> | Bushtit | |
| <i>Sitta carolinensis</i> | White-breasted Nuthatch | |
| <i>Troglodytes aedon</i> | House Wren | |
| <i>Thryomanes bewickii</i> | Bewick's Wren | |
| <i>Chamaea fasciata</i> | Wrentit | |
| <i>Sialia mexicana</i> | Western Bluebird | MSCP |
| <i>Turdus migratorius</i> | American Robin | |
| <i>Mimus polyglottos</i> | Northern Mockingbird | |
| <i>*Sturnus vulgaris</i> | European Starling | |
| <i>Mniotilta varia</i> | Black-and-white Warbler | |
| <i>Oreothypis celata</i> | Orange-crowned Warbler | |
| <i>Geothlypis trichas</i> | Common Yellowthroat | |
| <i>Setophaga petechia</i> | Yellow Warbler | SSC |
| <i>Icteria virens</i> | Yellow-breasted Chat | SSC |
| <i>Pipilo maculatus</i> | Spotted Towhee | |
| <i>Melospiza crissalis</i> | California Towhee | |
| <i>Melospiza melodia</i> | Song Sparrow | |
| <i>Zonotrichia leucophrys</i> | White-crowned Sparrow | |

| Scientific Name | Common Name | Special Status |
|----------------------------------|----------------------------|----------------|
| <i>Piranga ludoviciana</i> | Western Tanager | |
| <i>Pheucticus melanocephalus</i> | Black-headed Grosbeak | |
| <i>Agelaius phoeniceus</i> | Red-winged Blackbird | |
| <i>Quiscalus mexicanus</i> | Great-tailed Grackle | |
| * <i>Molothrus ater</i> | Brown-headed Cowbird | |
| <i>Icterus cucullatus</i> | Hooded Oriole | |
| <i>Haemorhous mexicanus</i> | House Finch | |
| <i>Spinus psaltria</i> | Lesser Goldfinch | |
| * <i>Passer domesticus</i> | House Sparrow | |
| * <i>Lonchura punctulata</i> | Nutmeg Mannikin | |
| Mammals | | |
| <i>Sylvilagus audubonii</i> | Desert Cottontail | |
| <i>Ostospermophilus beecheyi</i> | California Ground Squirrel | |
| <i>Thomomys bottae</i> | Botta's Pocket Gopher | |
| <i>Canis latrans</i> | Coyote | |
| <i>Procyon lotor</i> | Northern Raccoon | |
| <i>Odocoileus hemionus</i> | Southern Mule Deer | MSCP |

Legend

*= Non-native or invasive species

Special Status:

Federal:

FE = Endangered

FT = Threatened

State:

SE = Endangered

ST =Threatened

SSC= California Species of Special Concern

CFP = California Fully Protected Species

Appendix D

Special-Status Plant Species Potential to Occur

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|--|---------------------------------------|-----------------------|---|
| San Diego thornmint (<i>Acanthomintha ilicifolia</i>) | FT/CE CRPR List 1B.1 MSCP SD NE MSCP Santee | Grassy openings in chaparral and coastal sage scrub, grassland, vernal pools. Prefers friable or broken clay soils. 10-960m. Blooming period: April-June | No | Not Expected | Site soils consists primarily of alluvium. No suitable clay soils for this species are present. |
| Nuttall's lotus (<i>Acmispon prostratus</i>) | CRPR 1B.1 MSCP SD | Annual herb. Coastal dunes and sandy coastal scrub; 0-10 m (0-32 ft). Blooming period: March - July | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| California adolphia (<i>Adolphia californica</i>) | CRPR 2B.1 | Chaparral, coastal scrub, grassland. 45-740m Blooming period: Dec-May | No | Not Expected | Diegan coastal sage scrub within the study area is primarily broom baccharis recruits on a road embankment. This species would not be expected to volunteer on this sort of location. Would have been observed if present during rare plant or gnatcatcher surveys. |
| Shaw's agave (<i>Agave shawii</i> var. <i>shawii</i>) | CRPR 2B.1 MSCP SD NE | Perennial leaf succulent. Coastal bluff scrub, coastal scrub; 10-120 m (32-393 ft). Blooming period: September - May | No | Not Expected | No appropriate coastal bluff habitat is present in the study area. |
| San Diego bur-sage (<i>Ambrosia chenopodiifolia</i>) | CRPR 2B.1 | Perennial shrub. Coastal scrub; 55-155 m (178-508 ft). Blooming period: April - June | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| Singlewhorl burrobush (<i>Ambrosia monogyra</i>) | CRPR 2B.2 | Chaparral, riparian scrub, and Sonoran desert scrub in sandy soil 10-500m Blooming period: Aug-Nov | No | Low | This species has potential to occur in sandy coastal floodplains. Prominent woody species was not observed during focused rare plant surveys for this species. |
| San Diego ambrosia (<i>Ambrosia pumila</i>) | FE CRPR 1B.1 MSCP SD NE MSCP Santee | Chaparral, coastal sage scrub, grassland, vernal pools, often in disturbed areas. Can occur in creek beds, seasonally dry drainages, and floodplains. 20-415m Blooming period: Apr-Oct | No | Low | Potential to occur on benches on or near floodplains of large rivers, but not observed during focused rare plant surveys for this species. |
| Aphanisma (<i>Aphanisma blitoides</i>) | CRPR 1B.2 MSCP SD NE | Annual herb. Sandy soils in coastal bluff scrub, coastal dunes, and coastal scrub; 1-305 m (3-1000 ft). Blooming period: March - June | No | Not Expected | Species of the immediate coast. Appropriate soils not present in the study area. |
| Del Mar manzanita (<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>) | FE CRPR 1B.1 MSCP SD | Low growing chaparral with eroding sandstone as substrate. 0-365m Blooming period: Dec-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|-------------------------------------|---|---------------------------------------|-----------------------|---|
| Otay manzanita (<i>Arctostaphylos otayensis</i>) | CRPR 1B.2 MSCP SD | Evergreen shrub. Chaparral or cismontane woodlands on volcanic rock outcrops; 275-1700 m (902-5576 ft). Blooming period: January - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| San Diego sagewort (<i>Artemisia palmeri</i>) | CRPR 4.2 | Chaparral, coastal scrub, riparian habitats in sandy soil 15-915m Blooming period: Feb-Sept | Yes | Present | Species was observed within San Diego River within the study area buffer. Not present within the project boundary. |
| Dean's milkvetch (<i>Astragalus deanei</i>) | CRPR 1B.1 | Open shrubby slopes. Associated with coastal sage scrub, chaparral, and sandy washes. 75-695m Blooming period: Feb-May | No | Not Expected | No appropriate habitat is present in the study area. |
| Coastal dunes milk vetch (<i>Astragalus tener</i> var. <i>titi</i>) | FE, SE CRPR 1B.1 MSCP SD NE | Annual herb can be found in dune, coastal sage scrub, coastal prairie and vernal pool habitats. Blooming period: March to May. | No | Not Expected | This is a species of coastal dunes. No reasonable potential at this inland site. Presumed extirpated from San Diego beaches. |
| Coulter's saltbush (<i>Atriplex coulteri</i>) | CRPR 1B.2 | Coastal habitats and grassland in alkaline or clay soils 3-460m Blooming period: Mar-Oct | No | Not Expected | No appropriate habitat is present in the study area. |
| Parish brittlescale (<i>Atriplex parishii</i>) | CRPR 1B.1 | Chenopod scrub, playas, vernal pools. 25-1900m Blooming period: Jun-Oct | No | Not Expected | No appropriate habitat is present in the study area. |
| Encinitas baccharis (<i>Baccharis vanessae</i>) | FT/CE CRPR 1B.1 MSCP SD | Generally coastally influenced chaparral and, cismontane woodland. 60-720m Blooming period: Aug-Nov | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Golden-spined cereus (<i>Bergerocactus emoryi</i>) | CRPR 2B.2 | Perennial stem succulent. Sandy soils in costal scrub, chaparral, and closed-cone coniferous forest, moist ocean breezes may be a key to its habitat requirements; 3-395 m (9-1295 ft). Blooming period: May - June | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| San Diego goldenstar (<i>Bloomeria clevelandii</i>) | CRPR 1B.1 MSCP SD MSCP Santee | Openings in chaparral or coastal scrub; grasslands and vernal pools in clay soils. 50-465m Blooming period: Apr-May | No | Low | The species is known from the hills to the north, but the soils of the site consist primarily of alluvium. No suitable clay soils for this species are present. Not observed during focused rare plant surveys. |
| Thread-leaved brodiaea (<i>Brodiaea filifolia</i>) | FT/CE CRPR 1B.1 MSCP SD NE | Openings in cismontane woodlands, chaparral, and coastal scrub, playas, grasslands, and vernal pools, often in clay soils 25-1120m Blooming period: Mar-Jun | No | Not Expected | Site soils consists primarily of alluvium. No suitable clay soils for this species are present. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|---------------------------------|---|---------------------------------------|-----------------------|--|
| Orcutt's brodiaea (<i>Brodiaea orcuttii</i>) | CRPR 1B.1 MSCP SD | Moist grasslands, near streams and the periphery of vernal pools. 0-1600m (0-5249ft). Blooming period: May-July | No | Not Expected | While this species is normally found in mesic sites, it is not associated with riverine floodplains. The soils of the site consist primarily of alluvium. No suitable clay soils or vernal pools for this species are present. |
| Lakeside ceanothus (<i>Ceanothus cyaneus</i>) | CRPR 1B.2 SD MSCP NE | Closed-cone coniferous forest, dense chaparral of central San Diego County. 235-755m Blooming period: Apr-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Otay Mountain ceanothus (<i>Ceanothus otayensis</i>) | CRPR 1B.2 | Perennial evergreen shrub. Metavolcanic or gabbroic chaparral; 600-1100 m (1968-3608 ft). Blooming period: January - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Wart-stemmed ceanothus (<i>Ceanothus verrucosus</i>) | CRPR 2B.2 MSCP SD | Evergreen shrub of chaparral in the coastal fog belt. 1-380m Blooming period: Dec-May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) | CRPR 1B.1 | Marshes and swamps, valley and foothill grassland(mesic), vernal pools 0-425m Blooming period: May-Nov | No | Low | Marginally suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>) | CRPR 1B.1 | Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland 0-640m Blooming period: Apr-Sept | No | Low | Marginally suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Orcutt's pincushion (<i>Chaenactis glabruiscula</i> var. <i>orcuttiana</i>) | CRPR 1B.1 | Annual herb. Sandy openings in closed-cone coniferous forest, maritime chaparral, and coastal scrub; 3-125 m (9-410 ft). Blooming period: March - May | No | Not Expected | No appropriate habitat is present in the study area. |
| Salt marsh bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>) | FE, CE, CRPR 1B.2 MSCP SD | Hemiparasitic annual herb. Coastal dunes and coastal salt marshes and swamps; 0-30 m (0-100 ft). Blooming period: May - October | No | Not Expected | No appropriate habitat is present in the study area. |
| Orcutt's spineflower (<i>Chorizanthe orcuttiana</i>) | FE, CE, CRPR 1B.1 | Annual herb. Clay lenses, largely devoid of shrubs in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools; 30-1530 m (100-5,020 ft). Blooming period: April - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>) | CRPR 1B.2 | Clay lenses, largely devoid of shrubs. Occasionally seen on the periphery of vernal pool habitat and the periphery of montane meadows near vernal seeps. Below 1400m (4,600ft). Blooming period: Apr-Jul | No | Not Expected | No appropriate habitat is present in the study area. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------------|--|---------------------------------------|-----------------------|---|
| Delicate clarkia (<i>Clarkia delicata</i>) | CRPR 1B.2 | Oak woodlands and chaparral often in gabbro soils. 235-1000m (770-3,300ft). Blooming period: Apr-Jun | No | Not Expected | No appropriate soils are present in the study area. |
| San Miguel savory (<i>Clinopodium chandleri</i>) | CRPR 1B.2 MSCP SD | Chaparral, cismontane woodland, coastal scrub, riparian woodland, and grasslands in rocky, gabbro, or metavolcanic soils 120-1075m Blooming period: Mar-Jul | No | Not Expected | No appropriate habitat is present in the study area. |
| Summer holly (<i>Comarostaphylis diversifolia</i> var. <i>diversifolia</i>) | CRPR 1B.2 | Southern mixed chaparral, usually on mesic north-facing slopes. Almost the entire population occurs west of Interstate 15. 100-550m (328-1804ft). Blooming period: Apr-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| San Diego sand aster (<i>Corethrogyne filaginifolia</i> var. <i>incana</i>) | CRPR 1B.1 | Perennial herb. Coastal bluff scrub, chaparral, and coastal scrub; 3-115 m (10-377 ft). Blooming period: June - September | No | Not Expected | No appropriate habitat is present in the study area. |
| Del Mar Mesa sand aster (<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>) | CRPR 1B.1 MSCP SD | Perennial herb. Sandy soils in coastal bluff scrub, coastal scrub, and openings in maritime chaparral; 15-150 m (49-492 ft). Blooming period: May-September | No | Not Expected | No appropriate habitat is present in the study area. |
| Snake cholla (<i>Cylindropuntia californica</i> var. <i>californica</i>) | CRPR 1B.1 MSCP SD NE | Stem succulent. Chaparral and coastal scrub, typically on xeric hillsides; 30-150 m (98-492 ft). Blooming period: April - May | No | Not Expected | No appropriate habitat is present in the study area. |
| Otay tarplant (<i>Deinandra conjugens</i>) | FE, CE, CRPR 1B.1 MSCP SD NE | Annual herb. Clay soils in coastal sage scrub and valley and foothill grassland; 25-300 m (82-984 ft). Blooming period: May - June | No | Not Expected | No appropriate heavy clay soils are present in the study area. |
| Orcutt's bird's beak (<i>Dicranostegia orcuttiana</i>) | CRPR 2B.1 | Hemi-parasitic annual herb. Coastal scrub, seasonally dry drainages, uplands adjacent to riparian habitat; 10-350 m (32-1150 ft). Blooming period: March - September | No | Low | Marginally suitable habitat present the study area. Not observed during focused rare plant surveys. |
| Blochman's dudleya (<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>) | CRPR 1B.1 | Perennial herb. Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland; 5-450 m (16-1476 ft). Blooming period: April - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Short-leaved dudleya (<i>Dudleya brevifolia</i>) | CRPR 1B.1 MSCP SD NE | Perennial herb. Torrey sandstone in coastal scrub and openings in maritime chaparral; 30-250 m (100-820 ft). Blooming period: April - May | No | Not Expected | No appropriate habitat is present in the study area. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|---|---------------------------------------|-----------------------|---|
| Variegated dudleya (<i>Dudleya variegata</i>) | CRPR 1B.2 MSCP SD NE MSCP Santee | Openings in chaparral, cismontane woodland, and coastal sage scrub, isolated rocky substrates in open grasslands, and vernal pools 3-580m Blooming period: Apr-Jun | No | Not Expected | No appropriate habitat is present in the study area. Would not occur in the disturbed, revegetated coastal sage scrub present in the buffer area. |
| Sticky dudleya (<i>Dudleya viscida</i>) | CRPR 1B.2 MSCP SD | Perennial herb. Rocky soils in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub; 10-550 m (32-1804 ft). Blooming period: May - June | No | Not Expected | No appropriate habitat is present in the study area. Would not occur in the disturbed, revegetated coastal sage scrub present in the buffer area. |
| Palmer's goldenbush (<i>Ericameria palmeri</i> var. <i>palmeri</i>) | CRPR 1B.1 MSCP SD NE | Coastal drainages, in mesic chaparral sites, or rarely in coastal sage scrub. Below 600m (1969ft). Blooming period: Jul-Nov | No | Not Expected | No appropriate habitat is present in the study area. |
| San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>) | FE/CE CRPR 1B.1 MSCP SD MSCP Santee | Vernal Pools, coastal sage scrub, valley and foothill grassland in mesic soils. 20-620m Blooming period: Apr-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Sand-loving wallflower (<i>Erysimum ammodendrum</i>) | CRPR 1B.2 | Perennial herb. Sandy openings in maritime chaparral, coastal dunes, and coastal scrub; 0-60 m (0-196 ft). Blooming period: February - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Cliff spurge (<i>Euphorbia misera</i>) | CRPR 2B.2 | Perennial shrub. Rocky areas in coastal bluff scrub, coastal scrub, and Mojavean desert scrub; 10-500 m (32-1640 ft). Blooming period: December - October | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| San Diego barrel cactus (<i>Ferocactus viridescens</i>) | CRPR 2B.1 MSCP SD MSCP Santee | Chaparral, coastal scrub, grasslands and vernal pools in sandy to rocky areas. 10-150m (33-492ft). Blooming period: May-Jun | No | Not Expected | Species is known from coastal sage scrub in the vicinity but is unlikely to occur in the roadside fill slope within the study area. |
| Palmer's Frankenia (<i>Frankenia palmeri</i>) | CRPR 2B.1 | Perennial herb. Coastal dunes, coastal salt marshes and swamps, playas; 0-10 m (0-32 ft). Blooming period: May - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Mexican flannelbush (<i>Fremontodendron mexicanum</i>) | FE, CR CRPR 1B.1 | Evergreen shrub. Gabbroic, metavolcanic, or serpentine soils in closed-cone coniferous forest, chaparral, and cismontane woodland; 10-716 m (32-2349 ft). Blooming period: March - June | No | Not Expected | No appropriate chaparral habitat is present in the study area. Outside of the known range of this species. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|------------------------------|--|---------------------------------------|-----------------------|--|
| Desert bedstraw (<i>Galium proliferum</i>) | CRPR 2B.2 | Annual herb. Rocky or limestone carbonate areas in Joshua tree woodland, Mojavean desert scrub, and Pinyon and Juniper woodland; 1190-1630 m (3903-5346 ft). Blooming period: March - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Mission Canyon bluecup (<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>) | CRPR 3.1 | Annual herb. Mesic soils and disturbed areas within chaparral; 450-700 m (1476-2296 ft). Blooming period: April - June | No | Not Expected | No appropriate habitat is present in the study area. |
| San Diego gumplant (<i>Grindelia hallii</i>) | CRPR 1B.2 | Perennial herb. Meadows, chaparral, lower montane coniferous forest, and valley and foothill grassland; 185-1745 m (606-5723 ft). Blooming period: May - October | No | Not Expected | This is a montane species. No appropriate habitat present in the study area. |
| Palmer's grappling hook (<i>Harpagonella palmeri</i>) | CRPR 4.2 | Chaparral, coastal scrub, grasslands in clay soils 197-8924m (60 to 2720ft). Blooming period: Mar-May | No | Not Expected | No appropriate soils or habitat are present in the study area. |
| Tecate cypress (<i>Hesperocyparis forbesii</i>) | CRPR 1B.1 | Coniferous forests and chaparral in clay, gabbro, or meta-volcanic soils 80-1500m | No | Not Expected | No appropriate soils and chaparral habitat are present in the study area. |
| Beach goldenaster (<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>) | CRPR 1B.1 | Perennial herb. Coastal chaparral, coastal dunes, and coastal scrub; 0-1225 m (0-4018 ft). Blooming period: March - December | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Graceful tarplant (<i>Holocarpha virgata</i> ssp. <i>elongata</i>) | CRPR 4.2 | Annual herb. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; 60-1100 m (196-3600 ft). Blooming period: May - November | No | Low | Known from the vicinity. Little suitable habitat for this species in the study area. Not observed during focused rare plant surveys. |
| Ramona horkelia (<i>Horkelia truncata</i>) | CRPR 1B.3 | Open chamise chaparral between 400-1300m (1312-4265ft). Blooming period: May-Jun | No | Not Expected | Suitable habitat not present within the study area. |
| Decumbent goldenbush (<i>Isocoma menziesii</i> var. <i>decumbens</i>) | CRPR 1B.2 | Chaparral, coastal scrub often in sandy disturbed areas 10-135m Blooming period: Apr-Nov | No | Low | Little suitable habitat for this species in the study area. Not observed during focused rare plant surveys. |
| San Diego marsh-elder (<i>Iva hayesiana</i>) | CRPR 2B.2 | Marshes and swamps, playas, creeks or intermittent streambeds 10-500m Blooming period: Apr-Oct | Yes | Present | Observed within the San Diego River on the far side of the southern berm; species is present only in the 100-ft buffer from the project area. No individuals present onsite. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------|--|---------------------------------------|-----------------------|---|
| Southern California black walnut (<i>Juglans californica</i> var. <i>californica</i>) | CRPR 4.2 | Deciduous tree. Alluvial areas in chaparral, cismontane woodland, and coastal scrub; 50-900 m (164-2952 ft). Blooming period: March - August | Yes | Present | Several individuals were observed within riparian habitat along the southern boundary of the site, within the San Diego River, as well as areas within the golf course that will not be altered (avoidance areas). Many previously mapped occurrences of this species (HELIX 2017) are non-native pecan (<i>Carya illinoensis</i>). |
| Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>) | CRPR 4.2 | Perennial rhizomatous herb. Mesic soils in coastal dunes, alkaline seeps in meadows and seeps, and coastal salt marshes and swamps; 3-900 m (9-2953 ft). Blooming period: May - June | Yes | Present | Observed within the San Diego River in the 100-ft buffer from the project boundary and within avoidance areas within Sycamore Creek within the project boundary. |
| Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>) | CRPR 1B.1 | Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 1-1220 m (3-4001 ft). Blooming period: February - June | No | Not Expected | While this species is normally found in mesic sites, it is not associated with riverine floodplains. The soils of the site consist primarily of alluvium. No suitable clay soils or vernal pools for this species are present. |
| Heart-leaf pitcher sage (<i>Lepechinia cardiophylla</i>) | CRPR 1B.2 MSCP SD NE | Closed-cone coniferous forest, chaparral, cismontane woodland 520-1370m Blooming period: Apr-Jul | No | Not Expected | No appropriate habitat is present in the study area. |
| Gander's pitcher sage (<i>Lepechinia ganderi</i>) | CRPR 1B.3 MSCP SD | Perennial shrub. Gabbroic or metavolcanic soils in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland; 305-1005 m (1000-3296 ft). Blooming period: June - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>) | CRPR 4.3 | Openings in chaparral and sage scrub, generally well away from the coast in Southern California in the foothill elevations. Below 885m. Blooming period: Jan-Jul | No | Low | Marginally suitable habitat present in the study area. Not observed during focused rare plant surveys. |
| Sea dahlia (<i>Leptosyne maritima</i>) | CRPR 2B.2 | Perennial herb. Coastal bluff scrub and coastal scrub; 5-150 m (16-492 ft). Blooming period: March - May | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Felt-leaf monardella (<i>Monardella hypoleuca</i> var. <i>lanata</i>) | CRPR 1B.2 MSCP SD | Chamise chaparral understory. 300-1000m (984-3280 ft). Blooming period: Jun-Aug | No | Not Expected | No appropriate habitat is present in the study area. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|---|---------------------------------------|-----------------------|---|
| Willow monardella (<i>Monardella viminea</i>) | FE, CE CRPR 1B.1 MSCP SD NE MSCP Santee | Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland, alluvial ephemeral washes, usually at sandy locales in seasonally dry washes 50-225m Blooming period: Jun-Aug | No | Low | Species is present upstream in Sycamore Creek, in ephemeral washes above Santee Lakes. Sycamore Creek within the study area does not have appropriate habitat or hydrology to support this species. Not observed during focused rare plant surveys. |
| Little mousetail (<i>Myosurus minimus</i> ssp. <i>apus</i>) | CRPR 3.1 | Vernal pools 20-640m Blooming period: Mar-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Mud nama (<i>Nama stenocarpum</i>) | CRPR 2B.2 | Annual/perennial herb. Marshes and swamps, also riverbanks and lake margins; 5-500 m (16- 1640 ft). Blooming period: January - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Spreading navarretia (<i>Navarretia fossalis</i>) | FT CRPR 1B.1 MSCP SD NE | Chenopod scrub, marshes and swamps, vernal pools 30-655m Blooming period: Apr-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Prostrate vernal pool navarretia (<i>Navarretia prostrata</i>) | CRPR 1B.2 | Annual herb. Mesic coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pools; 15-1210 m (49- 3968 ft). Blooming period: April - July | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Coast woolly-heads (<i>Nemacaulis denudata</i> var. <i>denuata</i>) | CRPR 1B.2 | Annual herb. Coastal dunes; 0-100 m (0-328 ft). Blooming period: April - September | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Slender cottonheads (<i>Nemacaulis denudata</i> var. <i>gracilis</i>) | CRPR 2B.2 | Annual herb. Coastal dunes, desert dunes, and Sonoran desert scrub; -50 – 400 m (-164 – 1312 ft). Blooming period: March - May | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| California Orcutt grass (<i>Orcuttia californica</i>) | FE, CE CRPR 1B.1 MSCP SD NE | Annual herb. Vernal pools; 15-660 m (50-2165 ft). Blooming period: April - August | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Short-lobed broomrape (<i>Orobancha parishii</i> ssp. <i>brachyloba</i>) | CRPR 4.2 | Parasitic perennial herb. Sandy coastal bluff scrub, coastal dunes, and coastal scrub; 3-305 m (9-1000 ft). Blooming period: April - October | No | Not Expected | This is a species of coastal marshes. No reasonable potential at this inland site. |
| California adder's-tongue (<i>Ophioglossum californicum</i>) | CRPR 4.2 | Perennial rhizomatous herb. Mesic areas in chaparral, valley and foothill grasslands, and the margins of vernal pools; 60-525. Blooming period: December - Jun | No | Not Expected | Appropriate soils and habitat are not present within the study area. |
| Gander's ragwort (<i>Packera ganderi</i>) | CR CRPR 1B.2 MSCP SD | Openings in chaparral on metavolcanic, mafic or gabbro soils. 400-1200m Blooming period: Apr-Jun | No | Not Expected | Appropriate habitat and soils are not present in the study area. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|---|---|---------------------------------------|-----------------------|--|
| Torrey pine (<i>Pinus torreyana</i> ssp. <i>torreyana</i>) | CRPR 1B.2 | Perennial evergreen tree. Sandstone in closed-cone coniferous forest and chaparral; 75-160 m (246-524 ft). | No | Not Expected | No appropriate habitat is present in the study area. |
| Golden-rayed pentacheata (<i>Pentacheata aurea</i> ssp. <i>aurea</i>) | CRPR 4.2 | Chaparral, cismontane woodland, coastal scrub, coniferous forest, riparian woodland, grasslands 80-1850m Blooming period: Mar-Jul | No | Low | Marginal suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| San Diego mesa mint (<i>Pogogyne abramsii</i>) | FE/CE CRPR 1B.1 MSCP SD NE MSCP Santee | Clay pan vernal pools in central San Diego County 90-200m Blooming period: Mar-June | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Otay mesa mint (<i>Pogogyne nudiuscula</i>) | FE CRPR 1B.1 MSCP SD NE | Clay pan vernal pools in southern San Diego County 90-200m Blooming period: Mar-June | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| White rabbit tobacco (<i>Pseudognaphalium leucocephalum</i>) | CRPR 2B.2 | Perennial herb. Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland; 0-2100 m (0-6888 ft). Blooming period: July - December | No | Low | Marginal suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Cedros Island oak (<i>Quercus cedrosensis</i>) | CRPR 2B.2 | Evergreen tree. Closed-cone coniferous forest, chaparral, coastal scrub; 255-960 m (836-3148). Blooming period: April - May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Nuttall's scrub oak (<i>Quercus dumosa</i>) | CRPR 1B.1 | Coastal chaparral with a generally open canopy cover 15-400m Blooming period: Feb-Aug | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Munz's sage (<i>Salvia munzii</i>) | CRPR 2B.2 | Evergreen shrub. Chaparral and coastal sage scrub; 120-1065 m (393-3493 ft). Blooming period: February - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Ashy spike-moss (<i>Selaginella cinerascens</i>) | CRPR 4.1 | Perennial rhizomatous herb. Undisturbed chaparral and coastal sage scrub; 20-640 m (65-2100 ft). Rarely inhabits disturbed soils. | No | Not Expected | Diegan coastal sage scrub within the study area is primarily broom baccharis recruits on a road embankment. This species is not known to recruit onto this sort of disturbed location. Not observed during focused rare plant surveys. |
| Rayless ragwort (<i>Senecio aphanactis</i>) | CRPR 2B.2 | Coastal sage scrub, chaparral, cismontane woodland, alkaline flats 15-800m Blooming period: Jan-Apr | No | Low | Appropriate soils and habitat not present in the study area. |
| Blue streamwort (<i>Stemodia durantifolia</i>) | CRPR 2B.1 | Sonoran desert scrub, riparian woodland, often in mesic sandy soils 180-300m Blooming period: Jan-Dec | No | Low | Marginal habitat present within the study area. Not observed during rare plant surveys. |

Appendix D. Sensitive Plant Species Potential to Occur

| Common Name (<i>Scientific Name</i>) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------|---|---------------------------------------|-----------------------|---|
| Estuary seablite (<i>Suaeda esteroa</i>) | CRPR 1B.2 | Perennial herb. Coastal salt marshes and swamps; 0-5 m (0-16 ft). Blooming period: May - January | No | Not Expected | This is a species of coastal marshes. No reasonable potential at this inland site. |
| Parry's tetraococcus (<i>Tetraococcus dioicus</i>) | CRPR 1B.2 MSCP SD | Chamise chaparral and coastal scrub. Below 1000m (3280ft). Blooming period: Apr-May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Rush chaparral-star (<i>Xanthisma junceum</i>) | CRPR 4.3 | Slender perennial in chamise chaparral and Diegan sage scrub communities. Blooming period: July - January | No | Low | Not expected in the disturbed Diegan coastal sage scrub present in the buffer area. Not observed during rare plant surveys. |
| <p>Legend:</p> <p>Status:</p> <p>Federal FE - Listed as endangered under the federal Endangered Species Act. FT - Listed as threatened under the federal Endangered Species Act.</p> <p>California CE - Listed as endangered under the California Endangered Species Act. CT - Listed as threatened under California Endangered Species Act. CR - Listed as rare under Native Plant Protection Act (FGC Section 1900 et seq.).</p> <p>CA Rare Plant Rank (CRPR) – Formerly known as CNPS List 1B. Rare, Threatened, or Endangered in California and elsewhere 2B. Rare, Threatened, or Endangered in California, more common elsewhere 3. Plants for which we more information is needed - Review list 4. Plants of limited distribution - Watch list</p> <p>Threat Ranks .1 - Seriously endangered in California .2 – Fairly endangered in California .3 – Not very endangered in California</p> <p>San Diego Multiple Species Conservation Plan (MSCP) MSCP SD – Covered Species under the City of San Diego MSCP Subarea Plan MSCP SD NE – Listed as a Narrow Endemic species in the San Diego MSCP MSCP Santee– Proposed Covered Species under Santee MSCP Subarea Plan</p> <p>References: Special Status listing information from CDFW 2021. Nomenclature and plant descriptions from: CNPS Online Inventory, Calflora.org, Baldwin 2012, Lightner 2011, Reiser 2001. Range information from CNDDB 2019, CNPS 2019, and SDNHM Plant Atlas Project 2019.</p> | | | | | |

Appendix F
2019 Western Pond Turtle Trapping Study



MEMORANDUM

To: Ryan Green; Lennar
From: William Kohn; ICF
Date: October 22 2019
Re: Turtle Trapping Study in support of Carlton Oaks Residential Project

Introduction

This turtle trapping study was conducted to evaluate presence/absence of southern western pond turtle (SWPT; *Actinemys pallida*) at a pond located within the Carlton Oaks golf course in Santee, California (Figures 1 and 2).

In April 2019, ICF biologist Will Kohn conducted a desktop analysis and field habitat assessment to identify suitable habitat for SWPT that could be impacted by the Carlton Oaks Residential Project (Project). The habitat assessment indicated potential habitat for SWPT is present within the Project. During the habitat assessment, non-native red-eared slider (*Trachemys scripta elegans*) as well as an unidentified turtle was observed within the Project. It was unknown if the unidentified turtle was a native SWPT or an introduced species. This turtle trapping study was conducted to further investigate the potential for SWPT to occur within the Project. Results of this study will be incorporated into the Biological Technical Report and used to support the CEQA document and the state regulatory permitting with the California Department of Fish and Wildlife (CDFW).

There are three ponds located within the golf course, Ponds A, B and C (Figure 3) (Appendix A, Photos 1-4); two of these ponds (Pond A and Pond C) are located within the Project area. Pond A is associated with the Sycamore Creek and was created by a weir that impounds the creek. Pond B and C are isolated ponds that are fed naturally by rain in the winter and spring and artificially by runoff from the golf course. Turtles were observed within Pond A and B during the assessment; no turtles were observed within Pond C during the assessment. Ponds A and C would be directly affected by the Project while Pond B will not be affected. Therefore, the turtle surveys initially focused on Pond A and C. At the time of trapping, Pond C had minimal water, less than 6 inches and no turtles were observed within the pond. Therefore the turtle trapping surveys were only conducted in Pond A.

SWPT are found in a range of aquatic habitats including creeks, ponds, canals, and other water bodies (Rathbun et al 2002). They prefer habitats with slowly flowing water and need structures for basking sites (such as exposed banks and logs) as well as complex habitat for aquatic and streamside refuge areas (such as deep pools, undercut banks, and emergent vegetation) (Reese & Welsh 1997). Suitable habitat for reproductive SWPT populations must have nearby, accessible upland habitat for nesting and overwintering (Lovich & Meyer 2002, Holland 1991).



Methods

Trapping was conducted by ICF biologist William Kohn (SCP #3387). The ponds were prioritized for trapping based on previous turtle observations, habitat suitability for SWPT, and ponds that would be directly impacted by the Project. Pond A chosen for trap deployment based on the fact that suitable aquatic and upland habitat was present, the pond would be directly impacted by the project, and turtles were observed within the pond during the habitat assessment and a visual survey at the beginning of the trapping survey. Pond B would not be affected by the project. Additionally, the banks of the pond are nearly vertical preventing any turtles present from moving out of the pond. Pond C would be directly affected by the Project. However, water in the pond was minimal, less than 6 inches depth, at the time of trapping and no turtles were observed within the pond during the habitat assessment and a visual survey at the beginning of the trapping survey.

Trapping was conducted based on the recommended guidelines provided by the *USGS Western Pond Turtle (Emys marmorata) Trapping Survey Protocol for the Southcoast Ecoregion* (USGS 2006a). Visual surveys for turtles were conducted opportunistically between trap deployments and trap checks, and generally followed recommended guidelines provided by the *USGS Western Pond Turtle Visual Survey Protocol for the Southcoast Ecoregion Survey Protocol* (USGS 2006b).

Prior to the trapping survey, the study's trapping plan was submitted to Laura Patterson and Tim Hovey at CDFW for review and approval. On August 20, 2019, Ms. Patterson and Mr. Hovey provided written approval of the trapping plan prior to initiation of the study.

Floating hoop-style turtle traps were used. Each trap measured approximately 3-foot diameter by 5-foot long, with 2-inch mesh size, and was held open with two PVC poles (Appendix A Photos 5-8). Prior to the trapping effort, all gear was decontaminated and each trap was cleaned using chlorine bleach and left to dry. Two empty 1-gallon plastic jugs were attached to each trap for floatation. Traps were floated such that captured animals would have space to breathe in the chambers, while keeping the trap funnel entrance submerged. Canned sardines in oil, which hung suspended in the trap chamber, were used as bait. A business card with the biologist's scientific collecting permit number was sealed in a plastic bag and attached to each trap.

Prior to deploying traps, ICF biologists surveyed each trapping site and made visual observations with the aid of binoculars. At trap deployment, photos were taken of each trap site and water and air temperature was recorded. After deployment, traps were checked twice a day (in the morning and afternoon).

Data collected during trap deployments and at trap checks included: GPS location, date and time, weather conditions, water and air temperatures, identification of all species captured. Captured turtles were identified, measured for carapace length (CL), carapace width (CW), and weight, and photographed. If a SWPT was collected, its age would be estimated by counting annuli on scutes of the plastron and/or carapace. If a trap was empty, bait was supplemented, if needed, then the trap was redeployed. Traps were removed at the conclusion of the study.

Trapping Results

Turtle trapping was conducted at four sites within Pond A by ICF wildlife biologist Will Kohn (Figure 3). Trap deployments are shown in the photo log. Traps were deployed for four days and three nights between September 3, 2019 and September 6, 2019. Weather conditions during the trapping dates were favorable for pond turtles (Table 1). Temperatures were warm; air temperatures warmed from warm mornings to hot afternoons, ranging from 77-96 °F. Water temperatures at the trapping sites ranged from 78-83 °F. Winds were generally variable, skies were clear to cloudy. The afternoon trap check on 9/4/19 occurred during an afternoon rain shower.



Results of the trapping effort are presented in Table 2. No SWPT were captured nor observed during the trapping study. Eleven non-native red-eared sliders were captured: including two that were melanistic red-eared sliders. Photos of the melanistic turtle were sent to a contact at the Bradford Hollingsworth, herp curator at the San Diego Natural History Museum as well as colleague Jeff Alvarez to get confirmation. Both, Mr. Hollingsworth and Mr. Alvarez concluded that the turtle was a melanistic red-eared slider and not a SWPT. The two melanistic red-eared sliders that were captured suggests that visual surveys alone of the site would not allow for positive id of southwestern pond turtles within the pond. However, the results of the surveys suggest SWPT are likely not present within Pond A and the project would likely not affect SWPT.

Appendix B, Photos 1 through 8 show representative photos of red-eared sliders that were captured as well as incidental observations. American bullfrog adults (*Lithobates catesbeianus*) were incidentally observed at trap sites and a bluegill (*Lepomis macrochirus*) was captured in Trap 1 (Appendix B Photos 9 and 10).



Table 1. Survey Dates and Weather Conditions

| Trap Number | Time | Air Temp | Water Temp | Weather | Wind |
|-------------|---------------|----------|------------|-----------------------|----------|
| Trap 1 | 9/4/19, 09:30 | 90.5°F | 80°F | 0% cloud cover | calm |
| | 9/4/19, 14:50 | 87.5°F | 81°F | 100% cloud cover | 5-15 mph |
| | 9/5/19, 08:55 | 82.5°F | 79°F | 30% cloud cover | calm |
| | 9/5/19, 14:49 | 93.0°F | 82°F | 0% cloud cover | 0-2 mph |
| | 9/6/19, 07:45 | 75.0°F | 78°F | 0% cloud cover | calm |
| | 9/6/19, 15:00 | 96.0°F | 82°F | 0% cloud cover | 2-3 mph |
| Trap 2 | 9/4/19, 10:10 | 92.5°F | 80°F | 0% cloud cover | calm |
| | 9/4/19, 15:10 | 81.5°F | 80°F | 100% cloud cover/rain | 5-15 mph |
| | 9/5/19, 09:34 | 86.5°F | 79°F | 30% cloud cover | calm |
| | 9/5/19, 15:32 | 92.0°F | 83°F | 0% cloud cover | 2-4 mph |
| | 9/6/19, 08:25 | 76.0°F | 78°F | 0% cloud cover | calm |
| | 9/6/19, 16:05 | 95.0°F | 82°F | 0% cloud cover | 3-6 mph |
| Trap 3 | 9/4/19, 10:00 | 92.0°F | 80°F | 0% cloud cover | 0-2 mph |
| | 9/4/19, 15:18 | 81.5°F | 81°F | 100% cloud cover/rain | 5-15 mph |
| | 9/5/19, 09:42 | 86.5°F | 79°F | 30% cloud cover | calm |
| | 9/5/19, 14:49 | 92.0°F | 83°F | 0% cloud cover | 2-4 mph |
| | 9/6/19, 08:10 | 78.0°F | 78°F | 0% cloud cover | calm |
| | 9/6/19, 15:45 | 95.0°F | 83°F | 0% cloud cover | 3-6 mph |
| Trap 4 | 9/4/19, 09:50 | 91.5°F | 80°F | 0% cloud cover | 0-2 mph |
| | 9/4/19, 15:30 | 78.0°F | 81°F | 100% cloud cover/rain | 5-15 mph |
| | 9/5/19, 09:23 | 86.0°F | 79°F | 30% cloud cover | calm |
| | 9/5/19, 15:53 | 92.0°F | 81°F | 0% cloud cover | 2-4 mph |
| | 9/6/19, 08:00 | 77.0°F | 78°F | 0% cloud cover | calm |
| | 9/6/19, 15:30 | 95.0°F | 83°F | 0% cloud cover | 2-4 mph |



Table 2. Turtle Trap Results

| Trap Number (Project Site) | Latitude | Longitude | Trap Deployments | Trap Checks |
|-------------------------------|----------|-----------|-------------------------------------|--|
| Trap 1 | 33.8409N | 117.0094W | 9/3/19, 13:45 - 9/6/19, 15:00 | 9/4/19, 09:30: no captures 9/4/19, 14:50: no captures 9/5/19, 08:55: 2 red-eared sliders 9/5/19, 14:49: 1 bluegill fish 9/6/19, 07:45: no captures 9/6/19, 15:00: no captures |
| Trap 2 | 32.8413N | 117.0091W | 9/3/19, 14:15 - 9/6/19, 16:05 | 9/4/19, 10:10: 6 red-eared sliders and 1 melanistic red-eared slider 9/4/19, 15:10: no captures 9/5/19, 09:34: no captures; one red-eared slider observed basking 9/5/19, 15:32: no captures 9/6/19, 08:25: 1 red-eared slider 9/6/19, 16:05: no captures |
| Trap 3 | 32.8413N | 117.0087W | 9/3/19, 15:45 - 9/6/19, 15:45 | 9/4/19, 10:00: no captures 9/4/19, 15:18: no captures 9/5/19, 09:42: no captures 9/5/19, 15:44: no captures 9/6/19, 08:10: no captures 9/6/19, 15:45: 1 melanistic red-eared slider |
| Trap 4 | 32.8414N | 117.0083W | 9/3/19, 14:45 - 9/6/19, 15:30 | 9/4/19, 09:50: no captures 9/4/19, 15:30: no captures 9/5/19, 09:23: no captures 9/5/19, 15:32: no captures 9/6/19, 08:00: no captures 9/6/19, 15:30: no captures |

Google Earth. 2016. Google Earth Pro Version 7.1.1.1580.

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Lovich, J. and K. Meyer. 2002. The western pond turtle (*Clemmys marmorata*) in the Mojave River, California, USA: Highly adapted survivor or tenuous relict? *Journal of Zoology of London* 256:537-545.

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Reese, D. A. and H. H. Welsh. 1997. Use of terrestrial habitat by western pond turtles, *Clemmys marmorata*: Implications for management. In J. Van Abbema (Ed.), *Proceedings: Conservation, Restoration and Management of Tortoises and Turtles - an International Conference* (pp. 352-357). State University of New York, Purchase, NY.

U.S. Geological Survey. 2006a. Western Pond Turtle (*Emys marmorata*) Trapping Survey Protocol for the Southcoast Ecoregion. Draft Survey Protocol, version 1. Western Ecological Resource Center; Sacramento, California. Available online:
https://portal.sdmmp.com/download_efi.php?efiid=EFIID_ctamanah@usgs.gov_575ae6286e0b3

———. 2006b. DRAFT USGS Western Pond Turtle (*Emys marmorata*) Visual Survey Protocol for the Southcoast Ecoregion. Survey Protocol, version 1. Western Ecological Research Center; Sacramento, California.

Personal communication

Jeff Alvarez. Biologist. The Wildlife Project. Email correspondence with Will Kohn on September 9, 2019.

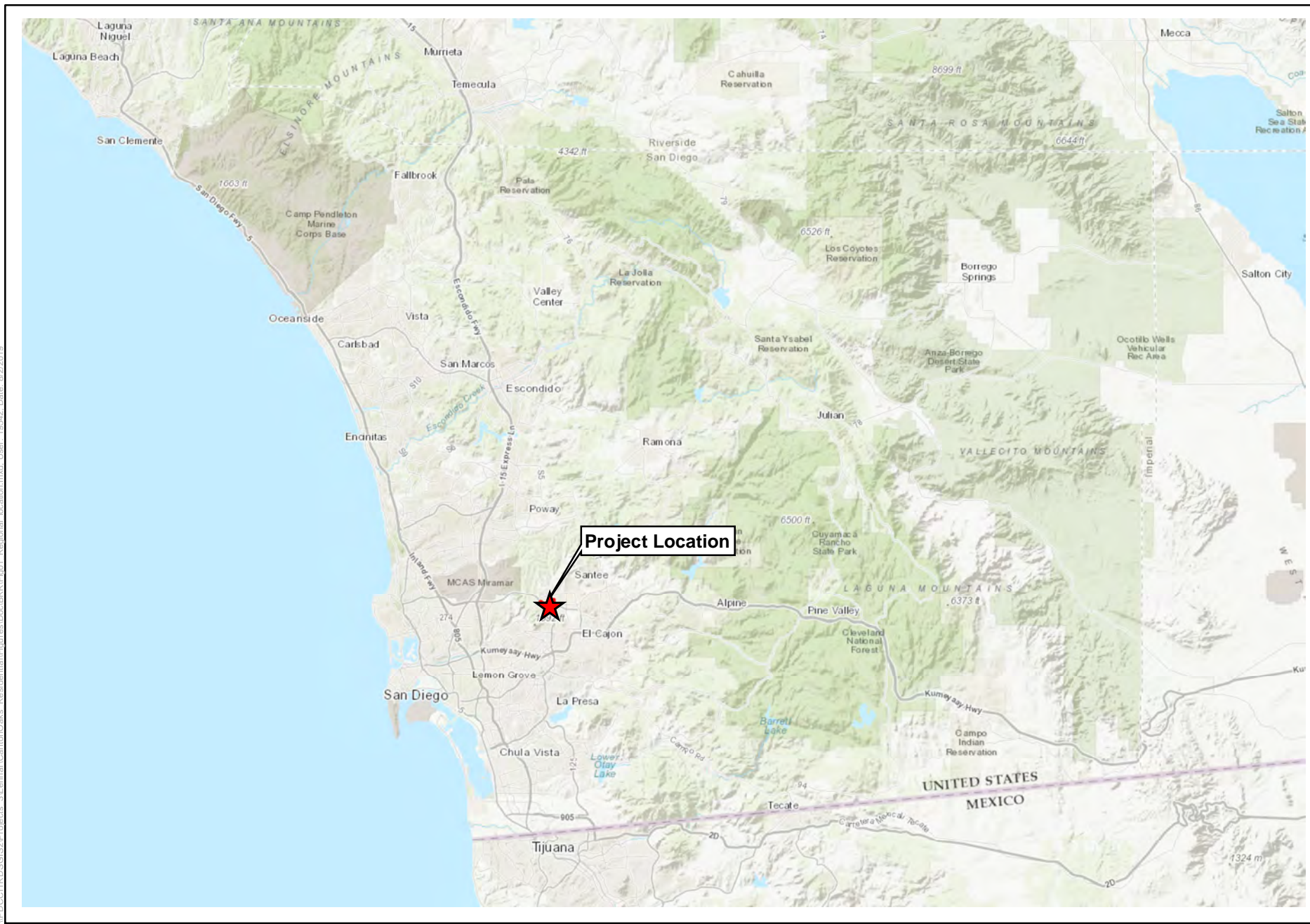
Tim Hovey. Biologist. California Department of Fish and Wildlife. Email correspondence with Will Kohn on August 20, 2019.

Laura Patterson. Biologist. California Department of Fish and Wildlife. Email correspondence with Will Kohn on August 20, 2019.

Drew Stokes. Biologist. San Diego Natural History Museum. Email correspondence with Will Kohn on September 4, 2019.



Figures



0 6 12
Miles
1 in = 12 miles

Figure 1
Regional Location

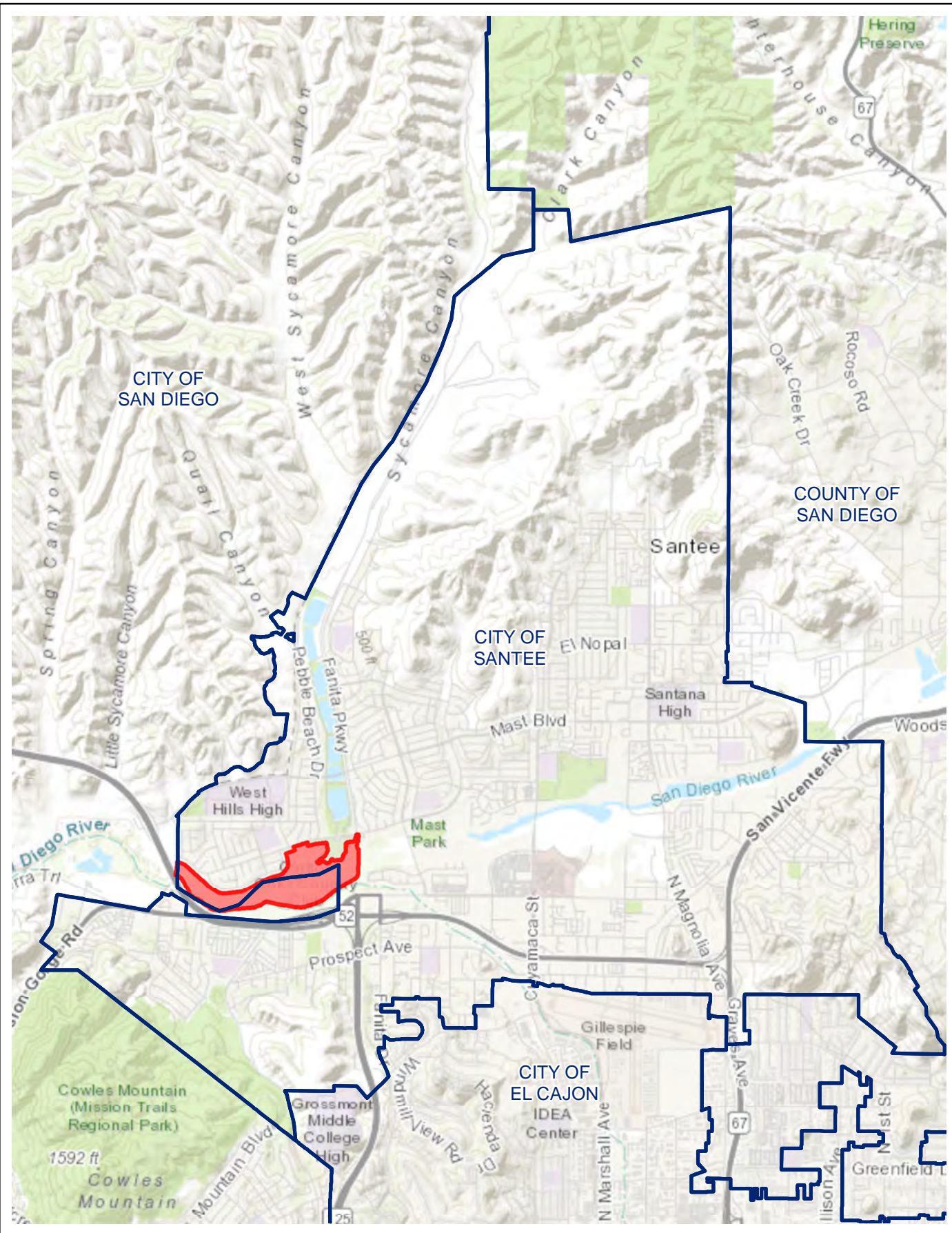


Figure 2 Project Vicinity

\\POC\ITRODS\GIS2\Projects_3\Lennar\CarltonOaks_Residential\Figures\Doc\Survey_Reports\SWPT\Fig2_SWPT_Trap_Locations.mxd User: 19542 Date: 9/24/2019



- Project Boundary
- Southwestern Pond Turtle Trap Locations
- City of Santee/San Diego Municipal Boundary

Source: Biological Resources-ICF (2019); Imagery-SANGIS (2017)

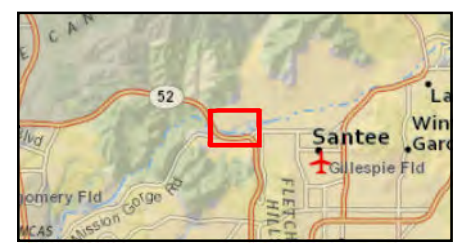
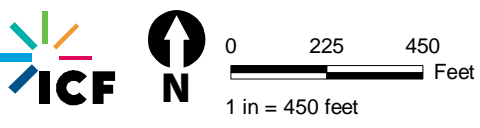


Figure 3
Southwestern Pond Turtle Trap Locations
Carlton Oaks Residential Project



Appendix A

Photo Log of Ponds and Traps

Photo 1. Pond A facing east



Photo 2. Pond A facing east



Photo 3. Pond B facing west



Photo 4. Pond C facing east



Photo 5. Trap 1



Photo 6. Trap 2



Photo 7. Trap 3



Photo 8. Trap 4





Appendix B

Photo Log of Captured Turtles

Photo 1. Red-eared sliders



Photo 2. Plastron of red-eared slider



Photo 3. Carapace of red-eared slider



Photo 4. Juvenile red-eared slider basking



Photo 5. Melanistic red-eared slider basking



Photo 6. Close-up of head of melanistic red-eared slider



Photo 7. Carapace of melanistic red-eared slider



Photo 8. Plastron of melanistic red-eared slider (note large inguinal ascute)



Photo 9. Bullfrog



Photo 10. Bluegill



Appendix G

Coastal California Gnatcatcher Survey Reports

G-1 – 2019 Coastal California Gnatcatcher Survey Report

G-2 – 2022 Coastal California Gnatcatcher Survey Report



July 30, 2019

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: 45-Day Report – Coastal California Gnatcatcher Presence/Absence Survey Results for the Carlton Oaks Golf Resort Project, City of Santee, San Diego County, California

Dear Ms. Love:

This report documents the results of focused coastal California gnatcatcher (CAGN) (*Poliioptila californica californica*) presence/absence surveys conducted by ICF in support of the proposed Carlton Oaks Country Golf Resort project (proposed project).

Location

The project site is located in the City of Santee and City of San Diego, north of CA52, south of Carlton Oaks Drive, and between West Hills Parkway to the west and Carlton Hills Parkway to the east (Figure 1). The survey area is approximately 7 acres.

The Project site is depicted within an unsectioned portion of Township 15 South, Range 11 West, Section of the La Mesa, California, U.S. Geological Survey 7.5-minute quadrangle map (Figure 2).

Project Description

The proposed project would include a redesign of the existing Carlton Oaks golf course to allow for the development of two gated residential neighborhoods, a hotel and clubhouse building, an improved golf course clubhouse and pro shop, golf driving range and learning center, and a public trailhead. The Residential West development, located within the western portion of the site, would consist of 85 detached single-family condominium homes on a minimum 40- by 90-foot pads. The Residential North development would be located within the northeast portion of the site and would consist of 158 detached single-family condominium homes with pads measuring 47 by 70 feet (71 units and 50 by 56 feet (87 units).. The hotel and clubhouse building would consist of 27 hotel rooms and 25 condominium rooms. The ground floor and common areas would contain a banquet room and lobby, restaurant, bar, kitchen, and common and support areas. The golf course would be redesigned to accommodate the proposed residential neighborhoods and to provide an improved experience for the users of the Carlton Oaks Golf Course. The redesigned golf course would cover approximately 104 acres, but still provides 18 holes.

Survey Area

The project site is currently developed as the Carlton Oaks Golf Course. The surrounding area is generally developed with residential and commercial development to the north, east, and south of the project site. The area to the west of the project site includes open space associated with Mission Trails Regional Park. The San Diego River flows westerly along the southern boundary of the project site, providing a narrow band of riparian open space immediately east of the site, and along the southern boundary of the site.

The study area includes the project site, plus a 500-foot buffer around the project site. Developed areas make up a majority of the study area. These areas have been physically altered and include existing golf course fairways, hardscape structures, other manmade features, residences, roadways, and ornamental trees. Other parts of the golf course include scattered patches of non-native grasslands dominated by brome grasses (*Bromus* spp.) and narrow stretches of southern cottonwood-willow riparian forest dominated by Fremont cottonwood (*Populus fremontii*) associated to Sycamore Creek.

Upland habitats found primarily along the edges of the project site include eucalyptus woodland, non-native grassland, and disturbed Diegan coastal sage scrub. One narrow swath of Diegan coastal sage scrub occurs outside of the southern boundary of the project site along the shoulder of West Hills Parkway.

Areas considered to be suitable habitat for CAGN includes two small areas (less than 0.5 acre total) within the project site and two areas in the 500-foot buffer. Three of these areas were considered marginally suitable due to the high level of disturbance high cover of non-native plant species, including tree tobacco (*Nicotiana glauca*), brome grasses, and short-podded mustard (*Hirschfeldia incana*). Native vegetation and shrubs are relatively sparse in these areas. One area, the patch along West Hills Parkway, contains high quality Diegan sage scrub, though it is narrow and sandwiched between riparian habitat and a well-used roadway. This habitat is dominated by California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and black sage (*Salvia mellifera*).

Survey Methods

ICF biologist James Hickman (permit# TE-60218B-0) performed a focused survey for CAGN in all potentially suitable habitat. The survey area covered suitable habitat within the project limits and within 500 feet of the project limits. Figure 3 depicts the suitable CAGN habitat within the survey area.

Six surveys were conducted at least one week apart between 6:00 a.m. and 12:00 p.m. (Table 1). Surveys were not conducted during periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather. Methods included slowly walking through the vegetation with frequent stops to listen and play taped CAGN vocalizations. During each visit, a taped vocalization was broadcast at least once in all potential habitat at distance intervals of approximately 75 to 100 feet. All vertebrate species detected were recorded (Appendix B).

Table 1. Survey Dates, Personnel, and Weather Conditions

| Visit | Date | Time | Biologist | Conditions |
|-------|-----------|-----------|---------------|--|
| 1 | 4/6/2019 | 1030-1200 | James Hickman | 63-65°F, cloudy, winds 0-3 mph, good visibility |
| 2 | 4/19/2019 | 1045-1200 | James Hickman | 65-68°F, partly cloudy, winds 0-3 mph, good visibility |
| 3 | 4/26/2019 | 0605-0730 | James Hickman | 62-64°F, cloudy, winds 0-3 mph, good visibility |
| 4 | 5/3/2019 | 0615-0800 | James Hickman | 59-62°F, cloudy, winds 0-3 mph, good visibility |
| 5 | 5/24/2019 | 1100-1200 | James Hickman | 69-71°F, partly cloudy, winds 5-7 mph, good visibility |
| 6 | 6/24/2019 | 0630-0830 | James Hickman | 69-73°F, cloudy, winds 0-3 mph, good visibility |

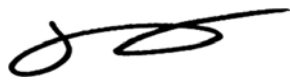
USFWS Permit: James Hickman TE-60218B-0

Results

No CAGN was detected on or adjacent to the proposed project site during any of the six visits.

If you have questions or need clarifications regarding this report, please contact me at 909-499-8230 or James.Hickman@icfi.com.

Sincerely,



James Hickman
ICF Biologist

Enclosed:

Figure 1: Regional Location Map

Figure 2: Project Location Map

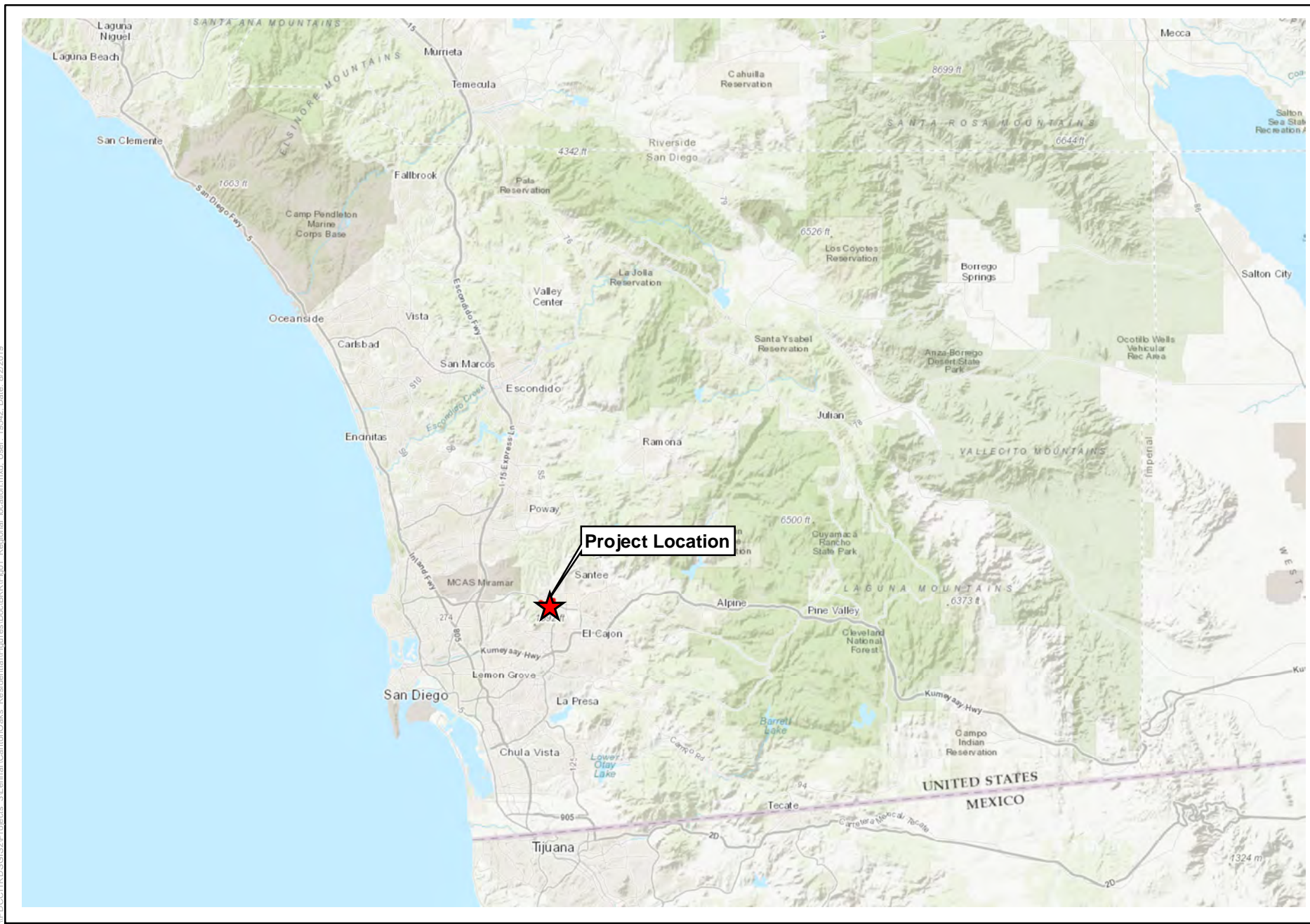
Figure 3: CAGN Survey Area Map

Appendix A: Site Photographs

Appendix B: Wildlife Species Detected

Appendix C: Certification Statement

Figures



0 6 12
Miles
1 in = 12 miles

Figure 1
Regional Location

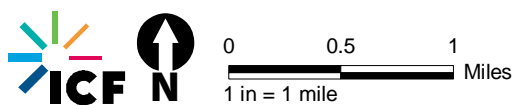
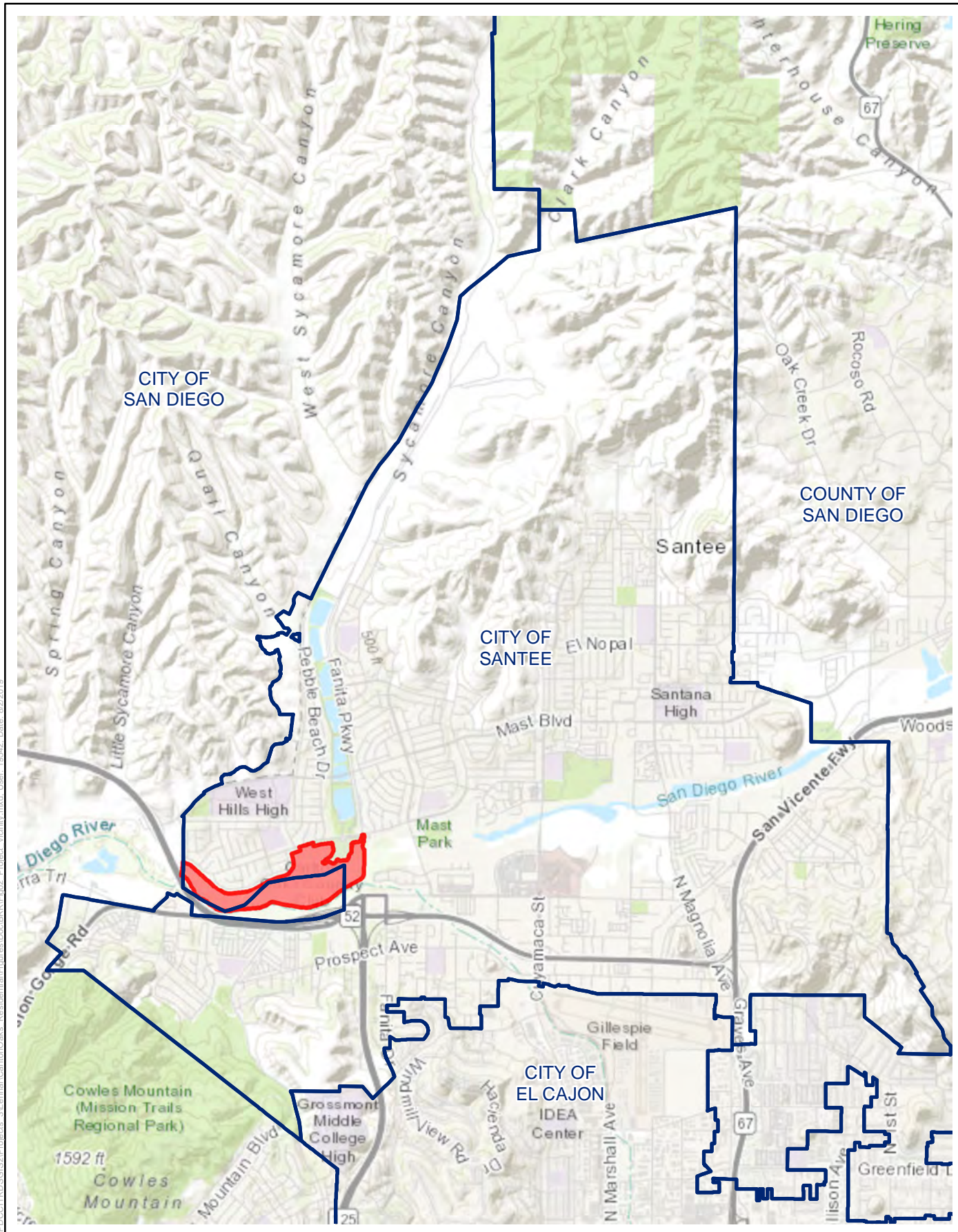


Figure 2
Project Vicinity

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- Project Boundary
- Biological Study Area
- City of Santee/San Diego Municipal Boundary
- Surveyed Suitable Habitat

Source: Biological Resources-ICF (2019); Imagery-SANGIS (2017)

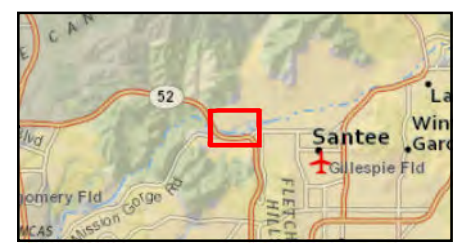
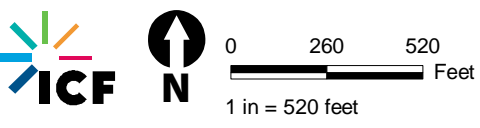


Figure 3
California Gnatcatcher Survey Area
Carlton Oaks Golf Resort Project

Appendix A

Site Photographs



Photo 1. Westerly photo of suitable coastal sage scrub within the 500-foot buffer south of the project site.



Photo 2. Southerly photo of marginal habitat dominated by *Baccharis* on the west end of the project site.



Photo 3. Westerly photo of marginal habitat within the 500-foot buffer west of the project site.

Appendix B

Wildlife Species Detected

Appendix B.**Wildlife Species Detected**

| Scientific Name | Common Name | Special Status |
|--|------------------------------|----------------|
| VERTEBRATES | | |
| Reptiles | | |
| Phrynosomatidae - Spiny Lizard Family | | |
| <i>Sceloporus occidentalis</i> | Western Fence Lizard | |
| <i>Uta stansburiana elegans</i> | Western Side-blotched Lizard | |
| Birds | | |
| Accipitridae - Hawk Family | | |
| <i>Buteo jamaicensis</i> | Red-tailed Hawk | |
| Columbidae - Pigeon and Dove Family | | |
| * <i>Columba livia</i> | Rock Pigeon | |
| <i>Zenaida macroura</i> | Mourning Dove | |
| Trochilidae - Hummingbird Family | | |
| <i>Calypte anna</i> | Anna's Hummingbird | |
| Picidae - Woodpecker Family | | |
| <i>Melanerpes formicivorus</i> | Acorn Woodpecker | |
| <i>Colaptes auratus</i> | Northern Flicker | |
| Tyrannidae - Tyrant Flycatcher Family | | |
| <i>Sayornis nigricans</i> | Black Phoebe | |
| <i>Tyrannus verticalis</i> | Western Kingbird | |
| Corvidae - Jay and Crow Family | | |
| <i>Aphelocoma californica</i> | California Scrub-Jay | |
| <i>Corvus corax</i> | Common Raven | |
| Aegithalidae - Bushtit Family | | |
| <i>Psaltiriparus minimus</i> | Bushtit | |
| Troglodytidae - Wren Family | | |
| <i>Thryomanes bewickii</i> | Bewick's Wren | |
| Mimidae - Thrasher Family | | |
| <i>Mimus polyglottos</i> | Northern Mockingbird | |

| Scientific Name | Common Name | Special Status |
|--|-----------------------|----------------|
| Parulidae - Wood-Warbler Family | | |
| <i>Setophaga coronata</i> | Yellow-rumped Warbler | |
| Emberizidae - Sparrow Family | | |
| <i>Pipilo maculatus</i> | Spotted Towhee | |
| <i>Melospiza crissalis</i> | California Towhee | |
| <i>Melospiza melodia</i> | Song Sparrow | |
| Fringillidae - Finch Family | | |
| <i>Haemorhous mexicanus</i> | House Finch | |
| <i>Carduelis psaltria</i> | Lesser Goldfinch | |
| Passeridae - Old World Sparrow Family | | |
| * <i>Passer domesticus</i> | House Sparrow | |
| Vireonidae - Vireo Family | | |
| <i>Vireo bellii pusillus</i> | Least Bell's Vireo | FE, SE |
| Mammals | | |
| Leporidae - Hare and Rabbit Family | | |
| <i>Sylvilagus audubonii</i> | Desert Cottontail | |
| Geomyidae - Pocket Gopher Family | | |
| <i>Thomomys bottae</i> | Botta's Pocket Gopher | |
| Canidae - Canid Family | | |
| <i>Canis latrans</i> | Coyote | |
| Cervidae - Cervid Family | | |
| <i>Odocoileus hemionus</i> | Mule deer | |

Legend

*= Non-native or invasive species

Special Status:

FE = Federally Endangered

SE = State Endangered

Appendix C
Certification Statement

I certify that the information contained in this survey report and attached exhibits fully and accurately represents my work. Should you have any questions regarding the methodology or findings in this report, please do not hesitate to contact James Hickman by email (James.Hickman@icfi.com) or call (909) 499-8230.

Sincerely,

A handwritten signature in black ink, appearing to be 'JH' with a stylized flourish.

James Hickman

Permit# TE-60218B-0



October 4, 2022

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: Coastal California Gnatcatcher 45-Day Summary Report for the Carlton Oaks Country Club and Resort Project, Cities of Santee and San Diego, California. Permit #TE063608-6

Dear Ms. Love:

This report documents the results of the U.S. Fish and Wildlife Service (USFWS) protocol presence/absence surveys for coastal California gnatcatcher (*Polioptila californica californica*) conducted by ICF in 2022 for the proposed Carlton Oaks Country Club and Resort project within the cities of Santee and San Diego, California (proposed project).

Project Location and Description

The project site is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway, within the municipal boundary of both the City of Santee and City of San Diego, in San Diego County, California (Figure 1). The proposed project is adjacent to State Route 52 (SR-52) and Carlton Oaks Drive. The project site is in Township 15S, Range 1W of the U.S. Geological Survey (USGS) "La Mesa" 7.5-minute quadrangle map (USGS 2018), at approximately at 32.839713°N, 117.010112 °W (Figure 2).

Lennar Corporation and Carlton Oaks Golf Course, as joint project proponents, are proposing to redevelop the existing Carlton Oaks Country Club into a golf course resort with residential accessory uses (proposed project). The proposed project would include a redesign of the existing Carlton Oaks golf course which will include the following land uses on approximately 165 acres: residential accessory uses consisting of two residential neighborhoods with open space areas; a hotel and associated cottages; an improved golf course clubhouse and pro shop, golf course and practice area, and learning center structure.

The project site is currently developed as the Carlton Oaks Golf Course. The surrounding area is generally developed with residential and commercial development to the north and east of the project site, as well as to the south on the other side of SR-52 (Figure 3). The area to the west of the project site includes open space associated with Mission Trails Regional Park. The San Diego River flows westerly along the southern boundary of the project site, providing a narrow band of riparian open space immediately east of the site, and along the southern boundary of the site. (Figure 3).

Habitat Description

Approximately 6.4 acres of suitable habitat for California gnatcatcher was surveyed within the California gnatcatcher study area, which is defined as the proposed project boundary and associated 300-foot buffer (Figure 3). Surveyable habitat, represented by various forms of coastal sage scrub, is present within the California gnatcatcher study area as three distinct patches, as shown in Figure 3. An approximately 6-acre patch is present at the western end of the survey area that includes areas west of West Hills Parkway and underneath the SR-52 bridge over the San Diego River. This patch supports stands of coast buckwheat (*Eriogonum fasciculatum*) and broom Baccharis (*Baccharis sarothroides*), with occasional California sagebrush (*Artemisia californica*), California Encelia (*Encelia californica*) and black sage (*Salvia mellifera*). An approximately 0.4-acre patch of coastal sage scrub dominated by broom Baccharis is present on the eastern shoulder of West Hills Parkway and a small, approximately 0.1-acre patch of coast buckwheat within a mat of highway iceplant (*Mesembryanthemum crystallinum*) is present near the existing clubhouse, south of Carlton Oaks Drive. Common annuals in the understory of all the patches include short-pod mustard (*Hirschfeldia incana*) and non-native grasses (*Brachypodium distachyon*, *Schismus barbatus*, *Bromus* spp.).

Methods

The USFWS *Coastal California Gnatcatcher Survey Protocol* (USFWS 1997) states that six surveys are required in areas outside of an active Natural Community Conservation Plan (NCCP) area. The majority of the suitable habitat within the project site is within the City of Santee and therefore outside of an active NCCP area, so six survey visits were conducted. The focused California gnatcatcher survey was conducted for the proposed project between May 20 and June 29, 2022 by permitted ICF biologist Brian Lohstroh (TE-063608-6). Recorded vocalizations of California gnatcatcher were broadcast throughout the suitable habitat areas, and the surveys were conducted on foot with the aid of binoculars. The survey was conducted according to the schedule provided below in Table 1.

Table 1. California Gnatcatcher 2022 Survey Dates and Conditions

| Survey | Date | Time | Temperature (°F) | Cloud Cover | Wind (MPH) Start/Stop | Survey Personnel |
|--------|---------|-----------|------------------|-------------|-----------------------|------------------|
| 1 | 5/20/22 | 0700-0900 | 57°-59° | 100% | 3-5; 3-7 | B. Lohstroh |
| 2 | 5/27/22 | 0700-0915 | 61°-61° | 100% | 0-3; 0-2 | B. Lohstroh |
| 3 | 6/3/22 | 0700-0830 | 61°-62° | 100-50% | 0-5; 0-3 | B. Lohstroh |
| 4 | 6/14/22 | 0650-0830 | 63°-63° | 100-50% | 0-4; 0-4 | B. Lohstroh |
| 5 | 6/21/22 | 0700-0900 | 64°-67° | 30-0% | 0-2; 0-3 | B. Lohstroh |
| 6 | 6/29/22 | 0645-0845 | 66°-72° | 90-0% | 0-2; 0-2 | B. Lohstroh |

Results

No California gnatcatcher were detected within or immediately adjacent to the surveyed patches within the California gnatcatcher study area. The habitat patches are generally located on restored road and freeway berms and are marginally suitable for California gnatcatcher at best. Relatively

loud and constant road and highway noise also contributes to the poor quality of the two larger westerly habitat patches. Representative photographs of the survey area and a list of wildlife species observed are attached.

Special status species detected during the California gnatcatcher surveys included least Bell's vireo (*Vireo bellii pusillus*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). Vireo observations are documented in the 2022 45-Day Report – Least Bell's Vireo Presence/ Absence Survey Results for the Carlton Oaks Golf Resort Project, Santee, California.

References

USFWS. 1997. *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol*. July 28, 1997.

USFWS. 2007. *Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (Polioptila californica californica); Final Rule*. Federal Register 72:72009-72213.

Certification

I certify that the information in this survey report fully and accurately represents my work. Please do not hesitate to contact me at (858) 750-9300 with any questions.

Sincerely,



Brian Lohstroh
Senior Biologist, ICF
brian@lohstrohbio.com
TE-063608-6

Enclosures

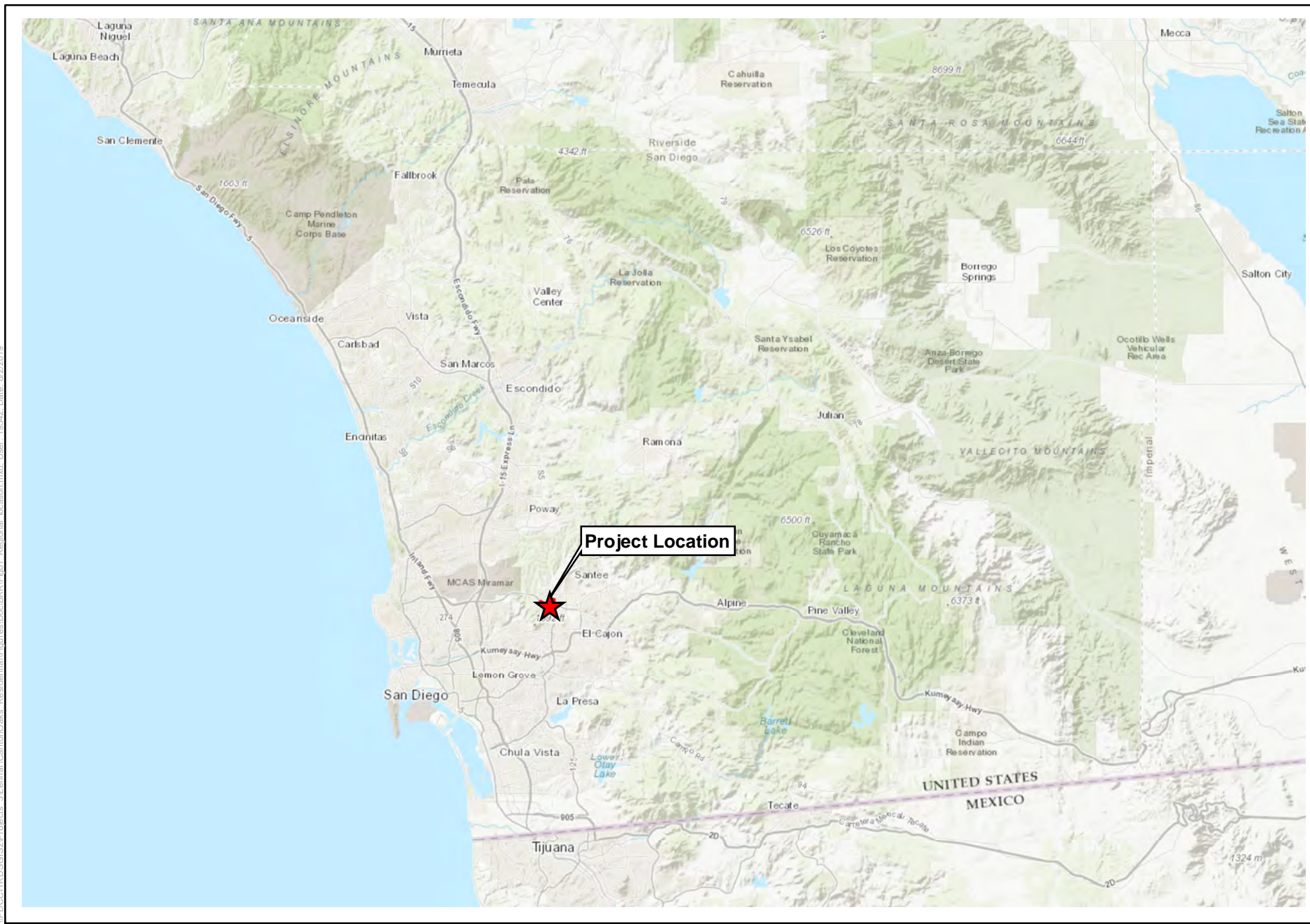
Attachment A. Figures

- 1 Regional Location
- 2 Project Vicinity
- 3 2022 California Gnatcatcher Survey Area

Attachment B. Representative Photos

Attachment C. Wildlife Species Detected

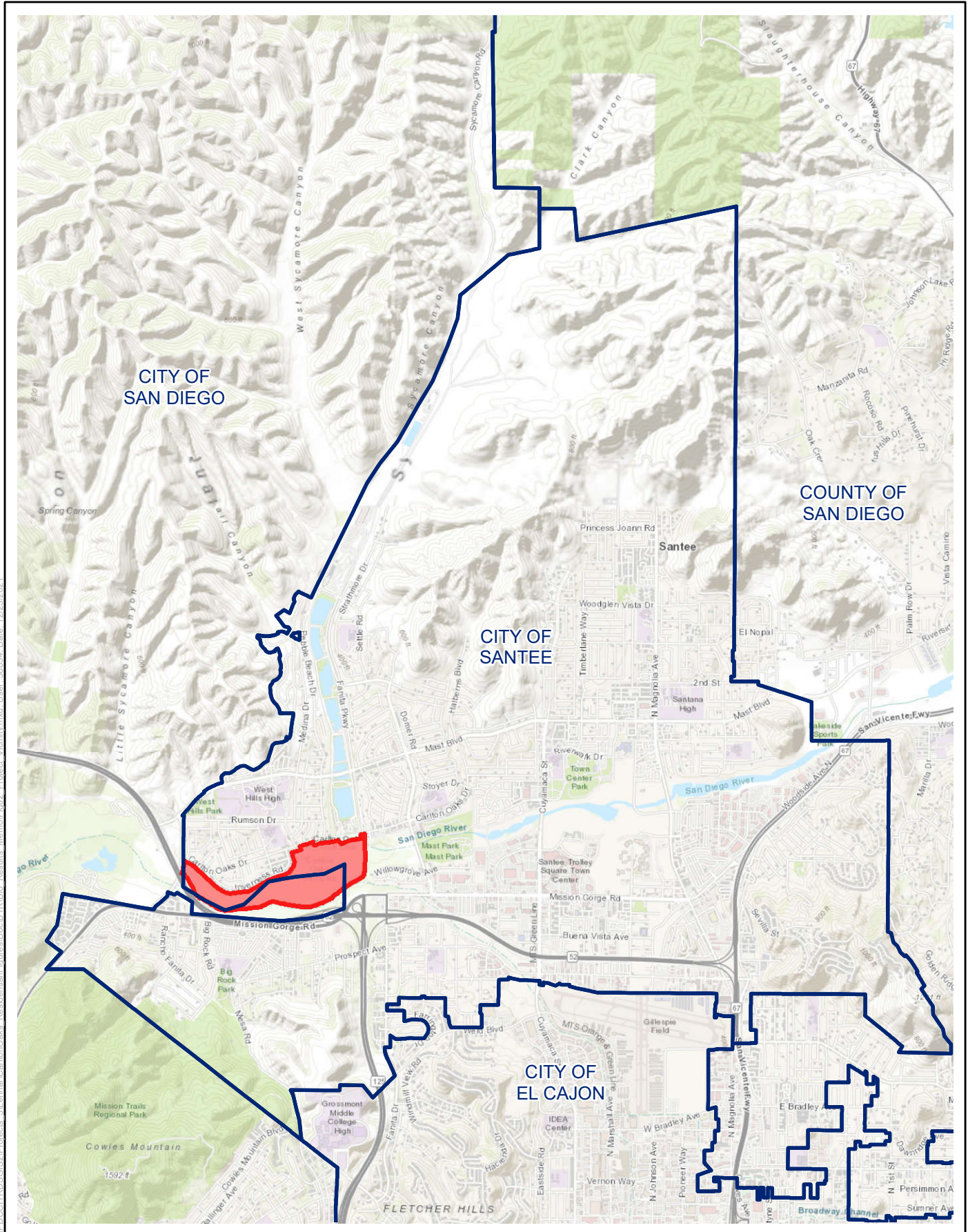
Attachment A
Figures



0 6 12
Miles
1 in = 12 miles

Figure 1
Regional Location
Carlton Oaks Country Club and Resort

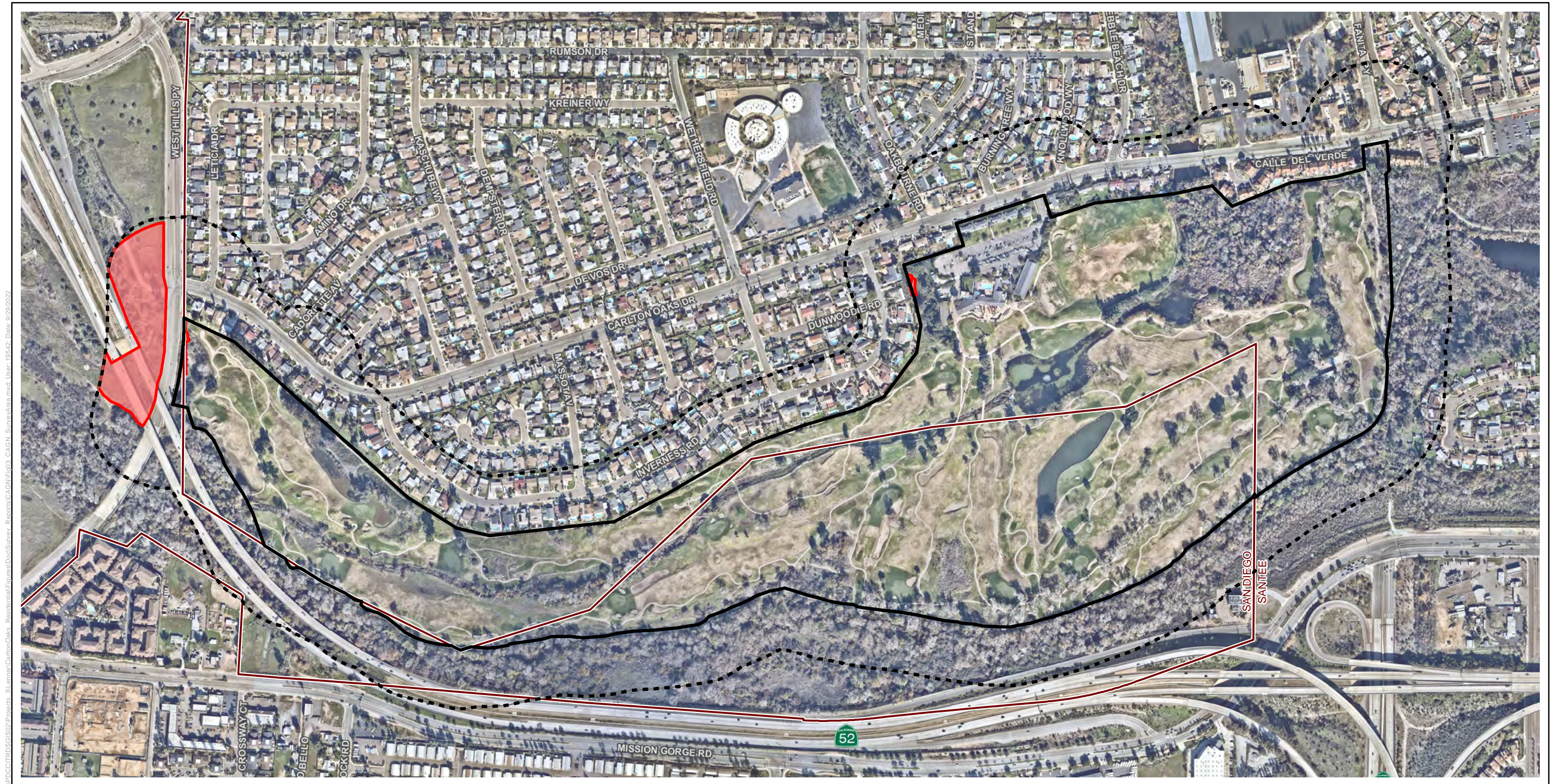
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0 0.5 1
1 in = 1 mile Miles

Figure 2
Project Vicinity
Carlton Oaks Country Club and Resort

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- Project Boundary
- Biological Study Area
- City of Santee/San Diego Municipal Boundary
- Surveyed Suitable Habitat

Source: Biological Resources-ICF (2019); Imagery-SANGIS (2020)

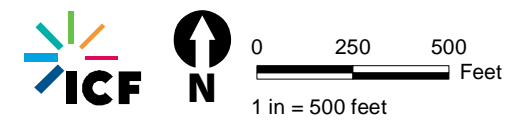


Figure 3
California Gnatcatcher Survey Area
Carlton Oaks Country Club and Resort

Attachment B
Representative Photos

Photographs

Carlton Oaks Country Club and Resort
California Gnatcatcher Surveys 2022



Photo 1. View facing south from northern edge of large habitat patch in western portion of project study area. Scattered coast buckwheat and non-native grasses are visible in foreground.



Photo 2. View facing north of Baccharis-dominated habitat patch under SR-52 bridge.

Photographs

Carlton Oaks Country Club and Resort
California Gnatcatcher Surveys 2022



Photo 3. View facing north of habitat patch on north bridge abutment for SR-52.



Photo 4. View facing southwest of Baccharis-dominated habitat patch located just east of West Hills Parkway.

Photographs

Carlton Oaks Country Club and Resort
California Gnatcatcher Surveys 2022



Photo 5. View facing northwest along Baccharis-dominated habitat patch located just east of West Hills Parkway.



Photo 6. View facing south along small coast buckwheat-dominated patch near the golf course clubhouse.

Attachment C

Wildlife Species Detected

| Common Name | Scientific Name |
|--|-----------------------------------|
| Rock Pigeon | <i>Columba livia</i> |
| Eurasian Collared-Dove* | <i>Streptopelia decaocto</i> |
| Mourning Dove | <i>Zenaida macroura</i> |
| White-throated Swift | <i>Aeronautes saxatalis</i> |
| Anna's Hummingbird | <i>Calypte anna</i> |
| Selasphorus Hummingbird | <i>Selasphorus</i> sp. |
| Great Blue Heron | <i>Ardea herodias</i> |
| Red-tailed Hawk | <i>Buteo jamaicensis</i> |
| Nuttall's Woodpecker | <i>Picoides nuttallii</i> |
| Red-crowned Parrot* | <i>Amazona viridigenalis</i> |
| Pacific-slope Flycatcher | <i>Empidonax difficilis</i> |
| Black Phoebe | <i>Sayornis nigricans</i> |
| Say's Phoebe | <i>Sayornis saya</i> |
| Ash-throated Flycatcher | <i>Myiarchus cinerascens</i> |
| Cassin's Kingbird | <i>Tyrannus vociferans</i> |
| Least Bell's Vireo (FE, SE) | <i>Vireo b. pusillus</i> |
| American Crow | <i>Corvus brachyrhynchos</i> |
| Common Raven | <i>Corvus corax</i> |
| Northern Rough-winged Swallow | <i>Stelgidopteryx serripennis</i> |
| Bushtit | <i>Psaltiriparus minimus</i> |
| House Wren | <i>Troglodytes aedon</i> |
| Bewick's Wren | <i>Thryomanes bewickii</i> |
| Wrentit | <i>Chamaea fasciata</i> |
| Northern Mockingbird | <i>Mimus polyglottos</i> |
| House Sparrow* | <i>Passer domesticus</i> |
| House Finch | <i>Haemorhous mexicanus</i> |
| Lesser Goldfinch | <i>Spinus psaltria</i> |
| Common Yellowthroat | <i>Geothlypis trichas</i> |
| Yellow Warbler (SSC) | <i>Setophaga petechia</i> |
| Yellow-breasted Chat (SSC) | <i>Icteria virens</i> |
| Spotted Towhee | <i>Pipilo maculatus</i> |
| California Towhee | <i>Melospiza crissalis</i> |
| Song Sparrow | <i>Melospiza melodia</i> |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> |
| Great-tailed Grackle | <i>Quiscalus mexicanus</i> |
| Brown-headed Cowbird | <i>Molothrus ater</i> |
| Hooded Oriole | <i>Icterus cucullatus</i> |
| FE: Federally listed as Endangered SE: CA listed as Endangered SSC: CA Species of Special Concern *Introduced Species | |

Appendix H
**Least Bell's Vireo and
Southwestern Willow Flycatcher Survey Reports**

H-1 – 2019 Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report

H-2 – 2022 Least Bell's Vireo Survey Report



August 8, 2019

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

**Subject: 45-Day Report – Least Bell’s Vireo and Southwestern Willow Flycatcher
Presence/Absence Survey Results for the Carlton Oaks Golf Resort Project,
Santee, California**

Dear Ms. Love:

This letter report documents the results of protocol presence/absence surveys for least Bell's vireo (*Vireo bellii pusillus*, LBVI) and southwestern willow flycatcher (*Empidonax traillii extimus*, SWFL) conducted by ICF between April and July 2019 in support of the proposed Carlton Oaks Golf Resort Project (proposed project).

Location

The project is located in the City of Santee and City of San Diego, San Diego County, California (Figure 1; all figures provided in Appendix A). Specifically, the project is adjacent to State Route 52 and Carlton Oaks Drive. The project site is in Township 15S, Range 1W of the U.S. Geological Survey (USGS) “La Mesa” 7.5-minute quadrangle map (USGS 2018) (Figure 2), at approximately 32.839713N, -117.010112 W. Approximately 88.7 acres of the project site is located within the City of Santee and approximately 62.5 acres is within the City of San Diego. The only component of the project located within the City of San Diego are a portion of the redesigned golf course and a lot line adjustment between the City of Santee and the City of San Diego.

Project Description

The proposed project would include a redesign of the existing Carlton Oaks golf course to allow for the development of two gated residential neighborhoods, a hotel and condominium building, a senior living facility, an improved golf course clubhouse and pro shop, golf driving range and learning center, and a public trailhead. The Trailhead at Carlton Oaks located within the western portion of the site would consist of 71 detached single-family units on a minimum 40- by 90-foot pads. The Mission at Carlton Oaks and Sycamore Trail at Carlton Oaks would be located within the northeast portion of the site and would consist of 53 detached single-family residential units with pads measuring 50 by 100 feet, and 119 small detached cluster-style residential units. The senior living facility in the northeastern portion of the site would consist of 88 individual units. The hotel

and condominium building would be a five-story building with 126 hotel rooms and 42 condominium units. The ground floor and common areas would contain a banquet room and lobby, restaurant, bar, kitchen, and common and support areas. The golf course would be redesigned to accommodate the proposed residential neighborhoods and to provide an improved experience for the users of the Carlton Oaks Country Club. The redesigned golf course would cover approximately 104 acres, but still provides 18 holes.

Methods

Prior to surveys, potentially suitable habitat for least Bell's vireo and southwestern willow flycatcher was determined based on vegetation mapping completed for the project. The following mapped vegetation community types were included in the protocol surveys for both species: mule-fat scrub, southern riparian scrub, and southern cottonwood-willow riparian forest. The survey area includes these vegetation communities within the project footprint and a 100-foot buffer. Existing conditions found within the survey area generally consist of the existing golf course and riparian habitat associated with the San Diego River/Forester Creek and Sycamore Canyon Creek.

Representative photographs of the survey area are provided in Appendix B.

Least Bell's Vireo

Surveys were conducted following the guidance in the *Least Bell's Vireo Survey Guidelines* (USFWS 2001). Surveys were conducted by avian biologists familiar with the song, calls, scolds, and plumage characteristics of adult and juvenile LBVI. ICF biologist Ryan Layden conducted eight presence/absence surveys for least Bell's vireo within the survey area between April 16 and July 22, 2019 (Table 1). Surveys were conducted in morning hours when vireos are most active and included frequent stops to look for individuals and listen for vocalizations. All vireo detections (vocalization points, areas used for foraging, etc.) were recorded to estimate location and extent of territories.

Southwestern Willow Flycatcher

Five protocol southwestern willow flycatcher surveys were conducted following the survey methodology between May 25 and July 13, 2018 (Sogge et al. 2010, USFWS 2000) (Table 1). ICF biologist, Brian Lohstroh (TE-063608-6), conducted one survey within the first survey period (May 15–31), two within the second survey period (June 1–24), and two within the third survey period (June 22–July 17). Each survey was conducted at least 7 days apart and was concluded before 10 a.m. Surveys included thorough coverage of all potentially suitable habitats, which consisted of slowly walking with frequent stops to look, listen, and play recordings of flycatcher vocalizations. Recordings were played at regular intervals and only while stationary and after first looking and listening for any potential flycatchers. Southwestern willow flycatcher surveys were not conducted concurrently with least Bell's vireo surveys by the same biologist; a second biologist conducted the vireo portion on given southwestern willow flycatcher survey dates. For all species, surveys were not conducted during inclement weather such as extreme hot or cold temperatures, fog, high winds, or rain.

Table 1. Survey Dates, Personnel, and Weather Conditions

| Survey Date | Survey Type and Number | Start-End Time | Temperature (°F) | Wind Speed (mph) | Cloud Cover (%) | Surveyors |
|--------------------|-------------------------------|-----------------------|-------------------------|-------------------------|------------------------|--------------------------|
| 4/16/19 | Vireo 1 | 0605–1045 | 57–60 | 0–3; 0–5 | 100–60 | R. Layden |
| 4/30/19 | Vireo 2A | 0545–0830 | 57–57 | 0–3; 0–3 | 100 | R. Layden |
| 5/6/19 | Vireo 2B | 0600–0900 | 59–61 | 0–3; 3–6 | 0–0 | R. Layden |
| 5/17/19 | Vireo 3 | 0600–1100 | 59–65 | 0–3; 3–6 | 10–0 | R. Layden |
| 5/29/19 | Vireo 4/ SWFL 1 | 0600–1005 | 56–66 | 0–3; 0–3 | 0–0 | R. Layden B. Lohstroh |
| 6/10/19 | Vireo 5/ SWFL 2 | 0530–1000 | 61–72 | 0–3; 0–3 | 0–0 | R. Layden B. Lohstroh |
| 6/24/19 | Vireo 6/ SWFL 3 | 0530–1000 | 63–67 | 0–3; 0–3 | 100–90 | R. Layden B. Lohstroh |
| 7/2/19 | SWFL 4 | 0530–0945 | 63–81 | 0–2; 0–2 | 0–0 | B. Lohstroh |
| 7/8/19 | Vireo 7/ SWFL 5 | 0600–1000 | 63–69 | 0–3; 0–3 | 100–90 | R. Layden B. Lohstroh |
| 7/22/19 | Vireo 8 | 0615–1030 | 68–74 | 0–0; 0–3 | 90–20 | R. Layden |

Results

In conjunction with the protocol surveys, ICF biologists noted all other wildlife species detected during the surveys. A total of 55 bird species were detected. A complete list of wildlife species is presented in Appendix C: Wildlife Species Detected.

Least Bell's Vireo

Six least Bell's vireo territories (LBVI 01–LBVI 06) were detected during the 2019 surveys (Table 2). These territories included two confirmed pairs, two potentially unpaired male individuals, and two transient male vireos. Territory LBVI 01 contained a male that was detected four times throughout the surveys, mostly south of the San Diego River. No incidental observations of female or young occurred at this location; note, however, that the survey methodology is focused on detection of singing males, and lack of observations should not be interpreted as absence. Territory LBVI 02 contained a male LBVI that was detected within the project boundary during seven of the survey visits. A fledgling was detected with the LBVI 02 territory on the sixth and seventh survey, indicating that a female was present during 2019 and breeding was successful. Territory LBVI 03 was defined by a pair detected during five of the surveys. No young were detected, and breeding success is unknown for this pair. LBVI 04 contained a male that was detected during five survey visits. No female or young were detected at LBVI 04. Locations LBVI 05 and LBVI 06 were defined by transient males that were detected twice during Vireo survey #6 and SWFL survey #4.

Table 2. Summary of Least Bell's Vireo Survey Results

| Survey Date | Survey Type and Number | # Males | # Females | # Juveniles | # Territories | Comments |
|--------------------|-------------------------------|----------------|------------------|--------------------|----------------------|--|
| 4/16/19 | Vireo 1 | 2 | 0 | 0 | 2 | LBVI 01 heard singing in riparian area associated with San Diego River. Potentially located south of survey area. LBVI 02 heard singing and observed flying high and moving frequently within southern-willow riparian forest within the project boundary. |
| 4/30/19 | Vireo 2A | 2 | 0 | 0 | 2 | LBVI 01 heard singing south of San Diego River; no visual. LBVI 02 observed moving frequently and singing south of the project boundary within 100-foot buffer. Steady rain began to fall so survey was postponed. |
| 5/6/19 | Vireo 2B | 0 | 0 | 0 | 0 | No LBVI detected (survey area included what was not completed on survey 2A). |
| 5/17/19 | Vireo 3 | 4 | 1 | 0 | 4 | LBVI 03 (pair) observed in riparian area north of project boundary. Female followed male as he sang from tree to tree. LBVI 04 heard singing within project buffer; no visual. LBVI 01 heard singing south the survey area, across San Diego River. LBVI 02 observed on north end of riparian area within project boundary. Moved frequently, mostly high in trees. |
| 5/29/19 | Vireo 4 | 3 | 0 | 0 | 3 | LBVI 03 male heard singing in project buffer, west of boundary. No visual. LBVI 04 heard singing. LBVI 02 male seen and heard moving frequently; no food or nesting material observed. |
| 6/10/19 | Vireo 5 | 4 | 0 | 0 | 4 | LBVI 03 male heard west of project boundary singing high in willows. LBVI 04 heard singing south of survey area. LBVI 01 observed singing high in canopy; flew south across San Diego River beyond survey area. LBVI 02 briefly heard singing on east of territory then went quiet. |
| 6/24/19 | Vireo 6 | 5 | 0 | 1 | 5 | LBVI 03 observed and heard singing high in canopy. LBVI 05 observed and heard singing and moving frequently within survey area east of project boundary. LBVI 04 heard singing south of survey area. LBVI 02 observed and heard singing. Heard fledgling contact calls following male. LBVI 06 male observed between San Diego River and project boundary, singing frequently. |

| Survey Date | Survey Type and Number | # Males | # Females | # Juveniles | # Territories | Comments |
|-------------|------------------------|---------|-----------|-------------|---------------|---|
| 7/2/19 | SWFL 5 | 6 | 1 | 1 | 6 | LBVI 03 observed pair high in canopy, female following male. LBVI 05 heard singing; no visual. LBVI 04 male heard singing south of survey area. LBVI 01 observed foraging. LBVI 02 male heard and fledgling calling. LBVI 06 heard singing. |
| 7/8/19 | Vireo 7 | 1 | 0 | 0 | 1 | LBVI 02 heard singing, moving frequently within canopy. |
| 7/22/19 | Vireo 8 | 0 | 0 | 0 | 0 | No LBVI detected |

Southwestern Willow Flycatcher

No SWFL or migrant willow flycatchers (*Empidonax traillii*) were detected during the 2019 surveys. A search of the California Natural Diversity Database indicated that no SWFL records occur within a 5-mile radius of the project (CDFW 2019). The southern cottonwood-willow riparian forest associated with the San Diego River and Forester Creek supports some known SWFL habitat constituents and is moderately suitable habitat for this species. SWFL typically prefer habitat where surface water is present or soil moisture is high enough to maintain the appropriate vegetation characteristics (Sogge et al. 2010) and this was the case during the SWFL surveys. There are also portions of the survey area that support the canopy structure and herbaceous understory preferred by the species. However, much of the riparian habitat is dominated by species associated with marginal SWFL habitat, such as cottonwoods and the nonnative shamel ash (*Fraxinus uhdei*). In addition, the San Diego River is channelized with berms along the golf course boundary, preventing the riparian habitat to develop naturally. A wider aerial view indicates that besides the golf course, the riparian habitat within the project area is primarily surrounded by development, including freeways that produce a significant amount of noise. Commuter traffic noise is especially loud along the western portion of the survey area.

Table 3. Southwestern Willow Flycatcher Survey Results

| Survey Date | Survey Type and Number | # Males | # Females | # Juveniles | # Territories | Comments |
|-------------|------------------------|---------|-----------|-------------|---------------|-------------------|
| 5/29/19 | SWFL 1 | 0 | 0 | 0 | 0 | No SWFL detected. |
| 6/10/19 | SWFL 2 | 0 | 0 | 0 | 0 | No SWFL detected. |
| 6/24/19 | SWFL 3 | 0 | 0 | 0 | 0 | No SWFL detected. |
| 7/2/19 | SWFL 4 | 0 | 0 | 0 | 0 | No SWFL detected. |
| 7/8/19 | SWFL 5 | 0 | 0 | 0 | 0 | No SWFL detected. |

Other Special-Status Bird Species

Four additional special-status bird species were observed during surveys. Yellow warbler (*Setophaga petechia*) and yellow-breasted chat (*Icteria virens*) are California Species of Special Concern (SSC) and were detected in the survey area. Cooper's hawk (*Accipiter cooperii*) and double-breasted cormorant (*Phalacrocorax auritus*) are California Department of Fish and Wildlife (CDFW) Watch List (WL) species and were also detected during surveys. Suitable nesting and foraging habitat for these species occur throughout the survey area. A double-breasted cormorant nesting colony was detected in a eucalyptus tree (*Eucalyptus* sp.) in the center of the golf course adjacent to a large pond.

References

- California Department of Fish and Wildlife (CDFW). 2019. *California Natural Diversity Database*. Available: <http://www.dfg.ca.gov/biogeodata/cnddb/>.
- Sogge, M. K., D. Ahlers, and S. J. Sferra. 2010. *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher*. U.S. Geological Survey Techniques and Methods 2A-10, 38 pp.
- U.S. Fish and Wildlife Service (USFWS). 1995. Final Rule: Endangered and Threatened Wildlife and Plants; Final Rule: Determining Endangered Status for the Southwestern Willow Flycatcher. *Federal Register* 60: 10693–10715.
- . 2000. *Southwestern Willow Flycatcher Protocol Revision 2000*.
- . 2001. *Least Bell's Vireo Survey Guidelines*. Report from Carlsbad, California, Field Office. January 19. 3 pp.

Certification

We certify that the information in this survey report fully represents my work. Please do not hesitate to contact us with any questions.

Sincerely,



Brian Lohstroh (TE-063608-6)
(858) 750-9300
brian@lohstrohbio.com



Ryan Layden
(714) 501-0726
ryan.layden@icf.com

Enclosures

Appendix A: Figures

Figure 1: Regional Vicinity

Figure 2: Project Site

Figure 3: Survey Results

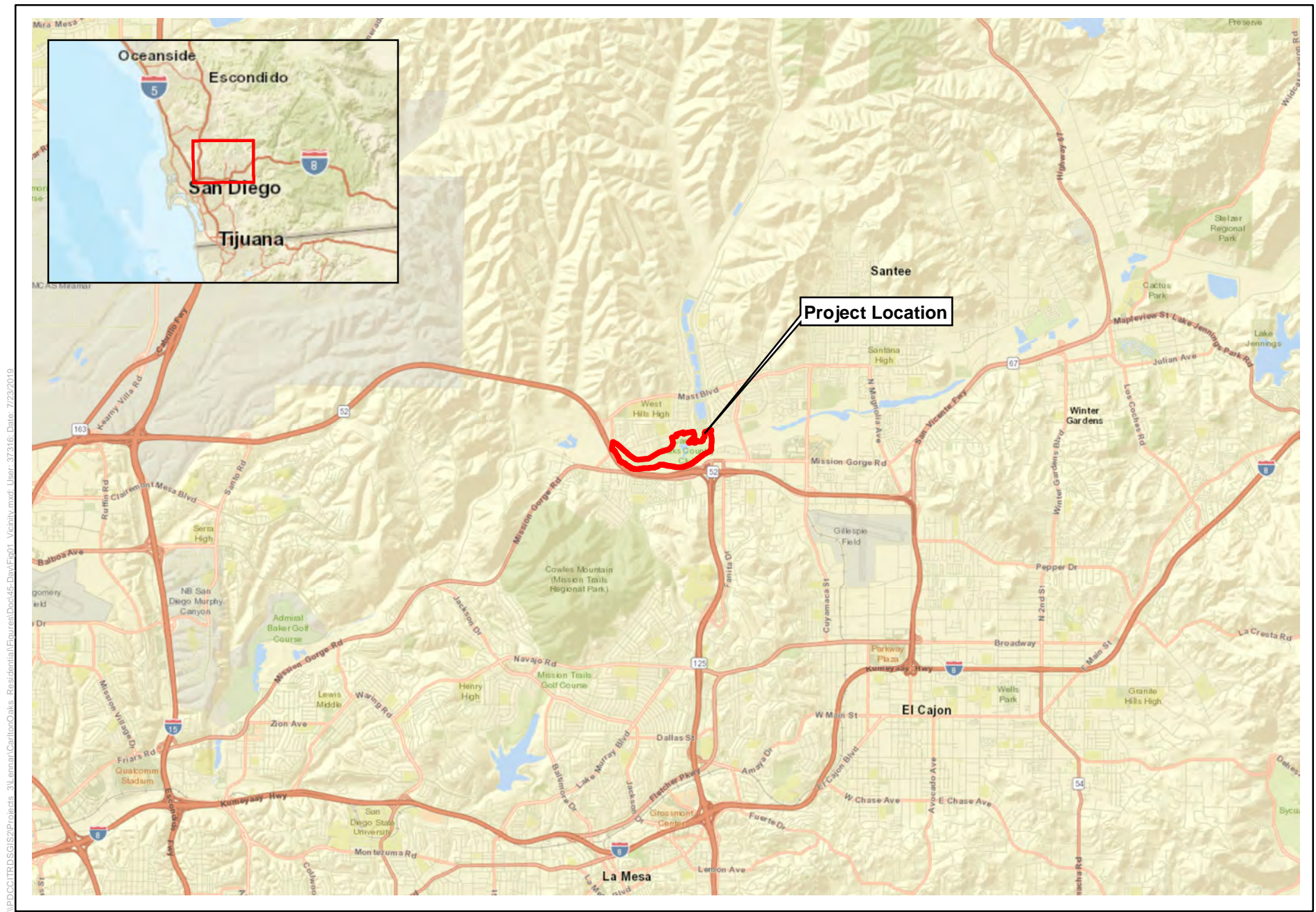
Appendix B: Representative Photographs

Appendix C: Wildlife Species Detected

Appendix D: WIFL Form

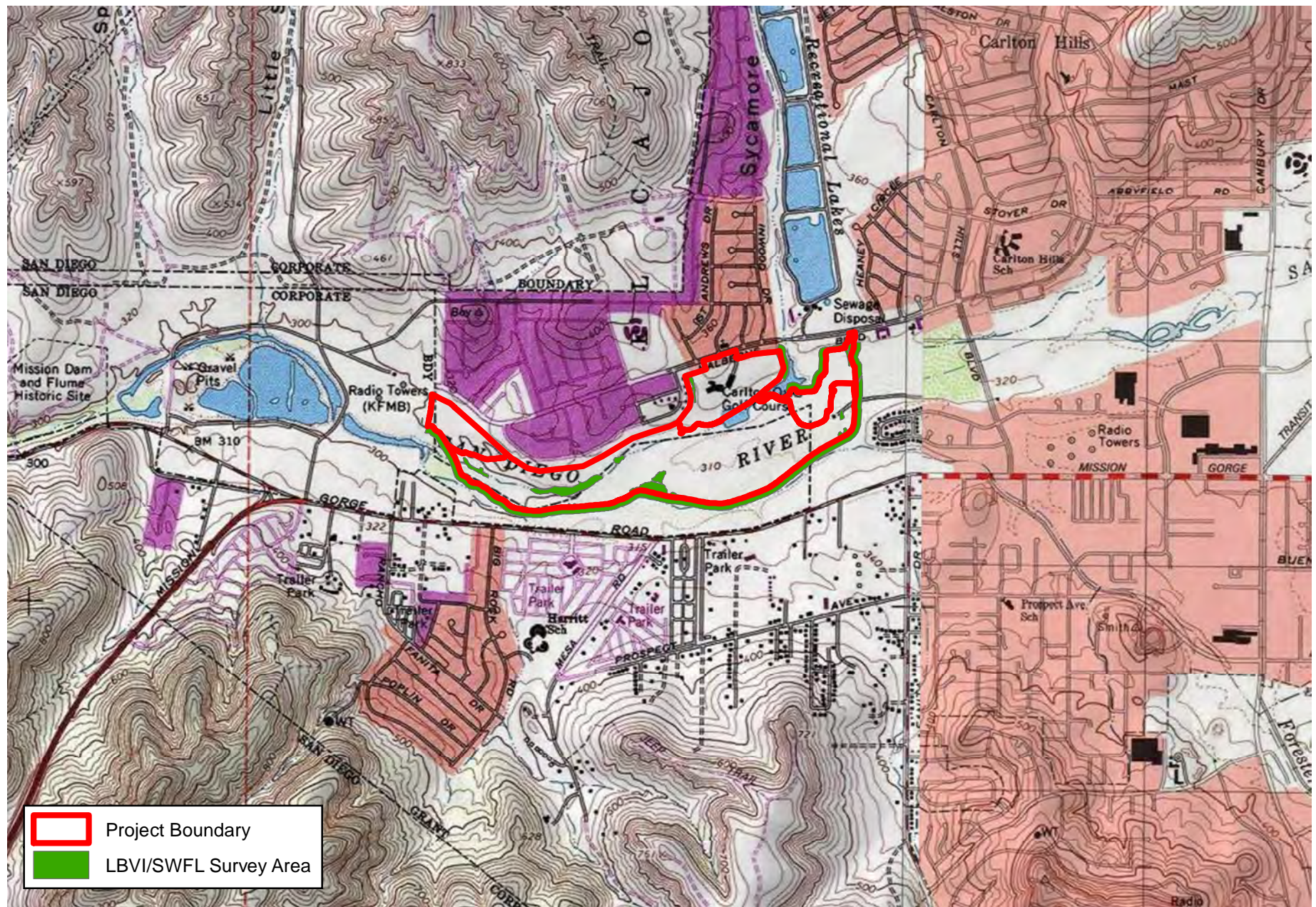


Appendix A Figures



0 1 2
Miles
1:100,000

Figure 1
Regional Location
Carlton Oaks Project



0 1,000 2,000
Feet
1:24,000
Source: Imagery-USGS
La Mesa Quad (2019)

Figure 2
Project Vicinity
Carlton Oaks Project

V:\POC\ITROSGIS\2\Projects_3\1Lennar\CarltonOaks_Residential\Figures\Doc\Survey_Reports\LBVI\LBVI03_LBVI_SWFL_Results.mxd User: 19542 Date: 8/13/2019



Project Boundary

Biological Study Area

City of Santee/San Diego Municipal Boundary

Least Bell's Vireo Critical Habitat

Survey Area

Brown-headed cowbird (*Molothrus ater*)

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

Male

Male with fledgling

Pair

LBVI# represents territory number - see report for details

Source: Biological Resources-ICF (2019); Imagery-SANGIS (2017)

N

0 225 450

Feet

1 in = 450 feet

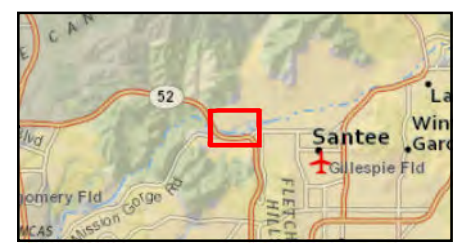


Figure 3
2019 Least Bell's Vireo/
Southwestern Willow Flycatcher Survey Results
Carlton Oaks Golf Resort Project



Appendix B

Representative Photos

Appendix B Representative Photos



Photo 1

Date: 7/22/2019

Direction: Northwest

Comment: View of LBVI 03 territory within southern willow cottonwood riparian forest.



Photo 2

Date: 7/22/2019

Direction: Southeast

Comment: View of northern end of BVI 02 territory.



Photo 3

Date: 7/22/2019

Direction: South

Comment: View of riparian habitat associated with the San Diego River/Forester Creek located south of Project survey area.



Photo 4

Date: 7/22/2019

Direction: East

Comment: View of golf course between the San Diego River/Forester Creek and Sycamore Canyon Creek.



Appendix C

Wildlife Species Detected

Appendix C. Wildlife Species Detected

| Scientific Name | Common Name | Special Status |
|-----------------------------------|---------------------------|----------------|
| VERTEBRATES | | |
| Amphibians | | |
| <i>*Lithobates catesbeianus</i> | American Bullfrog | |
| Turtles | | |
| <i>*Trachemys scripta elegans</i> | Red-eared Slider | |
| Birds | | |
| <i>Anas platyrhynchos</i> | Mallard | |
| <i>Podilymbus podiceps</i> | Pied-billed Grebe | |
| <i>Phalacrocorax auritus</i> | Double-crested Cormorant | |
| <i>Ardea herodias</i> | Great Blue Heron | |
| <i>Egretta thula</i> | Snowy Egret | |
| <i>Butorides virescens</i> | Green Heron | |
| <i>Nycticorax nycticorax</i> | Black-crowned Night-Heron | |
| <i>Accipiter cooperii</i> | Cooper's Hawk | |
| <i>Buteo lineatus</i> | Red-shouldered Hawk | |
| <i>Buteo jamaicensis</i> | Red-tailed Hawk | |
| <i>Fulica americana</i> | American Coot | |
| <i>*Columba livia</i> | Rock Pigeon | |
| <i>*Streptopelia decaocto</i> | Eurasian Collared-Dove | |
| <i>Zenaida macroura</i> | Mourning Dove | |
| <i>Aeronautes saxatalis</i> | White-throated Swift | |
| <i>Archilochus alexandri</i> | Black-chinned Hummingbird | |
| <i>Calypte anna</i> | Anna's Hummingbird | |
| <i>Picoides nuttallii</i> | Nuttall's Woodpecker | |
| <i>Picoides pubescens</i> | Downy Woodpecker | |
| <i>*Amazona viridigenalis</i> | Red-crowned Parrot | |
| <i>Empidonax difficilis</i> | Pacific-slope Flycatcher | |
| <i>Sayornis nigricans</i> | Black Phoebe | |
| <i>Sayornis saya</i> | Say's Phoebe | |
| <i>Myiarchus cinerascens</i> | Ash-throated Flycatcher | |
| <i>Tyrannus vociferans</i> | Cassin's Kingbird | |
| <i>Tyrannus verticalis</i> | Western Kingbird | |

| Scientific Name | Common Name | Special Status |
|-----------------------------------|-------------------------------|----------------|
| <i>Vireo bellii pusillus</i> | Least Bell's Vireo | FE, SE |
| <i>Vireo huttoni</i> | Hutton's Vireo | |
| <i>Aphelocoma californica</i> | Western Scrub-Jay | |
| <i>Corvus brachyrhynchos</i> | American Crow | |
| <i>Tachycineta bicolor</i> | Tree Swallow | |
| <i>Stelgidopteryx serripennis</i> | Northern Rough-winged Swallow | |
| <i>Petrochelidon pyrrhonota</i> | Cliff Swallow | |
| <i>Psaltirparus minimus</i> | Bushtit | |
| <i>Sitta carolinensis</i> | White-breasted Nuthatch | |
| <i>Troglodytes aedon</i> | House Wren | |
| <i>Sialia mexicana</i> | Western Bluebird | |
| <i>Turdus migratorius</i> | American Robin | |
| * <i>Sturnus vulgaris</i> | European Starling | |
| <i>Mniotilta varia</i> | Black-and-white Warbler | |
| <i>Oreothypis celata</i> | Orange-crowned Warbler | |
| <i>Geothlypis trichas</i> | Common Yellowthroat | |
| <i>Setophaga petechia</i> | Yellow Warbler | SSC |
| <i>Icteria virens</i> | Yellow-breasted Chat | SSC |
| <i>Pipilo maculatus</i> | Spotted Towhee | |
| <i>Melospiza melodia</i> | Song Sparrow | |
| <i>Piranga ludoviciana</i> | Western Tanager | |
| <i>Pheucticus melanocephalus</i> | Black-headed Grosbeak | |
| <i>Agelaius phoeniceus</i> | Red-winged Blackbird | |
| <i>Quiscalus mexicanus</i> | Great-tailed Grackle | |
| * <i>Molothrus ater</i> | Brown-headed Cowbird | |
| <i>Icterus cucullatus</i> | Hooded Oriole | |
| <i>Haemorhous mexicanus</i> | House Finch | |
| <i>Spinus psaltria</i> | Lesser Goldfinch | |
| * <i>Lonchura punctulata</i> | Nutmeg Mannikin | |
| Mammals | | |
| <i>Ostospermophilus beecheyi</i> | California Ground Squirrel | |

| Scientific Name | Common Name | Special Status |
|--|-------------|----------------|
| Legend | | |
| *= Non-native or invasive species | | |
| Special Status: | | |
| Federal: | | |
| FE = Endangered | | |
| FT = Threatened | | |
| State: | | |
| SE = Endangered | | |
| ST =Threatened | | |
| SSC= California Species of Special Concern | | |
| CFP = California Fully Protected Species | | |



Appendix D WIFL Form

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

Site Name Carlton Oaks Golf Course State CA County San Diego
 USGS Quad Name La Mesa Elevation 95 (meters)
 Creek, River, Wetland, or Lake Name San Diego River
Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes ☒ No ☐

Survey Coordinates: Start: E 499686 N 3633985 UTM Datum WGS84 (See instructions)
 Stop: E 497809 N 3633591 UTM Zone 11 S

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

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

| Survey # | Date (m/d/y) | Number of Adult WIFLs | Estimated Number of Pairs | Estimated Number of Territories | Nest(s) Found? Y or N If Yes, number of nests | Comments (e.g., bird behavior; evidence of pairs or breeding; potential threats [livestock, cowbirds, <i>Diorhabda</i> spp.]). If <i>Diorhabda</i> found, contact USFWS and State WIFL coordinator | GPS Coordinates for WIFL Detections (this is an optional column for documenting individuals, pairs, or groups of birds found on each survey). Include additional sheets if necessary. | | | |
|--|----------------|-----------------------|---------------------------|---------------------------------|--|--|--|-----|-------|-------|
| Observer(s) (Full Name) | Survey time | | | | | | # Birds | Sex | UTM E | UTM N |
| Survey # 1 Observer(s) B. Lohstroh | Date 5/29/19 | 0 | 0 | 0 | N | 2 BHCO detected | | | | |
| | Start 0600 | | | | | | | | | |
| | Stop 1000 | | | | | | | | | |
| | Total hrs 4 | | | | | | | | | |
| | | | | | | | | | | |
| Survey # 2 Observer(s) B. Lohstroh | Date 6/10/19 | 0 | 0 | 0 | N | 6 BHCO detected | | | | |
| | Start 0530 | | | | | | | | | |
| | Stop 1000 | | | | | | | | | |
| | Total hrs 4.5 | | | | | | | | | |
| | | | | | | | | | | |
| Survey # 3 Observer(s) B. Lohstroh | Date 6/24/19 | 0 | 0 | 0 | N | 1 BHCO detected | | | | |
| | Start 0530 | | | | | | | | | |
| | Stop 1000 | | | | | | | | | |
| | Total hrs 4.5 | | | | | | | | | |
| | | | | | | | | | | |
| Survey # 4 Observer(s) B. Lohstroh | Date 7/2/19 | 0 | 0 | 0 | N | 7 BHCO detected | | | | |
| | Start 0530 | | | | | | | | | |
| | Stop 0945 | | | | | | | | | |
| | Total hrs 4.25 | | | | | | | | | |
| | | | | | | | | | | |
| Survey # 5 Observer(s) B. Lohstroh | Date 7/8/19 | 0 | 0 | 0 | N | 7 BHCO detected | | | | |
| | Start 0615 | | | | | | | | | |
| | Stop 0950 | | | | | | | | | |
| | Total hrs 3.58 | | | | | | | | | |
| | | | | | | | | | | |
| Overall Site Summary Totals do not equal the sum of each column. Include only resident adults. Do not include migrants, nestlings, and fledglings. Be careful not to double count individuals. Total Survey Hrs 20.83 | | Total Adult Residents | Total Pairs | Total Territories | Total Nests | Were any Willow Flycatchers color-banded? Yes ___ No ___ If yes, report color combination(s) in the comments section on back of form and report to USFWS. | | | | |
| | | 0 | 0 | 0 | 0 | | | | | |

Reporting Individual Brian Lohstroh Date Report Completed _____
 US Fish and Wildlife Service Permit # TE-063608-6 State Wildlife Agency Permit # SC-4230
Submit form to USFWS and State Wildlife Agency by September 1st. Retain a copy for your records.

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

Reporting Individual Brian Lohstroh Phone # (858) 750-9300
Affiliation ICF International E-mail brian@lohstrohbio.com
Site Name Carlton Oaks Golf Course Date Report Completed _____

Was this site surveyed in a previous year? Yes ___ No ___ Unknown X

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

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

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

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

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

Name of Management Entity or Owner (e.g., Tonto National Forest) Lennar Homes/Carlton Oaks Golf Course

Length of area surveyed: 2.6 (km)

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

___ Native broadleaf plants (entirely or almost entirely, > 90% native)

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

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

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

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

Populus freemontii, *Salix gooddingii*, *Fraxinus uhdei*

Average height of canopy (Do not include a range): 12 (meters)

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

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

River channelized with a large berm along golf course and bound by highway on other side (SR-52/SR-125 interchange).
Freeway noise higher along western half of survey area.

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

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

Attach additional sheets if necessary



September 23, 2022

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: 45-Day Report – Least Bell’s Vireo Presence/Absence Survey Results for the Carlton Oaks Country and Club Resort Project, Santee, California

Dear Ms. Love:

This letter report documents the results of protocol presence/absence surveys for least Bell's vireo (*Vireo bellii pusillus*) conducted by ICF between May and July 2022 in support of the proposed Carlton Oaks Country Club and Resort Project (proposed project).

Location

The project site is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway, within the municipal boundary of both the City of Santee and City of San Diego, in San Diego County, California (Figure 1). The proposed project is adjacent to State Route 52 (SR-52) and Carlton Oaks Drive. The project site is in Township 15S, Range 1W of the U.S. Geological Survey (USGS) “La Mesa” 7.5-minute quadrangle map (USGS 2018), at approximately at 32.839713°N, 117.010112 °W (Figure 2).

Project Description

Lennar Corporation and Carlton Oaks Golf Course, as joint project proponents, are proposing to redevelop the existing Carlton Oaks Country Club into a golf course resort with residential accessory uses (proposed project). The proposed project would include a redesign of the existing Carlton Oaks golf course which will include the following on approximately 165 acres: residential accessory uses consisting of two residential neighborhoods with open space areas; a hotel and associated cottages; an improved golf course clubhouse and pro shop, golf course and practice area, and learning center structure.

The project site is currently developed as the Carlton Oaks Golf Course. The surrounding area is generally developed with residential and commercial development to the north and east of the project site, as well as to the south on the other side of SR-52 (Figure 3). The area to the west of the project site includes open space associated with Mission Trails Regional Park. The San Diego River flows westerly along the southern boundary of the project site, providing a narrow band of riparian open space immediately east of the site and along the southern boundary of the site. (Figure 3

Methods

Protocol-level surveys were previously conducted in suitable habitat within the project boundary and 100-foot buffer in 2019 (ICF 2019). These surveys determined that the San Diego River to the south of the golf course and the riparian area in the northeastern side of the proposed project were occupied by least Bell's vireo during the breeding season.

The 2022 survey update included suitable habitat previously surveyed in 2019, excluding the San Diego River south of the golf course. San Diego River was excluded from the survey as CNDDDB data (CDFW 2022) and the 2019 survey results show the San Diego River to be consistently occupied by least Bell's vireo and therefore the San Diego River is considered occupied habitat. The Project does not propose any direct impacts within the San Diego River.

The project proposes impacts to riparian habitat on the northeastern side of the proposed project (associated with an emergency access route to the project site) and the habitat in the north-central associated with a storm-drain outfall. The remainder of the potentially suitable habitat would not be directly impacted by the proposed project. Because of the City of Santee requirements for 3:1 mitigation of both occupied and unoccupied riparian habitat, and the widespread occupancy of this species, only 5 surveys (instead of 8) were conducted during this update in 2022.

The following mapped vegetation community types were included in the 2022 survey: mule-fat scrub, nonnative riparian, southern riparian scrub, and southern cottonwood-willow riparian forest. Five surveys (versus eight) were conducted within the 2022 survey area, but otherwise followed the methodology in the U.S. Fish and Wildlife Service's (USFWS) *Least Bell's Vireo Survey Guidelines* (USFWS 2001). Surveys were conducted by avian biologists familiar with the song, calls, scolds, and plumage characteristics of adult and juvenile least Bell's vireo. ICF biologist, Ryan Layden, conducted five presence/absence surveys for least Bell's vireo within the survey area between May 9 and July 8, 2022 (Table 1). Surveys were conducted during the morning hours when vireos are most active and included frequent stops to look for individuals and listen for vocalizations. All vireo detections (vocalization points, areas used for foraging, etc.) were recorded to estimate location and extent of territories.

Representative photographs of the survey area are provided in Attachment B.

Table 1. Least Bell's vireo 2022 Survey Dates, Personnel, and Weather Conditions

| Survey Date | Survey Number | Start-End Time | Temp. (°F) | Wind Speed (mph) start/end | Cloud Cover (%) start/end | Surveyors |
|-------------|---------------|----------------|------------|----------------------------|---------------------------|-----------|
| 5/9/22 | Survey 1 | 0630-1030 | 56-68 | 0-3; 5-8 | 90-60 | R. Layden |
| 5/23/22 | Survey 2 | 0655-1045 | 58-62 | 3-6; 3-6 | 100 | R. Layden |
| 6/7/22 | Survey 3 | 0700-1100 | 63-76 | 0-3; 0-3 | 100-0 | R. Layden |
| 6/21/22 | Survey 4 | 0715-1100 | 61-79 | 0-3; 0-3 | 0-0 | R. Layden |
| 7/8/22 | Survey 5 | 0650-1030 | 67-78 | 0-3; 0-3 | 100-0 | R. Layden |

Results

In conjunction with the protocol surveys, ICF biologists noted all other wildlife species detected during the surveys. A total of 45 bird species were detected. A complete list of wildlife species is presented in Attachment C: Wildlife Species Detected.

Three least Bell's vireo territories (LBVI 01–LBVI 03) were detected during the 2022 surveys (Table 2 and Figure 3). Territory LBVI 01 contained one male that was detected on two out of the five surveys. LBVI 01 is located in the riparian area within the northeast portion of the survey area, adjacent to the driving range (Figure 3). This adult male was mostly heard from deep within the dense vegetation, but was also observed south of the driving range and in the southeast corner of its territory. No incidental observations or female or young occurred at this location; note, however that the survey methodology is focused on the detection of sing males and lack of observations should not be interpreted as absence. It is assumed that the four male least Bell's vireo detections in this area are the same individual. A brown-headed cowbird was detected in the southwest corner of this territory.

Territory LBVI 02 within Sycamore Creek contained a pair of least Bell's vireo (Figure 3). The male was detected during three out of the five surveys, primarily moving frequently and singing high in canopy. A female was also observed carrying nest building material. The nest was not observed but the male went silent for extended periods during multiple observation periods. An additional adult male least Bell's vireo was detected during one survey on the eastern end of the LBVI 02 territory. This adult male was observed singing but proceeded to fly south into the San Diego River and was not detected again in this area. It is assumed that its territory is within the San Diego River, outside of the 2022 survey area for the proposed project.

Territory LBVI 03 was observed at Sycamore Creek within the western portion of the golf course on two surveys (Figure 3). Only one male was observed during survey #4 but contact calls were also heard. An adult male and juvenile were observed together during survey #5.

Several other least Bell's vireo individuals were heard singing within the limits of the San Diego River but were not mapped as this area is known to be occupied and was not included in the 2022 survey area for the proposed project.

Table 2. Summary of 2022 Least Bell's Vireo Survey Results

| Survey Date | Survey Number | # Males | # Females | # Juveniles | # Territories | Comments |
|-------------|---------------|---------|-----------|-------------|---------------|---|
| 5/9/22 | Survey 1 | 1 | 0 | 0 | 1 | Male heard singing in Territory LBVI 01 in nonnative riparian habitat directly south of driving range. |
| 5/23/22 | Survey 2 | 0 | 0 | 0 | 0 | No vireo detected. |
| 6/7/22 | Survey 3 | 2 | 1 | 0 | 1 | An adult male vireo was observed and heard within riparian habitat associated with Sycamore Creek near territory LBVI 02. The individual male was observed for 5 minutes then flew south across golf course to San Diego River. A pair was observed in habitat in Sycamore Creek (LBVI 02). The adult male was observed singing constantly from high in canopy. An adult female was later observed carrying nest material. |
| 6/21/22 | Survey 4 | 3 | 0 | 0 | 3 | The male in LBVI 01 was detected in the northeast section of the study area. Three detection points were recorded from the west, south, and east side of the large riparian area but it is assumed that this was the same male. The male in LBVI 02 was detected signing within Sycamore Creek but went quiet for extended periods, potentially on a nest. A male was detected singing in another patch of habitat along Sycamore Creek, approximately 900' west of LBVI 02 (Territory LBVI 03). The adult male in LBVI 03 was singing in canopy and brief contact calls were also heard. |
| 7/8/22 | Survey 5 | 2 | 0 | 1 | 2 | The male in LBVI 02 observed singing. The male in LBVI 03 was observed singing in canopy with a juvenile nearby. |

Other Special-Status Bird Species

Four additional special-status bird species were observed during surveys. Yellow warbler (*Setophaga petechia*) and yellow-breasted chat (*Icteria virens*) are California Species of Special Concern (SSC) and were detected in the survey area. Cooper's hawk (*Accipiter cooperii*) and double-breasted cormorant (*Phalacrocorax auritus*) are California Department of Fish and Wildlife (CDFW) Watch List (WL) species and were also detected during surveys. Suitable nesting and foraging habitat for these species occur throughout the survey area. A double-breasted cormorant nesting colony was detected in a eucalyptus tree (*Eucalyptus* sp.) in the center of the golf course adjacent to a large pond.

References

- California Department of Fish and Wildlife (CDFW). 2022. *California Natural Diversity Database*. Available: <http://www.dfg.ca.gov/biogeodata/cnddb/>.
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Certification

I certify that the information in this survey report fully represents my work. Please do not hesitate to contact me with any questions.

Sincerely,

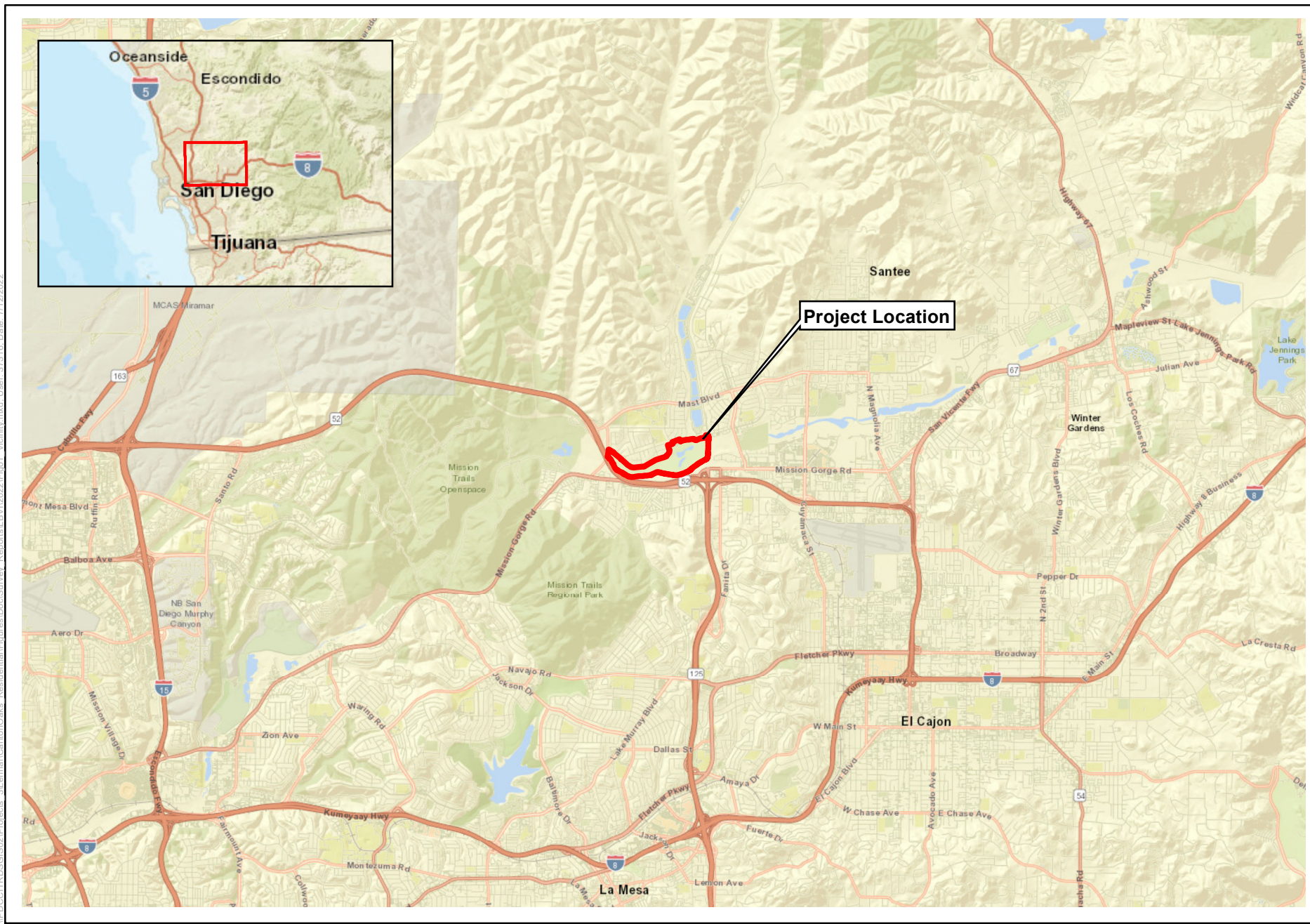


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ryan.layden@icf.com

Enclosures

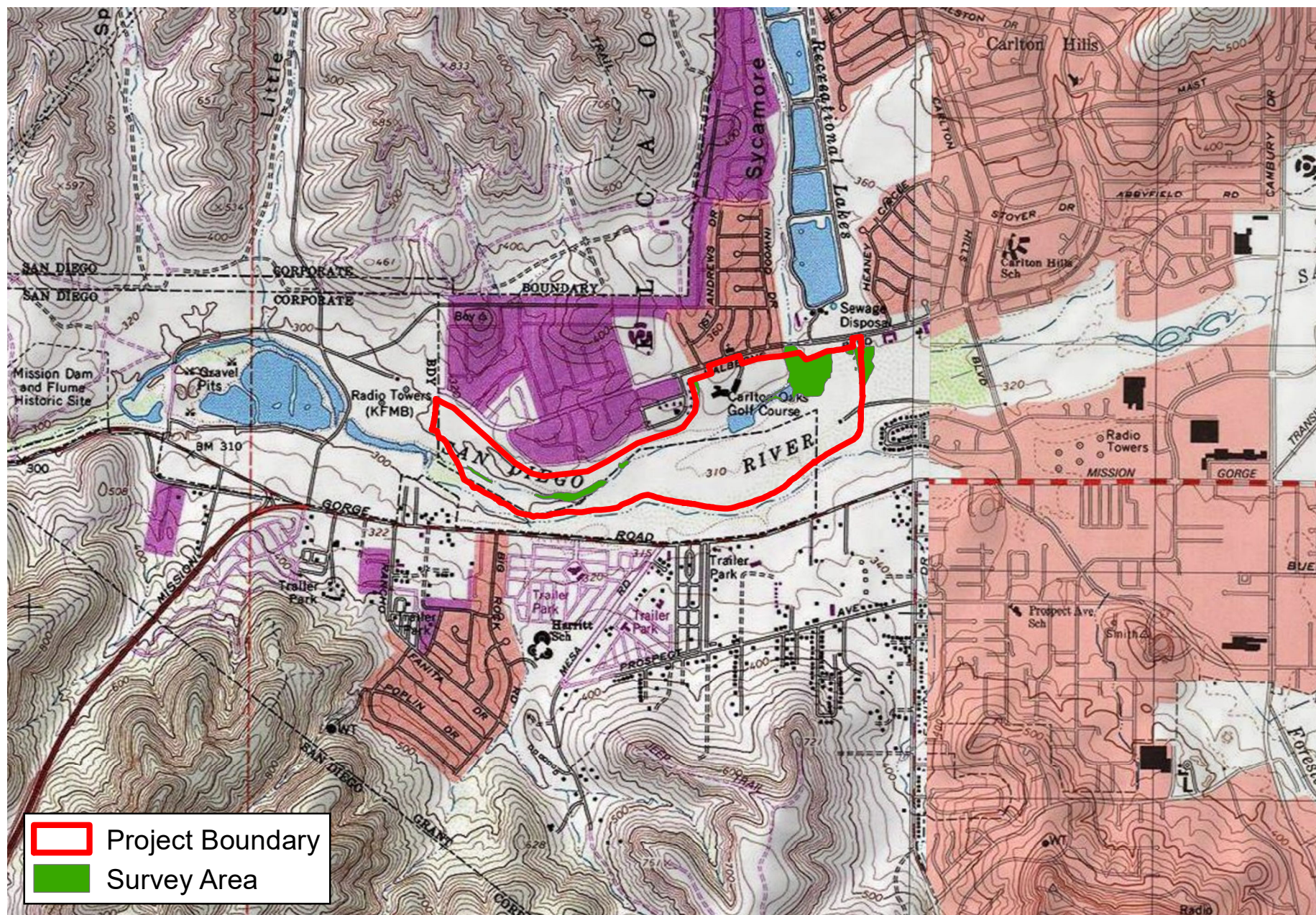
- Attachment A: Figures
 Figure 1: Regional Vicinity
 Figure 2: Project Site
 Figure 3: Survey Results
Attachment B: Representative Photographs
Attachment C: Wildlife Species Detected

Attachment A
Figures



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1:100,000

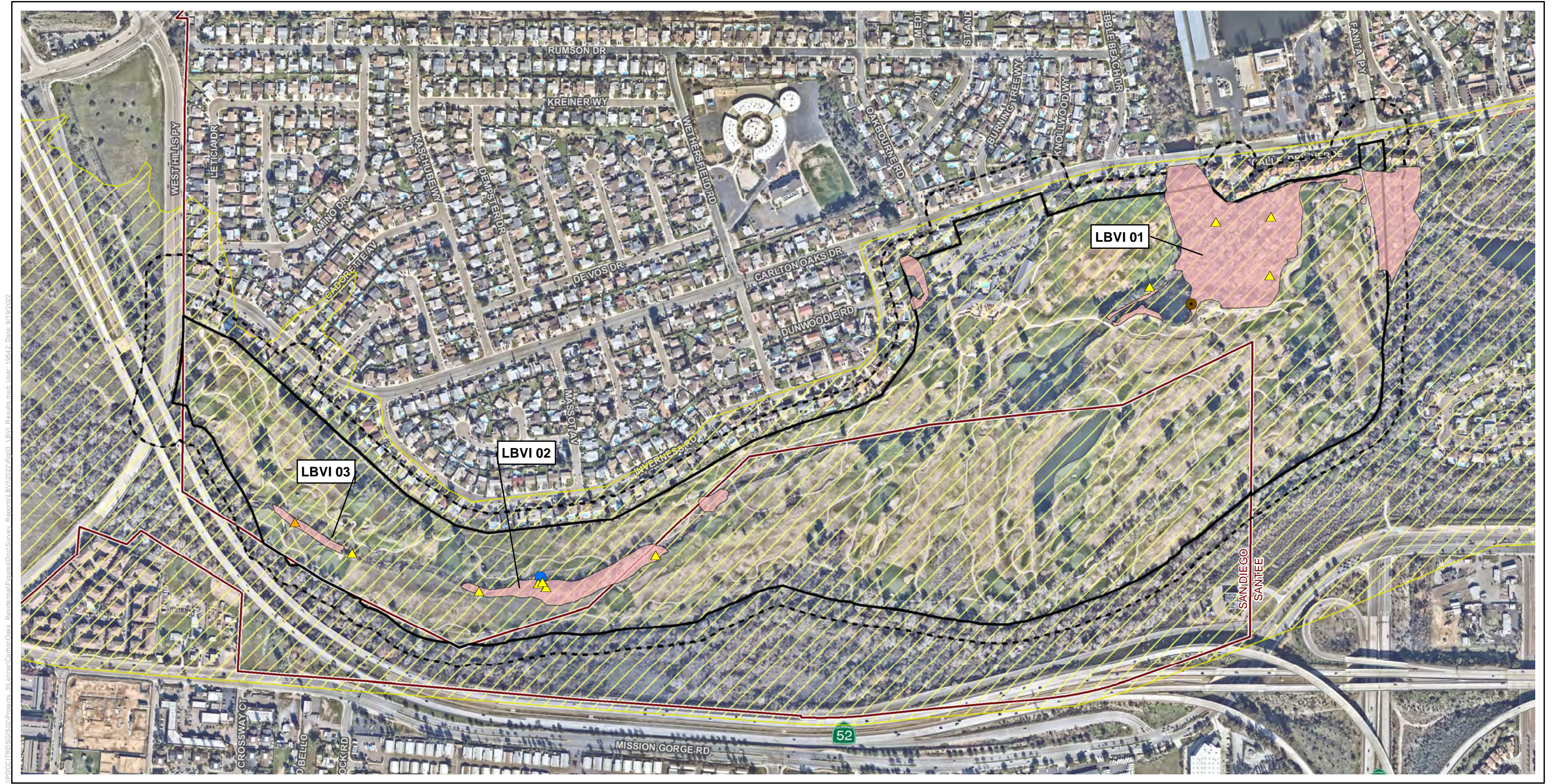
Figure 1
Regional Location
Carlton Oaks Golf Resort Project



0 1,000 2,000
Feet
1:24,000
Source: Imagery-USGS
La Mesa Quad (2022)

Figure 2
Project Vicinity
Carlton Oaks Golf Resortl Project

\\PDC\ITRDS\GIS\2022\Projects_3\Lennar\CarltonOaks_Residential\Figures\Docs\Survey_Report\LBVI2022\Fig03_LBVI_Results.mxd; User: 19542; Date: 9/19/2022



- | | |
|---|--|
| Project Boundary | Least Bell's Vireo Critical Habitat |
| Biological Study Area | Survey Area |
| City of Santee/San Diego Municipal Boundary | Brown-headed cowbird (<i>Molothrus ater</i>) |

- Least Bell's Vireo (*Vireo bellii pusillus*)**
- Female
 - Male
 - Male and juvenile
- LBVI# represents territory number - see report for details

Source: Biological Resources-ICF (2019); Imagery-SANGIS (2020)

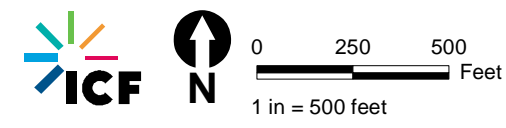


Figure 3
2022 Least Bell's Vireo Survey Results
Carlton Oaks Country Club and Resort

Attachment B

Representative Photos

Attachment B

Representative Photos



Photo 1

Date: 7/8/2022

Direction: North

Comment: View of aquatic and riparian area located south and east of driving range, associated with LBVI 01.



Photo 2

Date: 7/8/2022

Direction: Southwest

Comment: View territory LBVI 01 in northeastern portion of survey area.

Carlton Oaks Country Club and Resort
2022 Least Bell's Vireo Survey Report Attachment B



Photo 3

Date: 7/8/2022

Direction: West

Comment: View of Sycamore creek. An adult male LBVI was detected here during survey #3 before flying south towards the San Diego River. No other LBVI were detected in this area.



Photo 4

Date: 7/8/2022

Direction: South

Comment: View of territory LBVI 02 within Sycamore Creek. A female LBVI was observed carrying nest building material.

Carlton Oaks Country Club and Resort
2022 Least Bell's Vireo Survey Report Attachment B



Photo 5

Date: 7/8/2022

Direction: North

Comment: View from within Sycamore Creek, in the general area of nest location for LBVI 02.



Photo 6

Date: 7/8/2022

Direction: Southeast

Comment: View of territory LBVI 03 within Sycamore Creek. An adult male and juvenile LBVI were observed here during the final survey.

Attachment C

Wildlife Species Detected

Attachment C. Wildlife Species Detected

| Scientific Name | Common Name | Special Status |
|-----------------------------------|-------------------------------|----------------|
| VERTEBRATES | | |
| Amphibians | | |
| <i>*Lithobates catesbeianus</i> | American Bullfrog | |
| Turtles | | |
| <i>*Trachemys scripta elegans</i> | Red-eared Slider | |
| Birds | | |
| <i>Anas platyrhynchos</i> | Mallard | |
| <i>Phalacrocorax auritus</i> | Double-crested Cormorant | |
| <i>Ardea herodias</i> | Great Blue Heron | |
| <i>Egretta thula</i> | Snowy Egret | |
| <i>Butorides virescens</i> | Green Heron | |
| <i>Nycticorax nycticorax</i> | Black-crowned Night-Heron | |
| <i>Accipiter cooperii</i> | Cooper's Hawk | |
| <i>Buteo lineatus</i> | Red-shouldered Hawk | |
| <i>Buteo jamaicensis</i> | Red-tailed Hawk | |
| <i>Fulica americana</i> | American Coot | |
| <i>*Columba livia</i> | Rock Pigeon | |
| <i>*Streptopelia decaocto</i> | Eurasian Collared-Dove | |
| <i>Zenaida macroura</i> | Mourning Dove | |
| <i>Aeronautes saxatalis</i> | White-throated Swift | |
| <i>Calypte anna</i> | Anna's Hummingbird | |
| <i>Picoides nuttallii</i> | Nuttall's Woodpecker | |
| <i>*Amazona viridigenalis</i> | Red-crowned Parrot | |
| <i>Empidonax difficilis</i> | Pacific-slope Flycatcher | |
| <i>Sayornis nigricans</i> | Black Phoebe | |
| <i>Tyrannus vociferans</i> | Cassin's Kingbird | |
| <i>Vireo bellii pusillus</i> | Least Bell's Vireo | FE, SE |
| <i>Vireo huttoni</i> | Hutton's Vireo | |
| <i>Aphelocoma californica</i> | Western Scrub-Jay | |
| <i>Corvus brachyrhynchos</i> | American Crow | |
| <i>Tachycineta bicolor</i> | Tree Swallow | |
| <i>Stelgidopteryx serripennis</i> | Northern Rough-winged Swallow | |

| Scientific Name | Common Name | Special Status |
|----------------------------------|----------------------------|----------------|
| <i>Psaltiriparus minimus</i> | Bushtit | |
| <i>Troglodytes aedon</i> | House Wren | |
| <i>Sialia mexicana</i> | Western Bluebird | |
| <i>Turdus migratorius</i> | American Robin | |
| * <i>Sturnus vulgaris</i> | European Starling | |
| <i>Oreothypis celata</i> | Orange-crowned Warbler | |
| <i>Geothlypis trichas</i> | Common Yellowthroat | |
| <i>Setophaga petechia</i> | Yellow Warbler | SSC |
| <i>Icteria virens</i> | Yellow-breasted Chat | SSC |
| <i>Pipilo maculatus</i> | Spotted Towhee | |
| <i>Melospiza melodia</i> | Song Sparrow | |
| <i>Piranga ludoviciana</i> | Western Tanager | |
| <i>Agelaius phoeniceus</i> | Red-winged Blackbird | |
| <i>Quiscalus mexicanus</i> | Great-tailed Grackle | |
| * <i>Molothrus ater</i> | Brown-headed Cowbird | |
| <i>Icterus cucullatus</i> | Hooded Oriole | |
| <i>Haemorhous mexicanus</i> | House Finch | |
| <i>Spinus psaltria</i> | Lesser Goldfinch | |
| * <i>Lonchura punctulata</i> | Nutmeg Mannikin | |
| Mammals | | |
| <i>Ostospermophilus beecheyi</i> | California Ground Squirrel | |

Legend

*= Non-native or invasive species

Special Status:

Federal:

FE = Endangered

FT = Threatened

State:

SE = Endangered

ST =Threatened

SSC= California Species of Special Concern

CFP = California Fully Protected Species

Appendix I

Jurisdictional Delineation Report

AQUATIC RESOURCE DELINEATION REPORT FOR THE CARLTON OAKS PROJECT

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September 2019



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| 4 | National Wetland Inventory Map |
| 5 | NRCS Soils Map |
| 6 | USACE/RWQCB Aquatic Resources |
| 7 | CDFW Aquatic Resources |

Acronyms and Abbreviations

| | |
|--------------------|--|
| CDFW | California Department of Fish and Wildlife |
| CWA | Clean Water Act |
| FEMA | Federal Emergency Management Agency |
| GIS | geographic information system |
| GPS | global positioning systems |
| HUC | Hydrologic Unit Code |
| NHD | national hydrography dataset |
| NRCS | Natural Resources Conservation Service |
| NWI | national wetlands inventory |
| OHWM | Ordinary High Water Mark |
| Porter-Cologne Act | Porter-Cologne Water Quality Control Act |
| proposed project | Carlton Oaks Project |
| RWQCB | Regional Water Quality Control Board |
| SSURGO | Soil Survey Geographic |
| SWRCB | State Water Resources Control Board |
| USACE | U.S. Army Corps of Engineers |
| USGS | U.S. Geological Survey |

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ICF conducted a routine-level delineation of potentially jurisdictional aquatic resources for the Carlton Oaks Project (proposed project). The purpose of this delineation was to identify the extent of potential federal and state jurisdiction within the proposed project boundary pursuant to Sections 404 and 401 of the Clean Water Act (CWA), Section 13260 of the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and Section 1602 of the California Fish and Game Code.

Section 404 of the CWA covers waters of the U.S., including wetlands and are regulated by the U.S. Army Corps of Engineers (USACE). Pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) or State Water Resources Control Board (SWRCB) regulates at the state level all activities that are regulated at the federal level by the USACE. Additionally, the RWQCB and/or SWRCB may also regulate activities affecting non-federal waters and wetlands (e.g., isolated features) under the Porter-Cologne Act. Section 1602 of the California Fish and Game Code is implemented by the California Department of Fish and Wildlife (CDFW) and covers aquatic features, which include lakes or streambeds with a defined bed and bank plus any adjacent riparian vegetation.

The information and results presented herein document the investigation, best professional judgment, and conclusions of ICF. It is correct and complete to the best of our knowledge. However, all jurisdictional delineations should be considered preliminary until reviewed and approved/verified by the applicable regulatory agencies.

1.1 Project Description

The proposed project consists of four components: the West Hills Residential, Carlton Oaks Residential, Hotel and Assisted Living, and Golf Course. Below is a brief description of each project component.

- West Hills Residential will consist of 71 Detached Residential Units with access from West Hills Parkway.
- Carlton Oaks Residential will consist of 53 lots measuring 5,000 square feet each, 119 small detached condos, all located at the current club house site and access from Carlton Oaks Drive.
- Mixed-Use Hotel Site will consist of a 2-3 story hotel with 51 rooms, pool, assisted living (between 80-100 rooms), golf club house, driving range, restaurant, banquet hall, event lawn, and public trail head. This site will access from the proposed extension of Fanita Parkway. (The current clubhouse, hotel, and driving range will be relocated to this site.).
- Golf Course will be redesigned to accommodate the West Hills Residential, Carlton Oaks Residential, Hotel and Assisted Living development and create a more resort friendly playing style while maintaining 18 holes.

1.2 Project Location

The proposed project is located in the City of Santee and City of San Diego, San Diego County, California (Figure 1; all figures provided in Appendix A). Specifically, the proposed project is located at 9200 Inwood Drive, adjacent to State Route 52 and Carlton Oaks Drive. The project site is mapped in Township 15S, Range 1W of the U.S. Geological Survey (USGS) 7.5-minute La Mesa quadrangle map (USGS 2018) (Figure 2). The proposed project is located approximately at 32.839713°N, -117.010112 °W. The delineation area is consistent with the proposed project boundary.

2.1 Project Research

Prior to the field visit, aquatic resources were identified using high-resolution aerial imagery overlaid with geographic information system (GIS) data from the national wetlands inventory (NWI) (USFWS 2012) and national hydrography dataset (NHD) (USGS 2018). These were used to identify the locations of potential areas of USACE, RWQCB, and CDFW jurisdiction within the delineation area boundary. In addition to the regionally available data (e.g., NWI and NHD) the approximate location and extent of aquatic resources were identified based on observed vegetation types, topographic changes, and visible drainage patterns. Figure 3 presents the watershed and NHD drainages and Figure 4 depicts the NWI resources within the delineation area. The delineation area is located within the 100-year floodway and floodplain of the San Diego River.

2.2 Field Investigation

On April 17, 2019, ICF delineators, Lanika Cervantes and Nicole Salas, conducted the jurisdictional field delineation within the proposed project boundary. The survey was conducted on foot, and jurisdictional limits were recorded using high-resolution aerial photographs (1 inch = 100 feet) and an Apple iPad using Collector Map with a sub-meter accuracy global positioning systems (GPS) unit. Existing conditions were documented as field notes and site photographs (see Appendix B, *Carlton Oaks Photolog, April 2019*).

2.2.1 U.S. Army Corps of Engineers Jurisdiction

Potential waters of the U.S., including wetlands, were evaluated for the presence of Ordinary High Water Mark (OHWM) indicators and/or wetland vegetation, soils, and hydrology. Lateral limits of non-wetland waters of the U.S. were delineated based on the presence of OHWM indicators using field indicators pursuant to *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States: A Determination Manual* (USACE 2008a). Arid West Ephemeral and Intermittent Stream OHWM Datasheets were completed for all applicable non-wetland waters (USACE 2010) and are provided in Appendix C. The project was also analyzed for potential wetlands using the methodology set forth in the 1987 *Corps of Engineers Wetland Delineation Manual* (1987 Manual; Environmental Laboratory 1987) and the 2008 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Regional Supplement; USACE 2008b). Vascular plants were identified using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and *The National Wetland Plant List* (Lichvar et al. 2016).

Within the delineation area, in areas located outside of the OHWM that exhibited evidence of wetland hydrology and/or hydrophytic vegetation, wetland sample soil pits were dug to examine soil color and texture and determine the wetland boundary. A paired-pit technique (i.e., one sample

point with wetland results paired with one sample point with non-wetland results) was used to identify the wetland boundary. Wetland Determination Forms are provided in Appendix D.

2.2.2 State Water Resources Control Board/Regional Water Quality Control Board Jurisdiction

Evaluation of state jurisdiction followed guidance from Section 401 of the CWA and typically follows the same jurisdictional areas as USACE. In addition, the delineation area was reviewed for resources potentially regulated under the Porter-Cologne Act (i.e., isolated features). Isolated vernal pools, isolated wetlands, or other aquatic features not normally subject to federal regulation did not occur within the delineation area; therefore, no further evaluation pursuant to the Porter-Cologne Act was necessary.

2.2.3 California Department of Fish and Wildlife Jurisdiction

CDFW jurisdiction typically includes surface water features with a defined bed and bank. Evaluation of potentially jurisdictional areas followed the guidance of standard practices by CDFW personnel. Briefly, CDFW jurisdiction was delineated by measuring outer width and length boundaries of potentially jurisdictional areas (e.g., lakes or streambeds), consisting of the greater of either the top of bank measurement or the extent of adjacent associated riparian or wetland vegetation.

Chapter 3

Environmental Setting

This chapter describes existing topography, land use, hydrology, and soils associated with the delineation area.

3.1 Topography and Land Use

The delineation area occurs north of State Route 52 and south of Carlton Oaks Drive. The topography in the delineation area is relatively flat as it was located within an existing golf course.

The surrounding land uses consist of a mix of open space, which consists of undeveloped areas within the upstream and downstream segments of the San Diego River, residential and commercial development, and transportation corridors.

3.2 Hydrology

3.2.1 Existing Hydrology

The delineation area lies within the Lower San Diego River watershed (Hydrologic Unit Code [HUC] 10: 1807030407) and contains the lower San Diego River and Forester Creek. These drainages are all characterized by vegetated streambeds and riparian that run through urban areas.

The drainages are surrounded by open space with single-family residences scattered throughout the area and concentrated low density residential surrounding the delineation area. Developed areas along the San Diego River are likely causing drainages to receive additional inputs via urban runoff before they enter the Pacific Ocean. The lower San Diego River and Forester Creek are listed as impaired waterbodies under Section 303(d) of the Clean Water Act. These waterbodies are impaired by pollutants such as fecal coliform, enterococcus, selenium, nitrogen, manganese, phosphorus, total dissolved solids, and low dissolved oxygen.

3.2.2 Precipitation

Based on the San Miguel weather station located approximately 12.5 miles southeast of the delineation area, the total estimated precipitation within the last year was approximately 8.78 inches. The precipitation data for the San Miguel station for the preceding year is presented in Table 1.

Table 1. Rainfall Data Summary for the Delineation Area (in inches)¹

| May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | Total |
|------|-----|-----|------|------|------|------|------|------|------|-----|------|-------|
| 0.18 | 0 | 0 | 0.01 | 0.02 | 0.29 | 1.43 | 2.88 | 1.71 | 0.97 | 1.2 | 0.09 | 8.78 |

Data source: Western Regional Climate Control Center. Available: <http://www.raws.dri.edu>. Accessed: April 2019. San Miguel station is located approximately 12.5 miles southeast of the delineation area.

¹ Although the Miramar East weather station is located less than 8 miles northwest of the delineation area, the rain data for the Miguel station appears to be more applicable for this area. The Miramar East station only logged a total of 1.85 inches for the past year.

3.2.3 Watershed

The delineation area is located within the USGS Lower San Diego River HUC 10 and is located within the RWQCB Calwatershed San Diego Hydrologic Unit (HU), Lower San Diego Hydrologic Area (HA), and Santee Hydrologic Subarea (907.12) (Figure 3). General information on this watershed is provided below.

3.2.3.1 Lower San Diego River

The Lower San Diego River HA is a triangular shaped area that encompasses approximately 440 square miles. This watershed drains San Diego River, Forester Creek, San Vicente Creek, and numerous unnamed creeks. The dominant land uses in the Lower San Diego River HA are open space, several large reservoirs, and low density development. Most development in this watershed is residential housing.

3.3 Soils

3.3.1 Soil Series

The Natural Resources Conservation Service (NRCS) has mapped the soil series: Redding, Riverwash, Visalia, and Vista as occurring within the delineation area based on the Soil Survey Geographic (SSURGO) database (USDA/NRCS 2006) (Figure 5).

Descriptions of the soil series included within the SSURGO mapping unit (San Diego County Area; CA638) are provided below based on the official soil descriptions provided by USDA (USDA/NRCS 2012).

3.3.1.1 Redding

The Redding soil series (RdC, ReE, RhC, and RhE) consists of well or moderately well drained soils that are found on terraces. The soils are formed from alluvium derived from mixed sources. The extent of the soils occur along the northern and eastern edge of Central Valley in California. They occur in elevations from 130 to 1,000 feet and have slopes from 0 to 30 percent. They have very low to high run off and very slow to slow permeability.

This soil series is not identified as hydric soils for San Diego County (USDA/NRCS 2011).

3.3.1.2 Riverwash

The Riverwash soil series (Rm) consist of excessively drained soils and are found on drainage ways. The soils formed from sandy, gravelly, or cobbly alluvium procured from mixed sources. Occur in elevations from 700 to 2,900 feet and at 0 to 4 percent slopes. They have negligible runoff.

This soil series is identified as hydric soils for San Diego County (USDA/NRCS 2011).

3.3.1.3 Visalia

The Visalia soils series (VbB and VbC) consist of well drained soils that are typically associated with alluvial fans and floodplains. The soils are formed from alluvium derived from granite. Occur in elevations ranging from 0 to 4,000 feet and at 5 to 15 percent slopes. This soils series is identified as hydric for San Diego County (USDA/NRCS 2011).

3.3.1.4 Vista

The Vista soil series (VbB, VbC, and VvD) consists of moderately deep, well drained soils that formed in material weathered from decomposed granitic rocks. Vista soils are on hill and mountainous uplands and have slopes of 2 to 85 percent. This soil series is not identified as hydric soils for San Diego County (USDA/NRCS 2011).

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Chapter 4

Aquatic Resource Delineation Results

The following describes the delineated aquatic resources and expected jurisdictional status within the delineation area. Detailed information, including maps of the delineated aquatic resources within the delineation area, photographs, OHWM and Wetland Determination Forms, and request for an approved jurisdictional determination are provided in the following attachments:

- Appendix A, Figures (Delineated Aquatic Resources –Figures 6 and 7)
- Appendix B, Site Photographs, April 2019
- Appendix C, Arid West OHWM Data Forms
- Appendix D, Arid West Wetland Determination Forms
- Appendix E, RGL 16-01, Approved JD Request

4.1 Delineation Results

Ten aquatic resources, including two excluded golf course ponds and one concrete v-ditch within the delineation area were identified, evaluated, and mapped for potential federal, state, and CDFW jurisdiction pursuant to the regulations described above. Each feature evaluated within the delineation area is depicted on Figure 6 (USACE/RWQCB Aquatic Resources) and Figure 7 (CDFW Aquatic Resources) are described below, and summarized in Tables 2 and 3.

NWW 1 is an intermittent segment of Sycamore Canyon Creek that is likely regulated by the USACE, RWQCB, and CDFW. NWW 1 is tributary to the San Diego River and has been manipulated due to the construction of the golf course. Prior to construction of the golf course, NWW 1 was the historic main channel of San Diego River. The lateral limits of NWW1 are clearly defined by bed and bank, clear break in slope, and change in vegetation species (Appendix C, Transects 1 and 3). NWW1 flows northeast to southwest across the delineation area and contains sections of unvegetated non-wetland waters and vegetated non-wetland waters; no adjacent waters or wetlands (outside of the OHWM) were observed. Within the delineation area, NWW1 is dominated by southern cattails (*Typha domingensis*) with sections supporting patches of arroyo willow (*Salix lasiolepis*), red willow (*Salix laevigata*), cottonwood (*Populus fremontii*), and palms. A large in-line pond has also been constructed within the feature (Figures 6 and 7-Sheet 5) and an approximate 20-foot long concrete and riprap-lined dam occurs directly downstream of this pond. Near the downstream segment of the delineated feature (Figures 6 and 7 – Sheet 2), the river is not as constrained allowing for a larger active floodplain supporting an understory of yerba mansa (*Anemopsis californica*) and curly dock (*Rumex crispus*) and an overstory of willows and cottonwood.

NWW 2 is an intermittent stream, subject to USACE, RWQCB, and CDFW jurisdiction, that flows north to south, draining into NWW 1. This feature begins at a storm drain outfall located off of Carlton Oaks Drive. This feature is also manipulated as it is confined between the housing development to the west and the golf course parking lot to the east (Figures 6 and 7-Sheet 5). Lateral limits of NWW 2 were delineated based on a clear break in slope and changes in vegetation cover and species (Appendix C, Transect 2). This feature is dominated by Brazilian peppertrees

(*Schinus terebinthifolia*), southern cattails, and willows within the active floodplain while the banks are dominated by highway ice plant (*Carpobrotus edulis*). This feature flows into a large culvert, which is assumed to outlet into NWW 1 (located 200 feet south of this feature), however the outlet within NWW 1 could not be located at the time of the survey.

NWW 3 is an ephemeral stream that flows north to south and is likely subject to USACE, RWQCB, and CDFW jurisdiction. It is a tributary to NWW 1 (Figures 6 and 7 – Sheet 4). This feature starts at a small storm drain outfall near the edge of the housing developments. The channel bottom is unvegetated, however the banks support scattered palms and are dominated by ripgut brome (*Bromus diandrus*), ragweed (*Ambrosia psilostachya*), and shortpod mustard (*Hirschfeldia incana*). The lateral limits of NWW 3 are delineated based on bed and bank and break in slope.

NWW 4 (San Diego River) is associated riparian habitat to San Diego River, subject to CDFW jurisdiction only (Figure 7 – Sheet 1). No OWHM indicators or hydrology indicators were observed at this location. A 10-12 foot tall berm occurs between the golf course and San Diego River, separating small riparian patches occurring on the golf course from the riparian areas associated with the feature. However, in this area the berm has been eroded and is only 5 feet tall. Therefore, this area is considered contiguous riparian habitat subject to CDFW jurisdiction. The riparian habitat within this area is dominated by arroyo willows and mule fat.

NWW 5 is an intermittent stream channel located at the north eastern most end of the delineation area. It is densely vegetated with cattails and a mix of other riparian vegetation including willows and cottonwoods. There is an existing culverted road crossing that is approximately 16 feet wide. NWW 5 is subject to USACE, RWQCB, and CDFW jurisdiction (Figures 6 and 7-Sheet 7).

WW 1 is a depressional wetland (Figure 6 – Sheet 8) that is located approximately 400 linear feet from the San Diego River and approximately 800 linear feet from the OHWM of NWW1. Additionally WW 1 is located within the FEMA mapped 100-year floodplain. This feature is not considered CDFW jurisdictional as it is a wetland that is not directly associated with a lake, river, or stream feature. Ponded water occurs within this area, however no inlet or outlet structure was observed. Due to the location of a maintenance facility directly adjacent to this area, irrigation water may be drained into this area, allowing it to persist over time and causing wetland conditions. The area was dominated by bulrush (*Schoenoplectus sp.*) and yerba mansa near the center and Brazilian peppertrees and willows along the edge.

WW 2 is a depressional wetland (Figure 6 – Sheet 4) that is located approximately 225 linear feet from the San Diego River and approximately 425 linear feet from the OHWM of NWW1. Additionally WW 2 is located within the FEMA mapped 100-year floodplain. This feature is not considered CDFW jurisdictional as it is separated by San Diego River by a 10-12 foot high berm, and therefore is not associated with a lake, river, or stream feature. This depressional wetland had several inlet structures diverting irrigation water into this area, which is allowing this area to persist. The center of the depression supports bulrush, while the edges support willow species and mule fat (*Baccharis salicifolia*).

EW 1, EW 2, and EW 3: In addition to the mapped jurisdictional aquatic resources described above, two managed golf course ponds and one concrete v-ditch, were identified as potential aquatic resources during the desktop delineation. These features were evaluated for USACE, RWQCB and/or CDFW jurisdiction and determined not to be potential aquatic resources pursuant to sections 404 and 401 of the CWA, Porter-Cologne Act, and Section 1602 of the California Fish and Game Code.

Specifically, the two managed golf course ponds and concrete v-ditch are man-made, ornamental waters created on dry land for primarily aesthetic reasons for the existing golf course. The concrete v-ditch and western golf course pond (EW 2 and EW 3) receive urban runoff and stormwater runoff originating from the northern residential development. The man-made v-ditch and western golf course pond are not an aquatic resource as the v-ditch and western pond are not a relocated tributary, excavated in a tributary, or drain wetlands as historical aerials do not show a tributary previously existing over the area (Figure 6 – Sheet 1). Additionally, the eastern pond (EW 1, Figure 6 – Sheet 6) is filled with non-potable water and is used to irrigate the golf course grounds (Alex Corona, personal communication, March 12, 2019). Representative photos were taken of these areas and historical aerial imagery evaluated to provide further support and documentation as to why they were not considered jurisdictional.

Table 2. Summary of USACE and RWQCB Aquatic Resources within the Delineation Area

| Aquatic Resource | Linear Feet | OHWM Width ¹ | USACE/RWQCB | | |
|------------------|--------------|-------------------------|-----------------------------------|-------------------------------|---------------------------------------|
| | | | Non-wetland Acres ² | Wetland ⁴ Acres | Excluded Waters ⁵ Acres |
| NWW 1 | 4,912 | 54 | 6.48 ³ | - | -- |
| NWW 2 | 422 | 24 | 0.23 | - | -- |
| NWW 3 | 139 | 3 | 0.01 | - | -- |
| WW 1 | -- | -- | - | 0.05 | -- |
| WW 2 | -- | -- | - | 0.20 | -- |
| NWW 5 | 108 | 20 | 0.05 | -- | -- |
| EW 1 | -- | -- | -- | -- | 1.77 |
| EW 2 | -- | -- | -- | -- | 1.06 |
| EW 3 | 253 | -- | -- | -- | 0.01 |
| Sub-Total | 6,072 | - | 6.78 | 0.25 | 2.84 |
| Total | 6,072 | - | 7.03 | | 2.84 |

¹ Based on average OHWM width in the delineation area.

² Total acreage may not add up to the total shown; total is reflective of rounding geographic information systems raw data in each category

³ Of this, 0.02 acre is concrete/riprap lined.

⁴ Acreage does not include wetlands within the stream channel (i.e., wetlands below the OHWM).

⁵ 33 CFR 328.3(b)(4)(i) Artificially, constructed lakes and ponds created in dry land are not considered waters of the U.S.

Table 3. Summary of CDFW Jurisdictional Aquatic Resources within the Delineation Area

| Aquatic Resource | Linear Feet | Top of Bank Width ¹ | CDFW | | |
|------------------|--------------|--------------------------------|--|---------------------------|----------------|
| | | | Unvegetated Streambed Acres ² | Vegetated Streambed Acres | Riparian Acres |
| NWW 1 | 4,912 | 65 | 3.00 | 4.48 | 1.06 |
| NWW 2 | 422 | 60 | - | 0.61 | - |
| NWW 3 | 139 | 6 | - | 0.02 | - |
| NWW 4 | 115 | N/A | - | - | 0.06 |
| NWW 5 | 108 | 30 | | 0.07 | 0.16 |
| Sub-Total | 5,695 | - | 3.00 | 5.18 | 1.28 |
| Total | 5,695 | - | | 9.47 | |

¹ Based on average width in the proposed project boundary.

² Total acreage may not add up to the total shown; total is reflective of rounding geographic information systems raw data in each category.

4.2 Conclusion

Ten aquatic resources within the delineation area were identified and mapped for potential federal, state, and CDFW jurisdiction. A total of 7.03 acres of non-wetland and wetland aquatic resources likely subject to USACE and RWQCB regulatory jurisdiction (i.e., are waters of the U.S.) occur within the delineation area. Additionally, 9.47 acres (5,695 linear feet) of streambed and riparian resources occur within the proposed project and would be subject to CDFW jurisdiction pursuant to Sections 1600–1616 of the California Fish and Game Code. Finally, three of the mapped aquatic resources, EW 1, EW 2, and EW 3 are ornamental and/or artificial aquatic resources, constructed in dry land. In accordance with the June 29, 2015 Clean Water Rule (Federal Register Vol. 80, No. 124) these types of features are excluded aquatic resources (33 CFR 328.2(b)) and are not considered waters of the U.S. As such, an approved jurisdictional determination from the USACE is requested to confirm that jurisdiction does not exist over the excluded waters (i.e., EW 1, EW 2, and EW 3)(Appendix E).

Chapter 5

References

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Appendix A

Figures

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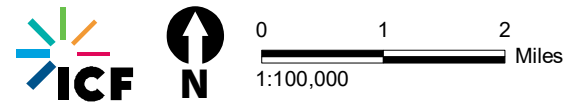
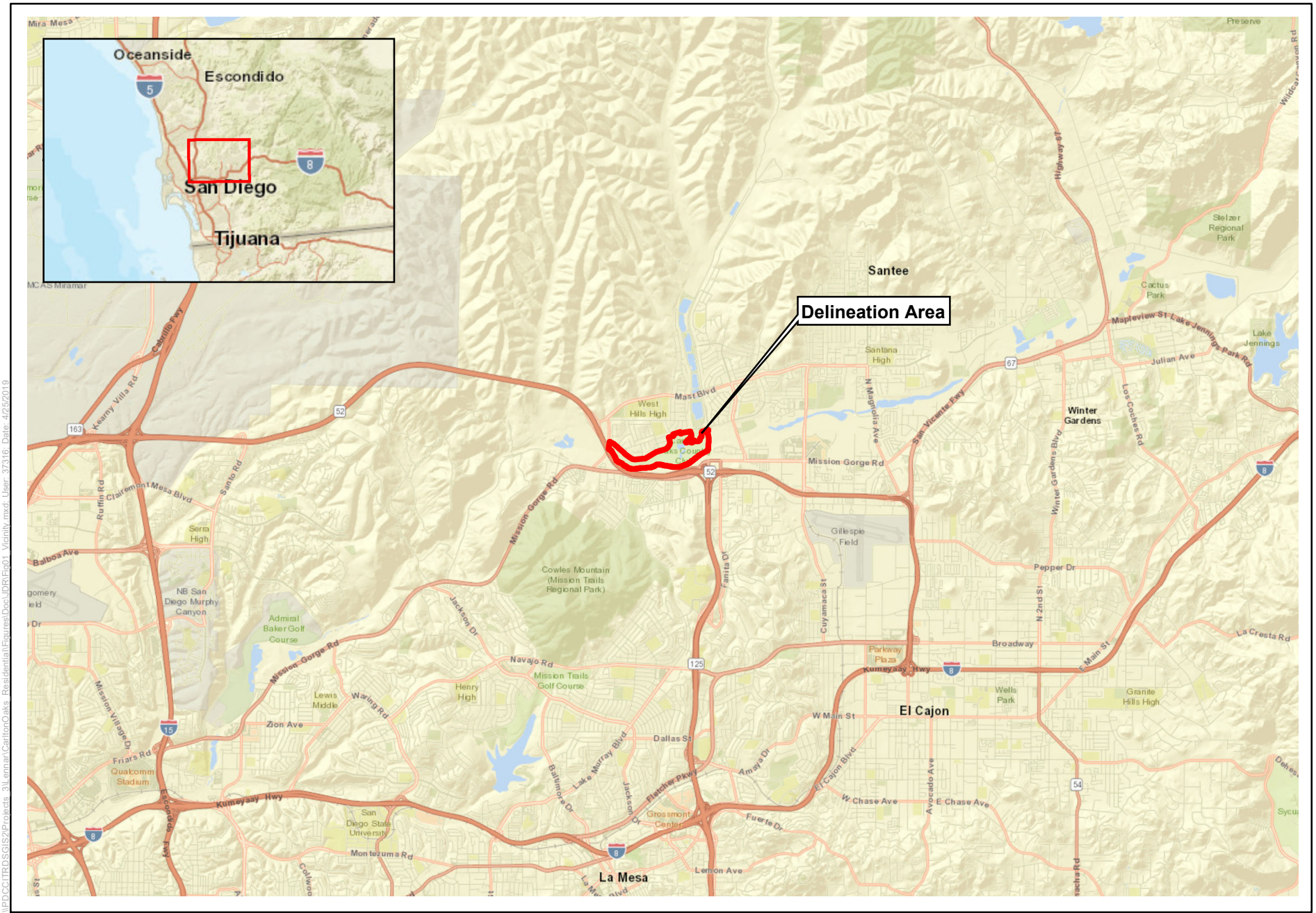


Figure 1
Regional Location
Carlton Oaks Project

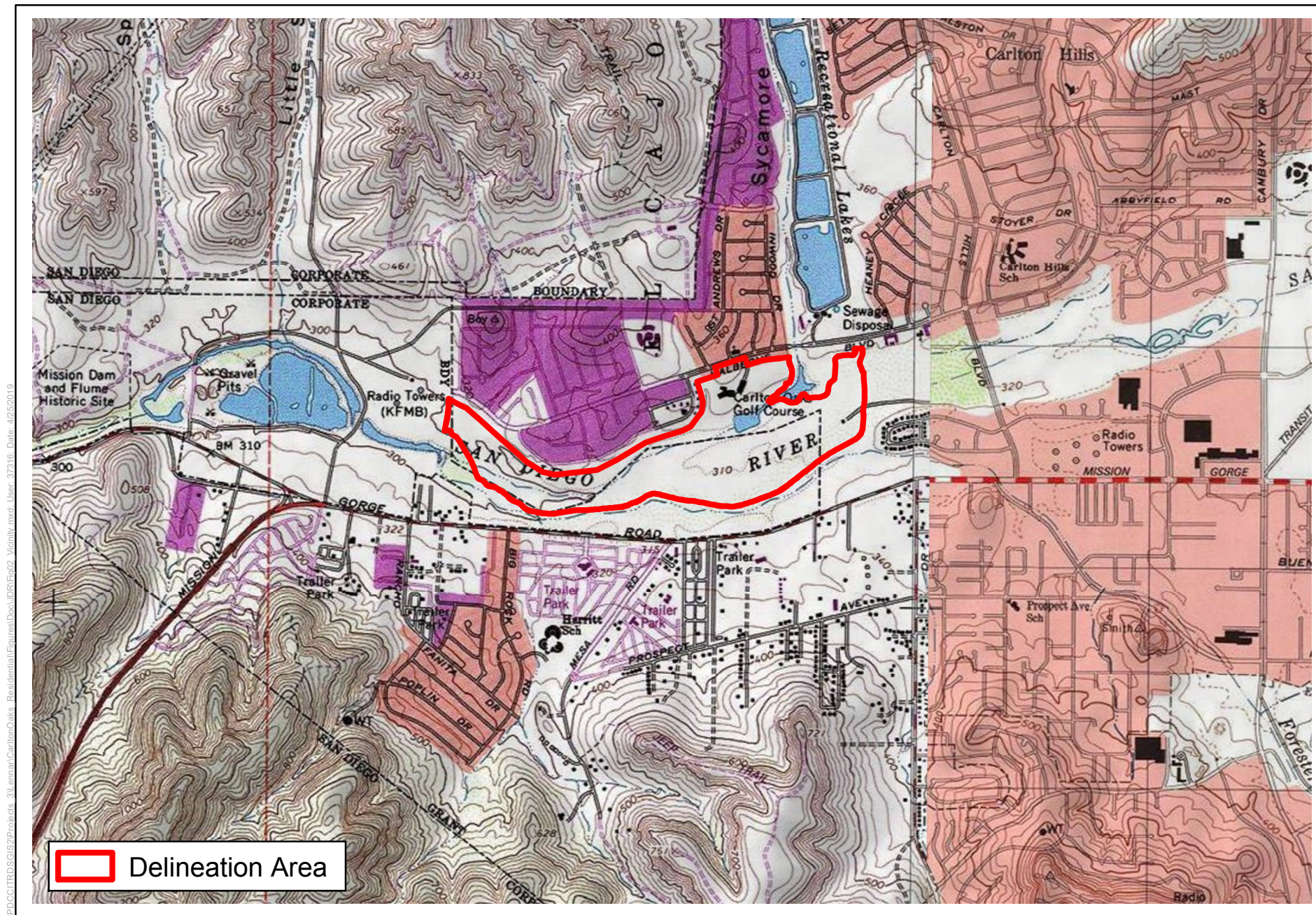
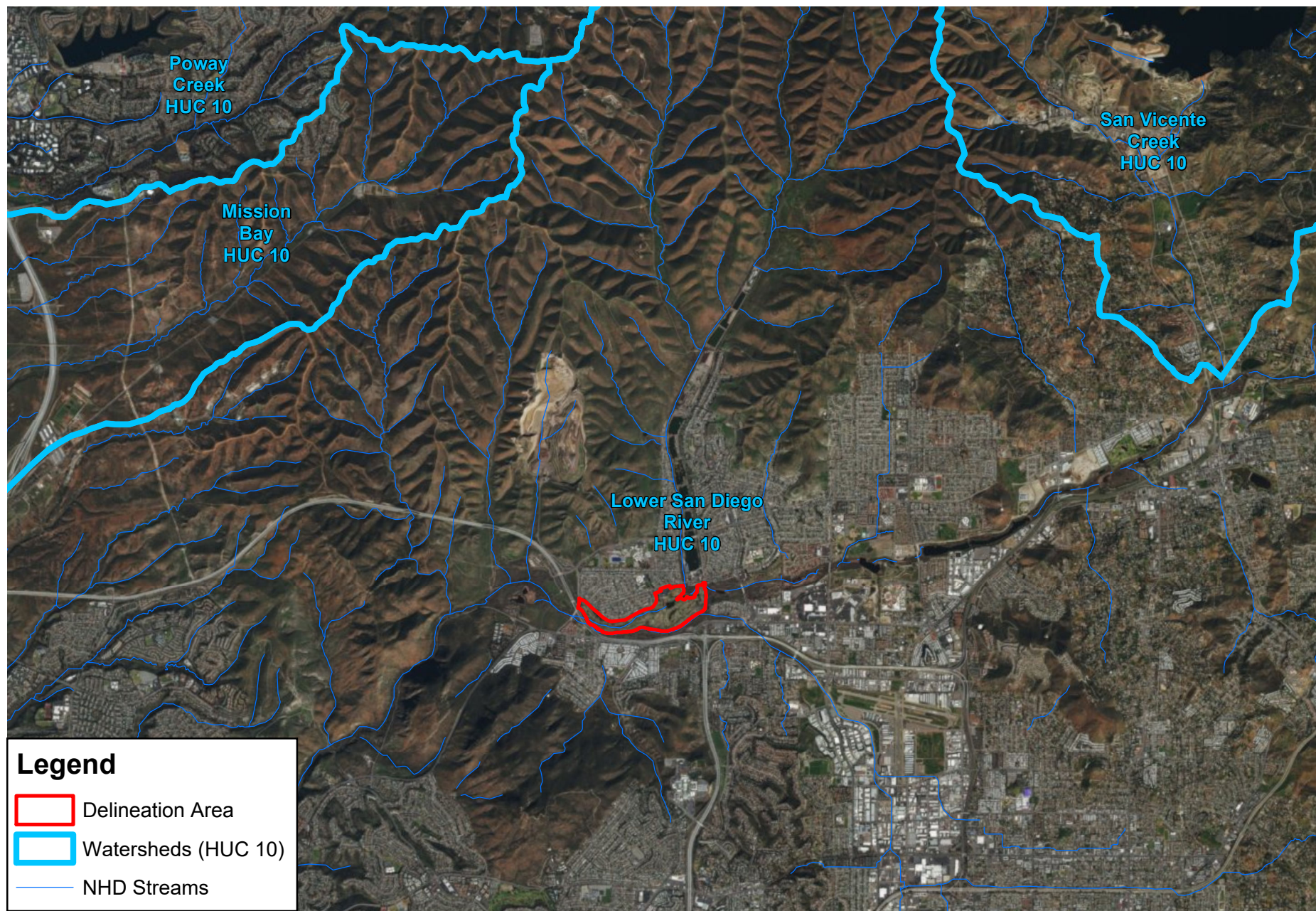


Figure 2
Project Vicinity
Carlton Oaks Project



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 Feet
 1:24,000
 Source: Imagery-USGS
 La Mesa Quad (2019)

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Miles
1:80,000

Figure 3
Watersheds
Carlton Oaks Project



Figure 4
National Wetland Inventory (NWI)
Carlton Oaks Project

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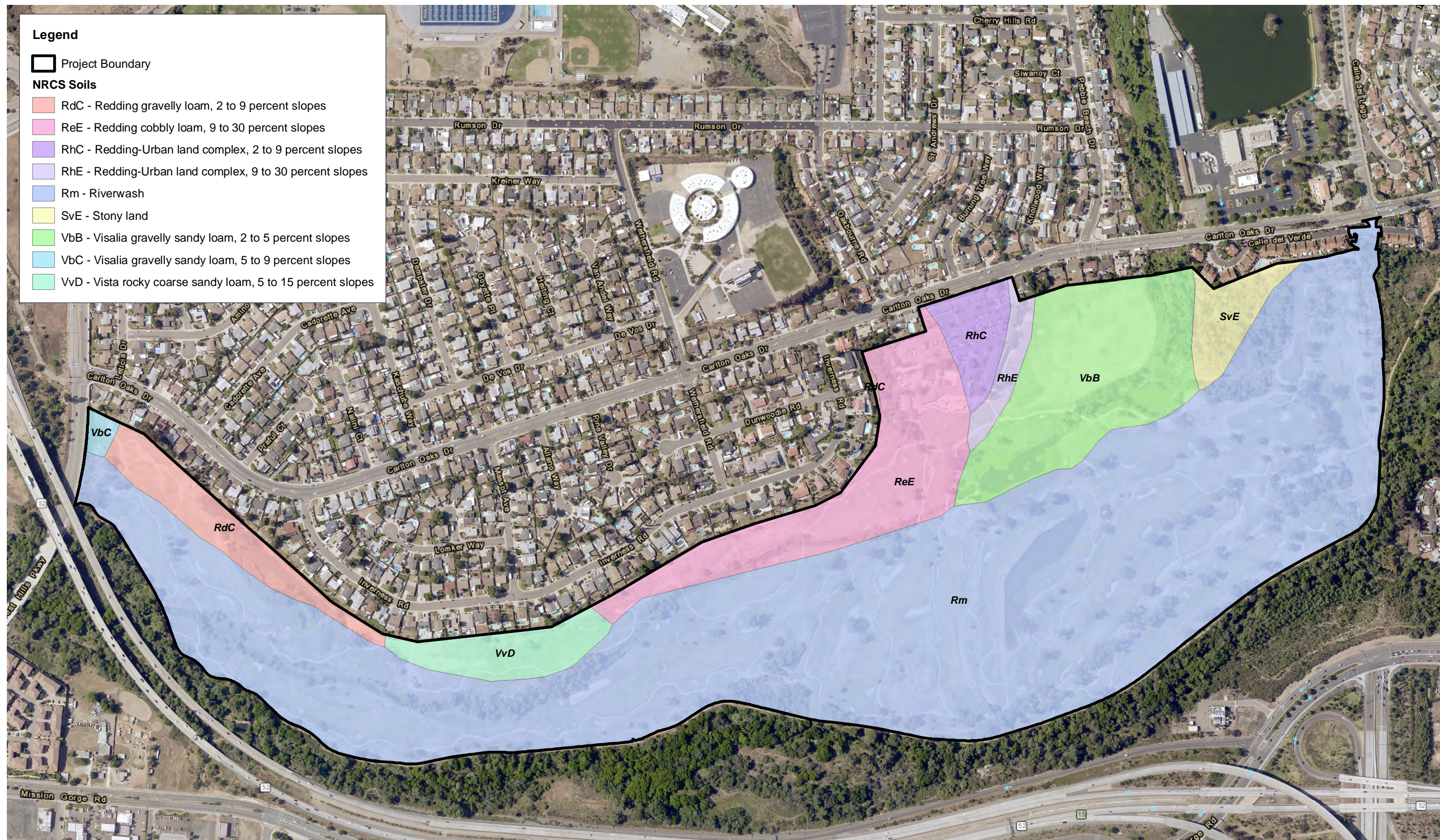


Figure 5
NRCS Soils map
Carlton Oaks Project

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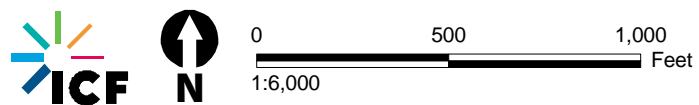


Figure 6 - Index
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

Delineation Area

Culvert

Outfall

Photo Point

Sample Point

OHWM Transect

Excluded Waters

Waters of the U.S. and State

Non-wetland Waters (Riprap-lined)

Non-wetland Waters

Wetland Waters



0 100 200
1:1,360 Feet

Figure 6 Sheet 1
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

Delineation Area

Culvert

Outfall

Photo Point

Sample Point

OHWM Transect

Excluded Waters

Waters of the U.S. and State

Non-wetland Waters (Riprap-lined)

Non-wetland Waters

Wetland Waters



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1:1,360 Feet

Figure 6 Sheet 2
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
- Culvert
- Outfall
- Photo Point
- Sample Point
- OHWM Transect
- Excluded Waters
- Waters of the U.S. and State**
 - Non-wetland Waters (Riprap-lined)
 - Non-wetland Waters
 - Wetland Waters



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1:1,360 Feet

Figure 6 Sheet 3
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
- Culvert
- Outfall
- Photo Point
- Sample Point
- OHWM Transect
- Excluded Waters
- Waters of the U.S. and State**
 - Non-wetland Waters (Riprap-lined)
 - Non-wetland Waters
 - Wetland Waters

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Legend

Delineation Area

Culvert

Outfall

Photo Point

Sample Point

OHWM Transect

Excluded Waters

Waters of the U.S. and State

Non-wetland Waters (Riprap-lined)

Non-wetland Waters

Wetland Waters



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1:1,360 Feet

Figure 6 Sheet 5
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

Delineation Area

Culvert

Outfall

Photo Point

Sample Point

OHWM Transect

Excluded Waters

Waters of the U.S. and State

Non-wetland Waters (Riprap-lined)

Non-wetland Waters

Wetland Waters



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1:1,360 Feet

Figure 6 Sheet 6
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

Delineation Area

Culvert

Outfall

Photo Point

Sample Point

OHWM Transect

Excluded Waters

Waters of the U.S. and State

Non-wetland Waters (Riprap-lined)

Non-wetland Waters

Wetland Waters



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1:1,360 Feet

Figure 6 Sheet 7
USACE/RWQCB Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
- Culvert
- Outfall
- Photo Point
- Sample Point
- OHWM Transect
- Excluded Waters
- Waters of the U.S. and State**
 - Non-wetland Waters (Riprap-lined)
 - Non-wetland Waters
 - Wetland Waters

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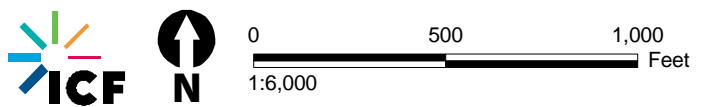


Figure 7 - Index
CDFW Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
- Culvert
- Outfall
- Photo Point
- Sample Point
- OTHM Transect
- CDFW Waters**
 - Unvegetated Streambed
 - Vegetated Streambed
 - Riparian

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Legend

-  Delineation Area
-  Culvert
-  Outfall
-  Photo Point
-  Sample Point
-  OHWM Transect
- CDFW Waters**
-  Unvegetated Streambed
-  Vegetated Streambed
-  Riparian

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Legend

- Delineation Area
- Culvert
- Outfall
- Photo Point
- Sample Point
- OHWM Transect
- CDFW Waters**
 - Unvegetated Streambed
 - Vegetated Streambed
 - Riparian



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Figure 7 Sheet 3
CDFW Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
 - Culvert
 - Outfall
 - Photo Point
 - Sample Point
 - OHWM Transect
- CDFW Waters**
- Unvegetated Streambed
 - Vegetated Streambed
 - Riparian



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Figure 7 Sheet 4
CDFW Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
 - Culvert
 - Outfall
 - Photo Point
 - Sample Point
 - OHW M Transect
- CDFW Waters**
- Unvegetated Streambed
 - Vegetated Streambed
 - Riparian












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Figure 7 Sheet 5
CDFW Aquatic Resources
Carlton Oaks Project

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Legend

-  Delineation Area
 -  Culvert
 -  Outfall
 -  Photo Point
 -  Sample Point
 -  OHWM Transect
- CDFW Waters**
-  Unvegetated Streambed
 -  Vegetated Streambed
 -  Riparian



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Figure 7 Sheet 6
CDFW Aquatic Resources
Carlton Oaks Project

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Legend

- Delineation Area
 - Culvert
 - Outfall
 - Photo Point
 - Sample Point
 - OHWM Transect
- CDFW Waters**
- Unvegetated Streambed
 - Vegetated Streambed
 - Riparian



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Figure 7 Sheet 7
CDFW Aquatic Resources
Carlton Oaks Project

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Legend













-  Delineation Area
 -  Culvert
 -  Outfall
 -  Photo Point
 -  Sample Point
 -  OHWM Transect
- CDFW Waters**
-  Unvegetated Streambed
 -  Vegetated Streambed
 -  Riparian

Figure 7 Sheet 8
CDFW Aquatic Resources
Carlton Oaks Project

Appendix B
Site Photographs, April 2019

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Carlton Oaks Photolog
Photos taken on 4/17/2019

| | |
|---|--|
|  | <p>Photo 1, Figure 6 and 7 – Sheet 1 Name: NWW 4 – San Diego River/Forester Creek – Riparian Habitat Comments: Facing south, view of associated riparian habitat. This is the only area along the project boundary where the berm between the golf course and the river is less than 5 feet higher and therefore this area was considered CDFW jurisdiction.</p> |
|  | <p>Photo 2, Figure 6 and 7 – Sheet 1 Name: NWW 1 – Sycamore Canyon Creek Comments: Facing west, view of where SP 4.2 was taken, within the OHWM however outside of wetland waters. This is before the downstream confluence of Sycamore Canyon Creek and San Diego River/Forester Creek causing a ponded area indicated by the red arrow.</p> |
|  | <p>Photo 3, Figure 6 and 7 – Sheet 1 Name: NWW 1 – Sycamore Canyon Creek Comments: Facing east, view of the lower portion of the San Diego River within the project boundary.</p> |




Carlton Oaks Photolog
Photos taken on 4/17/2019

| | |
|---|---|
|  | <p>Photo 4, Figure 6 and 7 – Sheet 1 Name: EW 2 - Constructed Pond Comments: Facing northwest, view of a constructed pond located within the northwest project area boundary. Not a jurisdictional feature as this is a constructed water feature.</p> |
|  | <p>Photo 5, Figure 6 and 7 – Sheet 3 Name: NWW 1 – Sycamore Canyon Creek Comments: Facing west, view of where SP 3.1 was taken and OHWM transect T3. In this area the river is wider and has a large active floodplain.</p> |
|  | <p>Photo 6, Figure 6 and 7 – Sheet 3 Name: Riparian Area Comments: Facing east, view of where SP 5.1 was taken to verify this area is not a wetland. A 12-foot tall berm separates San Diego River from the project area where this riparian area occurs therefore this areas was also not considered CDFW associated riparian.</p> |

Carlton Oaks Photolog
Photos taken on 4/17/2019

| | |
|---|---|
|  | <p>Photo 7, Figure 6 and 7 – Sheet 4 Name: NWW 3 Comments: Facing north, view of NWW 3 that flows into NWW 1, Sycamore Canyon Creek. It begins at an outfall at the top of the hillslope.</p> |
|  | <p>Photo 8, Figure 6 and 7 – Sheet 4 Name: NWW 1- Sycamore Canyon Creek Comments: Facing west, view of nonwetland/un-vegetated segment of NWW 1, Sycamore Canyon Creek.</p> |
|  | <p>Photo 9, Figure 6 and 7 – Sheet 4 Name: WW 2 Comments: Facing west, view of wetland depressional area dominated with cattails and willows. SP 6.1 taken within this area to confirm wetland habitat.</p> |

Carlton Oaks Photolog
Photos taken on 4/17/2019

| | |
|---|--|
|  | <p>Photo 10, Figure 6 and 7 – Sheet 4 Name: Riparian Area Comments: Facing north, within riparian area dominated by willows and oak trees. Only mature willows within this area and no hydrology indicators observed. This area was determined to not be a wetland. Additionally, there is a 10-foot tall berm that separates this riparian area from San Diego River, therefore this area was also not considered CDFW associated riparian habitat.</p> |
|  | <p>Photo 11, Figure 6 and 7 – Sheet 5 Name: NWW 2 Comments: Facing south, view of NWW 2 that flows into NWW 1, Sycamore Canyon Creek. Banks are dominated by iceplant and drainage dominated by willows.</p> |
|  | <p>Photo 12, Figure 6 and 7 – Sheet 5 Name: NWW 1 – Sycamore Canyon Creek Comments: Facing northeast, view of concrete dam. An in-line pond was constructed within NWW 1 upstream of this area.</p> |

Carlton Oaks Photolog
Photos taken on 4/17/2019



Photo 13, Figure 6 and 7 – Sheet 5
Name: NWW 1- Sycamore Canyon Creek
Comments: Facing east, view of the constructed in-line pond within NWW 1.



Photo 14, Figure 6 and 7 – Sheet 7
Name: NWW 1 – Sycamore Canyon Creek
Comments: Facing west, view of NWW 1 where SP 1.1 and 1.2 was taken. Wetland and riparian habitat occur just outside of the survey area.



Photo 15, Figure 6 and 7 – Sheet 7
Name: NWW 5
Comments: Facing east, view of NWW 5

Carlton Oaks Photolog
Photos taken on 4/17/2019



Photo 16, Figure 6 and 7 – Sheet 8
Name: WW 1
Comments: Facing southwest, view of the WW 1, a depression area. No inlet or outlet observed within this area. Ponded water and emergent vegetation observed.

Arid West Ordinary High Water Mark Data Forms

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Arid West Ephemeral and Intermittent Streams OHW M Datasheet

| | | | |
|---|--|--------------------------|------------------------|
| Project: <u>Carleton Oaks</u> | | Date: <u>4/17</u> | Time: <u>9:30</u> |
| Project Number: _____ | | Town: <u>Santa</u> | State: <u>CA</u> |
| Stream: <u>Sycamore Creek</u> | | Photo begin file#: _____ | Photo end file#: _____ |
| Investigator(s): <u>L. Cervantes + N. Salas</u> | | | |

| | |
|--|---|
| Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed? | Location Details: <u>T1 - NWW 1</u> Projection: _____ Datum: <u>U</u> Coordinates: <u>see figure 6 sheet 5</u> |
|--|---|

Potential anthropogenic influences on the channel system:
lots of irrigation; portion of the channel is within an ornamental water feature within golf course.

Brief site description:
Surrounded by maintained golf course. Channel is mostly open water with wetland fringe.

Checklist of resources (if available):

| | |
|--|---|
| <input checked="" type="checkbox"/> Aerial photography Dates: _____ <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input checked="" type="checkbox"/> Vegetation maps <input type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input checked="" type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies | <input type="checkbox"/> Stream gage data Gage number: _____ Period of record: _____ <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event |
|--|---|

Hydrogeomorphic Floodplain Units

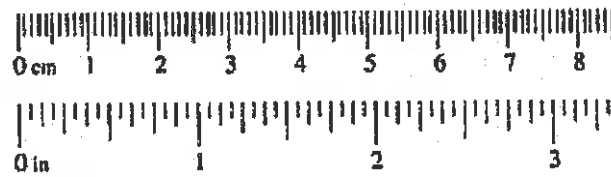
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHW M:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
 - a) Record the floodplain unit and GPS position.
 - b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
 - c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHW M and record the indicators. Record the OHW M position via:

| | |
|--|---|
| <input checked="" type="checkbox"/> Mapping on aerial photograph | <input checked="" type="checkbox"/> GPS |
| <input type="checkbox"/> Digitized on computer | <input type="checkbox"/> Other: |

Wentworth Size Classes

| Inches (in) | Millimeters (mm) | Wentworth size class | |
|---------------|------------------|----------------------|--------|
| 10.08 | 258 | Boulder | Gravel |
| 2.56 | 64 | Cobble | |
| 0.157 | 4 | Pebble | |
| 0.079 | 2.00 | Granule | |
| 0.039 | 1.00 | Very coarse sand | Sand |
| 0.020 | 0.50 | Coarse sand | |
| 1/2 0.0098 | 0.25 | Medium sand | |
| 1/4 0.005 | 0.125 | Fine sand | |
| 1/8 0.0025 | 0.0625 | Very fine sand | |
| 1/16 0.0012 | 0.031 | Coarse silt | Silt |
| 1/32 0.00081 | 0.0156 | Medium silt | |
| 1/64 0.00031 | 0.0078 | Fine silt | |
| 1/128 0.00015 | 0.0039 | Very fine silt | |
| | | Clay | Mud |



Project ID:

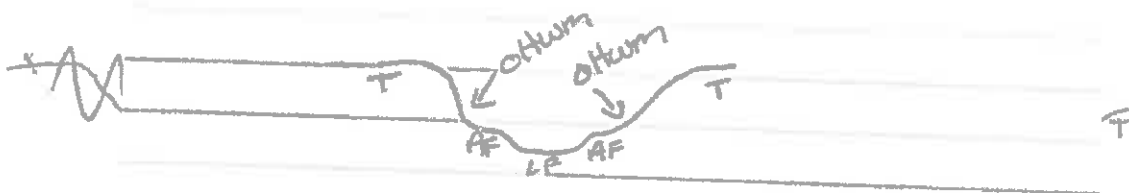
Cross section ID:

T1-NWW-1

Date:

Time:

Cross section



OHWM

GPS point: see figure sheet 5

Indicators:

- ☒ Change in average sediment texture
☒ Change in vegetation species
☐ Change in vegetation cover

☒ Break in bank slope

☐ Other: _____

☐ Other: _____

Comments:

Clear break in slope, close to trapezoidal channel, in rapon either side of channel.

Floodplain unit:

☒ Low-Flow Channel

☐ Active Floodplain

☐ Low Terrace

GPS point: sheet 4

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 40 % Tree: 0 % Shrub: 0 % Herb: 40 %

Community successional stage:

☐ NA

☒ Early (herbaceous & seedlings)

☐ Mid (herbaceous, shrubs, saplings)

☐ Late (herbaceous, shrubs, mature trees)

Indicators:

☐ Mudcracks

☒ Ripples

☐ Drift and/or debris

☐ Presence of bed and bank

☐ Benches

☐ Soil development

☐ Surface relief

☒ Other: drainage patterns

☐ Other: _____

☐ Other: _____

Comments:

Low flow is mostly open water.

Project ID:

Cross section ID: T1 -

Date:

Time:

Floodplain unit:

☐ Low-Flow Channel☒ Active Floodplain☐ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: Cobble / coarse siltTotal veg cover: 00 % Tree: 0 % Shrub: 10 % Herb: 50 %

Community successional stage:

☐ NA☐ Early (herbaceous & seedlings)☒ Mid (herbaceous, shrubs, saplings)☐ Late (herbaceous, shrubs, mature trees)

Indicators:

☐ Mudcracks☒ Ripples☐ Drift and/or debris☒ Presence of bed and bank☒ Benches☐ Soil development☐ Surface relief☐ Other: _____☐ Other: _____☐ Other: _____

Comments:

Both soil types observed within channel, cobbles near rip rap + coarse silt within AF.

Floodplain unit:

☐ Low-Flow Channel☐ Active Floodplain☒ Low Terrace

GPS point: _____

Characteristics of the floodplain unit:

Average sediment texture: BoulderTotal veg cover: 20 % Tree: 0 % Shrub: 0 % Herb: 20 %

Community successional stage:

☐ NA☒ Early (herbaceous & seedlings)☐ Mid (herbaceous, shrubs, saplings)☐ Late (herbaceous, shrubs, mature trees)

Indicators:

☐ Mudcracks☐ Ripples☐ Drift and/or debris☒ Presence of bed and bank☐ Benches☒ Soil development☐ Surface relief☐ Other: _____☐ Other: _____☐ Other: _____

Comments:

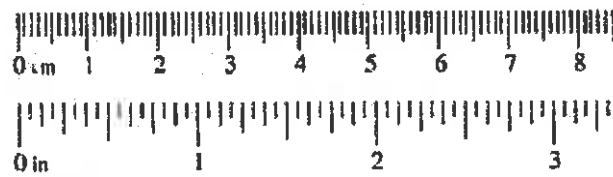
terrace is constructed from placed rip rap

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

| | | | | | | | |
|---|---|--|--------------------|--|---|--|---------------------------------|
| Project: <u>Carlton Oaks</u> | | Date: <u>4/17/19</u> | Time: <u>10:00</u> | | | | |
| Project Number: | | Town: <u>Santee</u> | State: <u>CA</u> | | | | |
| Stream: <u>Tributary to Sycamore Ck</u> | | Photo begin file#: | Photo end file#: | | | | |
| Investigator(s): <u>L. Cervantes, A. Salas</u> | | | | | | | |
| Y <input type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? | | Location Details: <u>T2 - NWW2</u> | | | | | |
| Y <input type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed? | | Projection: Datum: <u>See Figure 6 sheet 5</u> | | | | | |
| Coordinates: <u>See Figure 6 sheet 5</u> | | | | | | | |
| Potential anthropogenic influences on the channel system: <u>Feature is surrounded by development and golf course.</u> <u>Small amounts of trash and stormwater runoff into area.</u> | | | | | | | |
| Brief site description: <u>Steep banks dominated by iceplant. Riparian/wetland vegetation in channel bottom. mix of native and nonnative veg.</u> | | | | | | | |
| Checklist of resources (if available): | | | | | | | |
| <input checked="" type="checkbox"/> Aerial photography | | <input type="checkbox"/> Stream gage data | | | | | |
| Dates: | | Gage number: | | | | | |
| <input checked="" type="checkbox"/> Topographic maps | | Period of record: | | | | | |
| <input type="checkbox"/> Geologic maps | | <input type="checkbox"/> History of recent effective discharges | | | | | |
| <input checked="" type="checkbox"/> Vegetation maps | | <input type="checkbox"/> Results of flood frequency analysis | | | | | |
| <input type="checkbox"/> Soils maps | | <input type="checkbox"/> Most recent shift-adjusted rating | | | | | |
| <input type="checkbox"/> Rainfall/precipitation maps | | <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event | | | | | |
| <input type="checkbox"/> Existing delineation(s) for site | | | | | | | |
| <input checked="" type="checkbox"/> Global positioning system (GPS) | | | | | | | |
| <input type="checkbox"/> Other studies | | | | | | | |
| <p style="text-align: center;">Hydrogeomorphic Floodplain Units</p> | | | | | | | |
| <p>Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:</p> <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWM and record the indicators. Record the OHWM position via: <table border="0" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Mapping on aerial photograph</td> <td><input checked="" type="checkbox"/> GPS</td> </tr> <tr> <td><input type="checkbox"/> Digitized on computer</td> <td><input type="checkbox"/> Other:</td> </tr> </table> | | | | <input checked="" type="checkbox"/> Mapping on aerial photograph | <input checked="" type="checkbox"/> GPS | <input type="checkbox"/> Digitized on computer | <input type="checkbox"/> Other: |
| <input checked="" type="checkbox"/> Mapping on aerial photograph | <input checked="" type="checkbox"/> GPS | | | | | | |
| <input type="checkbox"/> Digitized on computer | <input type="checkbox"/> Other: | | | | | | |

Wentworth Size Classes

| Inches (in) | Millimeters (mm) | Wentworth size class | |
|---------------|------------------|----------------------|--------|
| 10.00 | 256 | Boulder | Gravel |
| 2.50 | 64 | Cobble | |
| 0.157 | 4 | Pebble | |
| 0.079 | 2.00 | Granule | |
| 0.039 | 1.00 | Very coarse sand | Sand |
| 0.020 | 0.50 | Coarse sand | |
| 1/2 0.0098 | 0.25 | Medium sand | |
| 1/4 0.005 | 0.125 | Fine sand | |
| 1/8 0.0025 | 0.0625 | Very fine sand | |
| 1/16 0.0012 | 0.031 | Coarse silt | Silt |
| 1/32 0.00061 | 0.0156 | Medium silt | |
| 1/64 0.00031 | 0.0078 | Fine silt | |
| 1/128 0.00015 | 0.0039 | Very fine silt | Mud |
| | | Clay | |



Project ID:

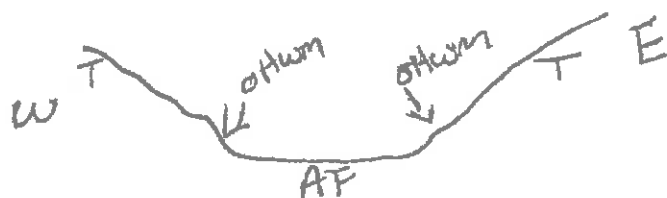
Cross section ID:

T2-1 NWW2

Date:

Time:

Cross section drawing:



OHWM

GPS point: See Figure Sheet 5

Indicators:

- ☒ Change in average sediment texture
☒ Change in vegetation species
☒ Change in vegetation cover

☒ Break in bank slope

☐ Other: _____

☐ Other: _____

Comments:

Clear break in slope as banks on both sides are very steep. Vegetation changes from Brazilian pepper tree, cottonwood, typha, and wild grape to iceplant.

Floodplain unit:

☒ Low-Flow Channel

☒ Active Floodplain

☐ Low Terrace

GPS point: Sheet 5

Characteristics of the floodplain unit:

Average sediment texture: medium silt

Total veg cover: 65 % Tree: 45 % Shrub: 0 % Herb: 25 %

Community successional stage:

☐ NA

☐ Early (herbaceous & seedlings)

☐ Mid (herbaceous, shrubs, saplings)

☒ Late (herbaceous, shrubs, mature trees)

Indicators:

☐ Mudcracks

☐ Ripples

☒ Drift and/or debris

☒ Presence of bed and bank

☐ Benches

☐ Soil development

☐ Surface relief

☐ Other: _____

☐ Other: _____

☐ Other: _____

Comments:

no true low flow channel, full area appears to be engaged. Lots of drift + debris, as well as drainage patterns. Clear break in slope.

Project ID: _____ Cross section ID: T2- NWN2 Date: _____ Time: _____

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: see Figure sheet 5

Characteristics of the floodplain unit:
 Average sediment texture: medium silt
 Total veg cover: 90 % Tree: 10 % Shrub: 0 % Herb: 80 %
 Community successional stage:
☐ NA ☐ Mid (herbaceous, shrubs, saplings)
☒ Early (herbaceous & seedlings) ☐ Late (herbaceous, shrubs, mature trees)

Indicators:
☐ Mudcracks ☒ Soil development
☐ Ripples ☐ Surface relief
☐ Drift and/or debris ☐ Other: _____
☒ Presence of bed and bank ☐ Other: _____
☐ Benches ☐ Other: _____

Comments: Area dominated by iceplant and steep 45% slopes.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: W2-11

Characteristics of the floodplain unit:
 Average sediment texture: _____
 Total veg cover: _____ % Tree: _____ % Shrub: _____ % Herb: _____ %
 Community successional stage:
☐ NA ☐ Mid (herbaceous, shrubs, saplings)
☐ Early (herbaceous & seedlings) ☐ Late (herbaceous, shrubs, mature trees)

Indicators:
☐ Mudcracks ☐ Soil development
☐ Ripples ☐ Surface relief
☐ Drift and/or debris ☐ Other: _____
☐ Presence of bed and bank ☐ Other: _____
☐ Benches ☐ Other: _____

Comments: _____

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

| | | | |
|--|--|----------------------|--------------------|
| Project: <u>Carlton Oaks</u> | | Date: <u>4/17/19</u> | Time: <u>12:30</u> |
| Project Number: | | Town: <u>Santee</u> | State: <u>CA</u> |
| Stream: <u>Sycamore Creek</u> | | Photo begin file#: | Photo end file#: |
| Investigator(s): <u>L. Cervantes, N. Sakis</u> | | | |

| | |
|--|---|
| Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> Is the site significantly disturbed? | Location Details: <u>T3- NWN 1.</u> Projection: Datum: Coordinates: <u>See Figure sheet 3</u> |
|--|---|

Potential anthropogenic influences on the channel system:
site w/in golf course and receives significant runoff from irrigation

Brief site description:
Feature in this area is a larger floodplain area w/active floodplain, not as confined as upstream and downstream areas

Checklist of resources (if available):

| | |
|---|---|
| <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input checked="" type="checkbox"/> Vegetation maps <input type="checkbox"/> Soils maps <input type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies | <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event |
|---|---|

Hydrogeomorphic Floodplain Units

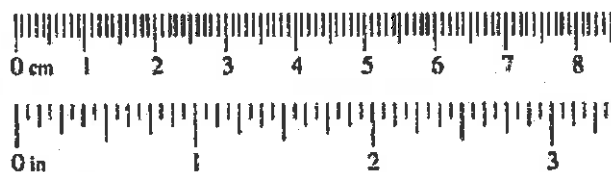
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
 - a) Record the floodplain unit and GPS position.
 - b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
 - c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:

| | |
|--|---|
| <input checked="" type="checkbox"/> Mapping on aerial photograph | <input checked="" type="checkbox"/> GPS |
| <input type="checkbox"/> Digitized on computer | <input type="checkbox"/> Other: |

Wentworth Size Classes

| Inches (in) | Millimeters (mm) | Wentworth size class | |
|---------------|------------------|----------------------|--------|
| 10.08 | 258 | Boulder | Gravel |
| 2.58 | 64 | Cobble | |
| 0.157 | 4 | Pebble | |
| 0.079 | 2.00 | Granule | |
| 0.039 | 1.00 | Very coarse sand | Sand |
| 0.020 | 0.50 | Coarse sand | |
| 1/2 0.0098 | 0.25 | Medium sand | |
| 1/4 0.005 | 0.125 | Fine sand | |
| 1/8 0.0025 | 0.0625 | Very fine sand | |
| 1/16 0.0012 | 0.031 | Coarse silt | Silt |
| 1/32 0.00081 | 0.0156 | Medium silt | |
| 1/64 0.00031 | 0.0078 | Fine silt | |
| 1/128 0.00015 | 0.0039 | Very fine silt | |
| | | Clay | Mud |



Project ID:

Cross section ID:

T3-NWW-1

Date:

Time:

Cross section drawing:



OHWM

GPS point: see Figure sheet 3

Indicators:

- ☒ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover

☒ Break in bank slope

☐ Other: _____

☐ Other: _____

Comments:

Clear break in slope, about a 5ft elevation increase from AF to Terrace. ~~the~~ Vegetation shift from wetland/riparian to annual grassland.

Floodplain unit:

☒ Low-Flow Channel

☐ Active Floodplain

☐ Low Terrace

GPS point: Sheet 3

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 40 % Tree: 0 % Shrub: 0 % Herb: 40 %

Community successional stage:

☐ NA

☒ Early (herbaceous & seedlings)

☐ Mid (herbaceous, shrubs, saplings)

☐ Late (herbaceous, shrubs, mature trees)

Indicators:

☐ Mudcracks

☐ Ripples

☒ Drift and/or debris

☐ Presence of bed and bank

☒ Benches

☐ Soil development

☐ Surface relief

☐ Other: _____

☐ Other: _____

☐ Other: _____

Comments:

Low flow supports flowing water and is 1.5ft lower in elevation from AF. Cattails and bulrush limited to Low flow.

Project ID: _____ Cross section ID: T3-NWW1 Date: _____ Time: _____

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: Sheet 3

Characteristics of the floodplain unit:
 Average sediment texture: medium silt
 Total veg cover: 100 % Tree: 40 % Shrub: 0 % Herb: 60 %
 Community successional stage:
☐ NA ☐ Mid (herbaceous, shrubs, saplings)
☐ Early (herbaceous & seedlings) ☒ Late (herbaceous, shrubs, mature trees)

Indicators:

| | |
|--|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input checked="" type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:
 AF is characterized with dominance of wetland herbs consisting of yerba mansa and curly dock w/ mature tree canopy. Lots of debris and sediment and clear bench from LF to AF then to terrace.

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: Sheet 3

Characteristics of the floodplain unit:
 Average sediment texture: medium sand
 Total veg cover: 70 % Tree: 10 % Shrub: 0 % Herb: 60 %
 Community successional stage:
☐ NA ☐ Mid (herbaceous, shrubs, saplings)
☒ Early (herbaceous & seedlings) ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

| | |
|--|--|
| <input type="checkbox"/> Mudcracks | <input checked="" type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Benches | <input type="checkbox"/> Other: _____ |

Comments:
 Low terrace dominated by annual grasses and a couple of fan palms.

Arid West Wetland Determination Forms

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WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 1.1
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Depression/drainage Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.843129 Long: -117.004691 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | |
|---|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: <u>Sample point taken at edge of wetlands for San Diego River.</u> | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|------------------|-------------------|------------------|---|------------------------------|
| 1. <u>Salix laevigata</u> | <u>20</u> | <u>Yes</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>2</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: | <u>2</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>100.0 %</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: | |
| Total Cover: <u>20 %</u> | | | | Total % Cover of: _____ Multiply by: _____ | |
| Sapling/Shrub Stratum | | | | OBL species | <u>25</u> x 1 = <u>25</u> |
| 1. _____ | _____ | _____ | _____ | FACW species | <u>20</u> x 2 = <u>40</u> |
| 2. _____ | _____ | _____ | _____ | FAC species | _____ x 3 = <u>0</u> |
| 3. _____ | _____ | _____ | _____ | FACU species | <u>10</u> x 4 = <u>40</u> |
| 4. _____ | _____ | _____ | _____ | UPL species | _____ x 5 = <u>0</u> |
| 5. _____ | _____ | _____ | _____ | Column Totals: | <u>55</u> (A) <u>105</u> (B) |
| Total Cover: _____ % | | | | Prevalence Index = B/A = <u>1.91</u> | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | |
| 1. <u>Typha domingensis</u> | <u>25</u> | <u>Yes</u> | <u>OBL</u> | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 2. <u>Vitis californica</u> | <u>5</u> | <u>No</u> | <u>FACU</u> | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 3. <u>Ambrosia psilostachya</u> | <u>5</u> | <u>No</u> | <u>FACU</u> | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 4. _____ | _____ | _____ | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 5. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 6. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| 7. _____ | _____ | _____ | _____ | | |
| 8. _____ | _____ | _____ | _____ | | |
| Total Cover: <u>35 %</u> | | | | | |
| Woody Vine Stratum | | | | | |
| 1. _____ | _____ | _____ | _____ | | |
| 2. _____ | _____ | _____ | _____ | | |
| Total Cover: _____ % | | | | | |
| % Bare Ground in Herb Stratum <u>65 %</u> % Cover of Biotic Crust _____ % | | | | | |

Remarks: The sample area was dominated with obligate and FACW vegetation.

SOIL

Sampling Point: 1.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|----------------|-----|----------------|---|-------------------|------------------|-----------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-4 | Gley 1 2.5 10Y | 100 | - | - | | | Loam/Clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☒ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils were saturated at 4 inches and had a strong hydrogen sulfide smell, which indicates hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☒ No ☐

Depth (inches): 3

Water Table Present? Yes ☒ No ☐

Depth (inches): At surface

Saturation Present? Yes ☒ No ☐
(includes capillary fringe)

Depth (inches): At surface

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had four primary hydrology indicators observed within the area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 1.2
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.843129 Long: -117.004646 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | | |
|---------------------------------|--------------------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|------------------|-------------------|---------------------------------|---|-------------------------------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>0</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: | <u>1</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>0.0</u> % (A/B) |
| 4. _____ | _____ | _____ | _____ | | |
| Total Cover: _____ % | | | | | |
| <u>Sapling/Shrub Stratum</u> | | | | Prevalence Index worksheet: | |
| 1. _____ | _____ | _____ | _____ | Total % Cover of: | Multiply by: |
| 2. _____ | _____ | _____ | _____ | OBL species | x 1 = <u>0</u> |
| 3. _____ | _____ | _____ | _____ | FACW species | x 2 = <u>0</u> |
| 4. _____ | _____ | _____ | _____ | FAC species | x 3 = <u>0</u> |
| 5. _____ | _____ | _____ | _____ | FACU species | x 4 = <u>200</u> |
| Total Cover: _____ % | | | | UPL species | x 5 = <u>0</u> |
| | | | | Column Totals: | <u>50</u> (A) <u>200</u> (B) |
| | | | | Prevalence Index = B/A = <u>4.00</u> | |
| <u>Herb Stratum</u> | | | | Hydrophytic Vegetation Indicators: | |
| 1. <i>Ambrosia psilostachya</i> | <u>40</u> | Yes | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 2. <i>Vitis californica</i> | <u>10</u> | No | FACU | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 3. _____ | _____ | _____ | _____ | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 4. _____ | _____ | _____ | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 5. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| 8. _____ | _____ | _____ | _____ | | |
| Total Cover: <u>50</u> % | | | | | |
| <u>Woody Vine Stratum</u> | | | | Hydrophytic Vegetation Present? | |
| 1. _____ | _____ | _____ | _____ | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| 2. _____ | _____ | _____ | _____ | | |
| Total Cover: _____ % | | | | | |
| % Bare Ground in Herb Stratum <u>50</u> % | | | % Cover of Biotic Crust _____ % | | |

Remarks:

SOIL

Sampling Point: 1.2

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-3 | 10YR 3/2 | 100 | | | | | Loamy Clay | |
| 3-8 | 10YR 5/2 | 92 | 10YR 5/6 | 8 | C | M | Sand | Moist soil at edge of slope near golf course |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: Compaction
Depth (inches): 8

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils were compacted and very difficult to dig, however this area did support hydric soils. May be due to irrigation from the golfcourse as this area is still lower in elevation from the course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☐ No ☒ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: No primary or secondary wetland hydrology indicators were observed within the project area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 2.1
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 32.842318 Long: -117.010926 Datum: NAD 1963
 Soil Map Unit Name: Redding cobbly loam NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | |
|---------------------------------|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | |
|--|------------------|-------------------|------------------|---|-----------|-------|----------------|
| 1. <i>Schinus terebinthifolia</i> | 15 | Yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) | | | |
| 2. | | | | Total Number of Dominant Species Across All Strata: <u>3</u> (B) | | | |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7 %</u> (A/B) | | | |
| 4. | | | | | | | |
| Total Cover: <u>15 %</u> | | | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | | | |
| 1. | | | | Total % Cover of: Multiply by: | | | |
| 2. | | | | OBL species | <u>15</u> | x 1 = | <u>15</u> |
| 3. | | | | FACW species | | x 2 = | <u>0</u> |
| 4. | | | | FAC species | <u>15</u> | x 3 = | <u>45</u> |
| 5. | | | | FACU species | <u>15</u> | x 4 = | <u>60</u> |
| Total Cover: <u>%</u> | | | | UPL species | <u>5</u> | x 5 = | <u>25</u> |
| | | | | Column Totals: | <u>50</u> | (A) | <u>145</u> (B) |
| | | | | Prevalence Index = B/A = <u>2.90</u> | | | |
| Herb Stratum | | | | Hydrophytic Vegetation Indicators: | | | |
| 1. <i>Vitis californica</i> | 15 | Yes | FACU | <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| 2. <i>Carpobrotus edulis</i> | 5 | No | Not Listed | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| 3. <i>Typha domingensis</i> | 15 | Yes | OBL | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| 4. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| Total Cover: <u>35 %</u> | | | | | | | |
| Woody Vine Stratum | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| 1. | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | | | |
| 2. | | | | | | | |
| Total Cover: <u>%</u> | | | | | | | |
| % Bare Ground in Herb Stratum <u>%</u> | | | | | | | |
| % Cover of Biotic Crust <u>%</u> | | | | | | | |

Remarks: Sample area is supported by wetland vegetation.

SOIL

Sampling Point: 2.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-3 | 10YR 3/2 | 100 | | | | | Loamy Clay | |
| 3-8 | 10YR 5/2 | 92 | 10YR 5/6 | 8 | C | M | Sand | Moist soil at edge of slope near golf course |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils were compacted and very difficult to dig and no hydric soil indicators were observed with the sample area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
☒ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☒ No ☐

Depth (inches): 3

Saturation Present? Yes ☒ No ☐
(includes capillary fringe)

Depth (inches): 1

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had both primary and secondary indicators observed within the area. High levels of sediment and drift deposits and a high water table was observed within the sample area.

| | | | | | |
|---|--|---|--|---------------------------------|----------------------------|
| Project/Site: <u>Carlton Oaks Project</u> | | City/County: <u>Santee/San Diego</u> | | Sampling Date: <u>4/17/2019</u> | |
| Applicant/Owner: <u>Lennar Corp.</u> | | | State: <u>CA</u> | | Sampling Point: <u>2.2</u> |
| Investigator(s): <u>Lanika Cervantes and Nicole Salas</u> | | | Section, Township, Range: <u>Undefined</u> | | |
| Landform (hillslope, terrace, etc.): <u>Terrace</u> | | Local relief (concave, convex, none): <u>none</u> | | Slope (%): <u>0</u> | |
| Subregion (LRR): <u>C - Mediterranean California</u> | | Lat: <u>32.842318</u> | Long: <u>-117.010868</u> | | Datum: <u>NAD 1963</u> |
| Soil Map Unit Name: <u>Redding cobbly loam</u> | | | NWI classification: <u>Undefined</u> | | |

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

| | | | | | |
|--|---------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Sample point 2.2 is approximately 20 feet higher in elevation than sample point 2.1 | | | | | |

| <u>Tree Stratum</u> (Use scientific names.) | <u>Absolute % Cover</u> | <u>Dominant Species?</u> | <u>Indicator Status</u> | | |
|---|-------------------------|--------------------------------|-------------------------|--|--|
| 1. _____ | | | | | |
| 2. _____ | | | | | |
| 3. _____ | | | | | |
| 4. _____ | | | | | |
| Total Cover: | | | | | |
| <u>Sapling/Shrub Stratum</u> | | | | | |
| 1. _____ | | | | | |
| 2. _____ | | | | | |
| 3. _____ | | | | | |
| 4. _____ | | | | | |
| 5. _____ | | | | | |
| Total Cover: | | | | | |
| <u>Herb Stratum</u> | | | | | |
| 1. <i>Carpobrotus edulis</i> | 90 | Yes | Not Listed | | |
| 2. <i>Ambrosia psilostachya</i> | 3 | No | FACU | | |
| 3. _____ | | | | | |
| 4. _____ | | | | | |
| 5. _____ | | | | | |
| 6. _____ | | | | | |
| 7. _____ | | | | | |
| 8. _____ | | | | | |
| Total Cover: | 93 | | | | |
| <u>Woody Vine Stratum</u> | | | | | |
| 1. _____ | | | | | |
| 2. _____ | | | | | |
| Total Cover: | | | | | |
| <u>% Bare Ground in Herb Stratum</u> | | <u>% Cover of Biotic Crust</u> | | | |
| | | | | | |

| Dominance Test worksheet: | | | |
|---|-----|-------------------------------------|---------|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 0 | | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 0.0 | % | (A/B) |
| Prevalence Index worksheet: | | | |
| <u>Total % Cover of:</u> | | <u>Multiply by:</u> | |
| OBL species | | x 1 = | 0 |
| FACW species | | x 2 = | 0 |
| FAC species | | x 3 = | 0 |
| FACU species | 3 | x 4 = | 12 |
| UPL species | 90 | x 5 = | 450 |
| Column Totals: | 93 | (A) | 462 (B) |
| Prevalence Index = B/A = | | 4.97 | |
| Hydrophytic Vegetation Indicators: | | | |
| <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| Hydrophytic Vegetation Present? | | | |
| Yes <input type="radio"/> | | No <input checked="" type="radio"/> | |

Remarks: The sample area is dominated with upland vegetaion and ornamental vegetation.

SOIL

Sampling Point: 2.2

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-14 | 10YR 3/3 | 100 | - | | | | Loamy Clay | Dry soils |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: No hydric soil indicators were observed with the sample area.

HYDROLOGY

Wetland Hydrology Indicators:**Primary Indicators (any one indicator is sufficient)**

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: The sample area had no primary nor secondary indicators observed within the area.

| | | |
|---|---|---------------------------------|
| Project/Site: <u>Carlton Oaks Project</u> | City/County: <u>Santee/San Diego</u> | Sampling Date: <u>4/17/2019</u> |
| Applicant/Owner: <u>Lennar Corp.</u> | State: <u>CA</u> | Sampling Point: <u>3.1</u> |
| Investigator(s): <u>Lanika Cervantes and Nicole Salas</u> | Section, Township, Range: <u>Undefined</u> | |
| Landform (hillslope, terrace, etc.): <u>Floodplain</u> | Local relief (concave, convex, none): <u>none</u> | Slope (%): <u>0</u> |
| Subregion (LRR): <u>C - Mediterranean California</u> | Lat: <u>32.837908</u> | Long: <u>-117.017178</u> |
| | | Datum: <u>NAD 1963</u> |
| Soil Map Unit Name: <u>Riverwash</u> | NWI classification: <u>Riverine</u> | |

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

| | | | | | |
|---|--------------------------------------|--------------------------|--|--------------------------------------|--------------------------|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> | No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | | |
| Remarks: Sample point 3.1 is approximately 3 feet lower in elevation than sample point 3.2. | | | | | |

| <u>Tree Stratum</u> (Use scientific names.) | <u>Absolute % Cover</u> | <u>Dominant Species?</u> | <u>Indicator Status</u> | | | | |
|---|-------------------------|--------------------------|-------------------------|--|---|--|--|
| 1. <i>Salix lasiolepis</i> | 25 | Yes | FACW | | | | |
| 2. <i>Populus fremontii</i> | 20 | Yes | FAC | | | | |
| 3. <i>Schinus terebinthifolius</i> | 10 | No | Not Listed | | | | |
| 4. _____ | | | | | | | |
| Total Cover: | | | 55 % | | | | |
| <u>Sapling/Shrub Stratum</u> | | | | | | | |
| 1. _____ | | | | | | | |
| 2. _____ | | | | | | | |
| 3. _____ | | | | | | | |
| 4. _____ | | | | | | | |
| 5. _____ | | | | | | | |
| Total Cover: | | | % | | | | |
| <u>Herb Stratum</u> | | | | | | | |
| 1. <i>Rumex crispus</i> | 30 | Yes | FAC | | | | |
| 2. <i>Anemopsis californica</i> | 20 | Yes | OBL | | | | |
| 3. _____ | | | | | | | |
| 4. _____ | | | | | | | |
| 5. _____ | | | | | | | |
| 6. _____ | | | | | | | |
| 7. _____ | | | | | | | |
| 8. _____ | | | | | | | |
| Total Cover: | | | 50 % | | | | |
| <u>Woody Vine Stratum</u> | | | | | | | |
| 1. _____ | | | | | | | |
| 2. _____ | | | | | | | |
| Total Cover: | | | % | | | | |
| % Bare Ground in Herb Stratum | | % | % Cover of Biotic Crust | | % | | |

| Dominance Test worksheet: | | | |
|---|---------|--------------------------|---------|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 4 | (A) | |
| Total Number of Dominant Species Across All Strata: | 4 | (B) | |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100.0 % | (A/B) | |
| Prevalence Index worksheet: | | | |
| Total % Cover of: | | Multiply by: | |
| OBL species | 20 | x 1 = | 20 |
| FACW species | 25 | x 2 = | 50 |
| FAC species | 50 | x 3 = | 150 |
| FACU species | | x 4 = | 0 |
| UPL species | 10 | x 5 = | 50 |
| Column Totals: | 105 | (A) | 270 (B) |
| Prevalence Index = B/A = | | | 2.57 |
| Hydrophytic Vegetation Indicators: | | | |
| <input checked="" type="checkbox"/> Dominance Test is >50% | | | |
| <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | | | |
| <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | | | |
| <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | |
| ¹ Indicators of hydric soil and wetland hydrology must be present. | | | |
| Hydrophytic Vegetation Present? | | | |
| Yes <input checked="" type="radio"/> | | No <input type="radio"/> | |

Remarks: The sample area is dominated with obligate, FACW and FAC vegetation.

SOIL

Sampling Point: 3.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-4 | 10YR 3/1 | 100 | | | | | Loamy Clay | |
| 4-8 | 10YR 4/1 | 98 | Gley 1 2.5/N | 2 | | | Sand | |
| 8-18 | 10 YR 4/1 | 100 | | | | | Loamy Clay | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

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

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: The soil had a faint Hydrogen Sulfide smell, and distinct redox concentrations

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had three secondary indicators observed within the area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 3.2
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.838026 Long: -117.017112 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | | |
|--|---------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Sample point taken on floodplain terrace, but located 5 feet higher in elevation from drainage. | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|---------------------|----------------------|---------------------|---|------------------------------|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: | <u>1</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>0.0</u> % (A/B) |
| 4. _____ | | | | | |
| Total Cover: | <u> </u> % | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | |
| 1. _____ | | | | Total % Cover of: | Multiply by: |
| 2. _____ | | | | OBL species | x 1 = <u>0</u> |
| 3. _____ | | | | FACW species | <u>5</u> x 2 = <u>10</u> |
| 4. _____ | | | | FAC species | x 3 = <u>0</u> |
| 5. _____ | | | | FACU species | <u>40</u> x 4 = <u>160</u> |
| Total Cover: | <u> </u> % | | | UPL species | <u>10</u> x 5 = <u>50</u> |
| Herb Stratum | | | | Column Totals: | <u>55</u> (A) <u>220</u> (B) |
| 1. <i>Erigeron canadensis</i> | <u>40</u> | Yes | FACU | Prevalence Index = B/A = <u>4.00</u> | |
| 2. <i>Hirschfeldia incana</i> | <u>10</u> | No | Not Listed | | |
| 3. <i>Juncus acutus</i> | <u>5</u> | No | FACW | | |
| 4. _____ | | | | | |
| 5. _____ | | | | | |
| 6. _____ | | | | | |
| 7. _____ | | | | | |
| 8. _____ | | | | | |
| Total Cover: | <u>55</u> % | | | | |
| Woody Vine Stratum | | | | Hydrophytic Vegetation Indicators: | |
| 1. _____ | | | | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 2. _____ | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| | | | | Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| % Bare Ground in Herb Stratum <u> </u> % % Cover of Biotic Crust <u> </u> % Remarks: The sample area is dominated with upland vegetation. | | | | | |

SOIL

Sampling Point: 3.2

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-13 | 10YR 3/3 | 100 | | | | | Loamy Clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: No hydric soil indicators were observed with the sample area. The sample pit was approximately 5 feet higher than the drainage/lower floodplain.

HYDROLOGY

Wetland Hydrology Indicators:**Primary Indicators (any one indicator is sufficient)**

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: The sample area had signs of sediment deposits, which could be from the drainage overflowing in high rain events.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 4.1
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.83911 Long: -117.022093 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | |
|---------------------------------|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---------------------------------------|---------------------|---------------------------------|---------------------|---|-----------------------------|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>1</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: | <u>1</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>100.0 %</u> (A/B) |
| 4. _____ | | | | | |
| Total Cover: _____ % | | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | |
| 1. _____ | | | | Total % Cover of: | Multiply by: |
| 2. _____ | | | | OBL species <u>20</u> | x 1 = <u>20</u> |
| 3. _____ | | | | FACW species _____ | x 2 = <u>0</u> |
| 4. _____ | | | | FAC species _____ | x 3 = <u>0</u> |
| 5. _____ | | | | FACU species _____ | x 4 = <u>0</u> |
| Total Cover: _____ % | | | | UPL species _____ | x 5 = <u>0</u> |
| Herb Stratum | | | | Column Totals: | <u>20</u> (A) <u>20</u> (B) |
| 1. <i>Typha domingensis</i> | <u>20</u> | Yes | OBL | Prevalence Index = B/A = <u>1.00</u> | |
| 2. _____ | | | | Hydrophytic Vegetation Indicators: | |
| 3. _____ | | | | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 4. _____ | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 5. _____ | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 6. _____ | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 7. _____ | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 8. _____ | | | | Hydrophytic Vegetation Present? | |
| Total Cover: <u>20</u> % | | | | Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Woody Vine Stratum | | | | | |
| 1. _____ | | | | | |
| 2. _____ | | | | | |
| Total Cover: _____ % | | | | | |
| % Bare Ground in Herb Stratum _____ % | | % Cover of Biotic Crust _____ % | | | |

Remarks: The sample area is dominated with obligate vegetation.

SOIL

Sampling Point: 4.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|---------|------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| | | | | | | | | No pit dug |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: No sample pit was dug because standing water was within the sample area and roots were inhibiting obtaining a soil sample.
Soil assumed hydric based on primary hydrology indicators and dominance of obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☒ No ☐

Depth (inches): 5

Water Table Present? Yes ☒ No ☐

Depth (inches): At Surface

Saturation Present? Yes ☒ No ☐
(includes capillary fringe)

Depth (inches): At Surface

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had surface water present, which is a primary wetland hydrology indicator.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 4.2
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.839132 Long: -117.022086 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | |
|--|--------------------------------------|-------------------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: <u>Sample point taken within OHWM however outside of wetland area</u> | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|------------------|-------------------|---------------------------------|---|------------------------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>0</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: | <u>2</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>0.0</u> % (A/B) |
| 4. _____ | _____ | _____ | _____ | | |
| Total Cover: _____ % | | | | | |
| <u>Sapling/Shrub Stratum</u> | | | | Prevalence Index worksheet: | |
| 1. _____ | _____ | _____ | _____ | Total % Cover of: | Multiply by: |
| 2. _____ | _____ | _____ | _____ | OBL species | x 1 = <u>0</u> |
| 3. _____ | _____ | _____ | _____ | FACW species | x 2 = <u>0</u> |
| 4. _____ | _____ | _____ | _____ | FAC species | x 3 = <u>0</u> |
| 5. _____ | _____ | _____ | _____ | FACU species | x 4 = <u>0</u> |
| Total Cover: _____ % | | | | UPL species | x 5 = <u>105</u> |
| | | | | Column Totals: | <u>21</u> (A) <u>105</u> (B) |
| | | | | Prevalence Index = B/A = <u>5.00</u> | |
| <u>Herb Stratum</u> | | | | Hydrophytic Vegetation Indicators: | |
| 1. <u>Hirschfeldia incana</u> | <u>15</u> | <u>Yes</u> | <u>Not Listed</u> | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 2. <u>Bromus diandrus</u> | <u>5</u> | <u>Yes</u> | <u>Not Listed</u> | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 3. <u>Centaurea solstitialis</u> | <u>1</u> | <u>No</u> | <u>Not Listed</u> | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 4. _____ | _____ | _____ | _____ | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 5. _____ | _____ | _____ | _____ | | |
| 6. _____ | _____ | _____ | _____ | | |
| 7. _____ | _____ | _____ | _____ | | |
| 8. _____ | _____ | _____ | _____ | | |
| Total Cover: <u>21</u> % | | | | | |
| <u>Woody Vine Stratum</u> | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 1. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? | |
| 2. _____ | _____ | _____ | _____ | Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Total Cover: _____ % | | | | | |
| % Bare Ground in Herb Stratum <u>79</u> % | | | % Cover of Biotic Crust _____ % | | |

Remarks: The sample area is dominated with upland vegetation.

SOIL

Sampling Point: 4.2

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|-----------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-8 | 10YR 4/3 | 100 | | | | | sand | |
| 8-14 | 10YR 3/2 | 95 | 7.5 YR 4/6 | 5 | C | M | Loamy Clay | Prominent redox |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:³

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: The soils do not meet any of the hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had some sediment and drift deposits as this area was determined to be within the OHWM, however did not support wetland habitat.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 5.1
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): C - Mediterranean California Lat: 32.837337 Long: -117.016892 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|--|--------------------------------------|-------------------------------------|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | |
| Remarks: Sample pit 5.1 was to confirm that the riparian habitat observed near the golf course berm was not a wetland. | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|--|------------------|-------------------------|------------------|---|----------------|
| 1. <i>Salix nigra</i> | 25 | Yes | OBL | Number of Dominant Species That Are OBL, FACW, or FAC: | 3 (A) |
| 2. <i>Populus fremontii</i> | 15 | Yes | FAC | Total Number of Dominant Species Across All Strata: | 5 (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | 60.0 % (A/B) |
| 4. | | | | | |
| Total Cover: | 40 % | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | |
| 1. | | | | Total % Cover of: | Multiply by: |
| 2. | | | | OBL species | 25 x 1 = 25 |
| 3. | | | | FACW species | x 2 = 0 |
| 4. | | | | FAC species | 25 x 3 = 75 |
| 5. | | | | FACU species | 20 x 4 = 80 |
| Total Cover: | % | | | UPL species | 17 x 5 = 85 |
| | | | | Column Totals: | 87 (A) 265 (B) |
| Herb Stratum | | | | Prevalence Index = B/A = 3.05 | |
| 1. <i>Lactuca serriola</i> | 20 | Yes | FACU | Hydrophytic Vegetation Indicators: | |
| 2. <i>Hirschfeldia incana</i> | 10 | Yes | Not Listed | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 3. <i>Anagallis arvensis</i> | 10 | Yes | FAC | <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 4. <i>Centaurea solstitialis</i> | 5 | No | Not Listed | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 5. <i>Foeniculum vulgare</i> | 2 | No | Not Listed | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 6. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 7. | | | | | |
| 8. | | | | | |
| Total Cover: | 47 % | | | Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Woody Vine Stratum | | | | | |
| 1. | | | | | |
| 2. | | | | | |
| Total Cover: | % | | | | |
| % Bare Ground in Herb Stratum | 53 % | % Cover of Biotic Crust | % | | |
| Remarks: The sample area is dominated with herbaceous upland vegetation and has a canopy of willows that overhangs into the sample area. | | | | | |

SOIL

Sampling Point: 5.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-7 | 10YR 4/3 | 100 | - | | | | sand | |
| 8-15 | 10YR 4/2 | 100 | - | | | | Loamy Clay | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

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

Indicators for Problematic Hydric Soils:³

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

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: No hydric soil indicators were observed within the sample area.

HYDROLOGY

Wetland Hydrology Indicators:**Primary Indicators (any one indicator is sufficient)**

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

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: The sample area had some drift deposits but no other primary nor secondary wetland hydrology indicators. There is also a large 12 foot tall berm that separates this riparian habitat to Forester Creek. Drift deposits may have occurred due to large rain events or irrigation flows in this area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 6.1
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): 1
 Subregion (LRR): C - Mediterranean California Lat: 32.838488 Long: -117.012336 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Freshwater Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | |
|---------------------------------|--------------------------------------|--------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="radio"/> No <input type="radio"/> |
| Hydric Soil Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | | |
| Remarks: | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|--------------------------------------|------------------|-------------------|------------------|---|---------------|
| 1. <i>Salix laevigata</i> | 15 | Yes | FACW | Number of Dominant Species That Are OBL, FACW, or FAC: | 3 (A) |
| 2. | | | | Total Number of Dominant Species Across All Strata: | 3 (B) |
| 3. | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | 100.0 % (A/B) |
| 4. | | | | | |
| Total Cover: | | | 15 % | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | |
| 1. <i>Baccharis salicifolia</i> | 5 | Yes | FAC | Total % Cover of: | Multiply by: |
| 2. | | | | OBL species | 30 x 1 = 30 |
| 3. | | | | FACW species | 15 x 2 = 30 |
| 4. | | | | FAC species | 5 x 3 = 15 |
| 5. | | | | FACU species | x 4 = 0 |
| Total Cover: | | | 5 % | UPL species | x 5 = 0 |
| | | | | Column Totals: | 50 (A) 75 (B) |
| Herb Stratum | | | | Prevalence Index = B/A = 1.50 | |
| 1. <i>Typha domingensis</i> | 30 | Yes | OBL | Hydrophytic Vegetation Indicators: | |
| 2. | | | | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 3. | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| 4. | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 5. | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 6. | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| 7. | | | | Hydrophytic Vegetation Present? | |
| 8. | | | | Yes <input checked="" type="radio"/> No <input type="radio"/> | |
| Total Cover: | | | 30 % | | |
| Woody Vine Stratum | | | | | |
| 1. | | | | | |
| 2. | | | | | |
| Total Cover: | | | % | | |
| % Bare Ground in Herb Stratum | | | 70 % | % Cover of Biotic Crust % | |

Remarks: The sample area is dominated with herbaceous obligate vegetation and has a canopy of willows that overhangs into the sample area.

SOIL

Sampling Point: 6.1

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-10 | Gley 1 310Y | 100 | | | | | sand | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☒ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: The soil sample had a strong hydrogen sulfide smell; that was the only indicator that was observed within the sample area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☒ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☒ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☒ No ☐

Depth (inches): 2

Water Table Present? Yes ☒ No ☐

Depth (inches): At Surface

Saturation Present? Yes ☒ No ☐
(includes capillary fringe)

Depth (inches): At Surface

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: The sample area had three primary wetland hydrology indicators within the sample area.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Carlton Oaks Project City/County: Santee/San Diego Sampling Date: 4/17/2019
 Applicant/Owner: Lennar Corp. State: CA Sampling Point: 6.2
 Investigator(s): Lanika Cervantes and Nicole Salas Section, Township, Range: Undefined
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR): C - Mediterranean California Lat: 32.838422 Long: -117.012295 Datum: NAD 1963
 Soil Map Unit Name: Riverwash NWI classification: Undefined

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | | | |
|---|---------------------------|-------------------------------------|--|---------------------------|-------------------------------------|
| Hydrophytic Vegetation Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Is the Sampled Area within a Wetland? | Yes <input type="radio"/> | No <input checked="" type="radio"/> |
| Hydric Soil Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Wetland Hydrology Present? | Yes <input type="radio"/> | No <input checked="" type="radio"/> | | | |
| Remarks: Sample Area 6.2 is approximately 3 feet higher in elevation than Sample Point 6.1. | | | | | |

VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|---------------------|----------------------|---------------------|---|------------------------------|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>0</u> (A) |
| 2. _____ | | | | Total Number of Dominant Species Across All Strata: | <u>3</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>0.0</u> % (A/B) |
| 4. _____ | | | | | |
| Total Cover: | <u> </u> % | | | | |
| Sapling/Shrub Stratum | | | | Prevalence Index worksheet: | |
| 1. _____ | | | | Total % Cover of: | Multiply by: |
| 2. _____ | | | | OBL species | x 1 = <u>0</u> |
| 3. _____ | | | | FACW species | x 2 = <u>0</u> |
| 4. _____ | | | | FAC species | x 3 = <u>0</u> |
| 5. _____ | | | | FACU species | x 4 = <u>140</u> |
| Total Cover: | <u> </u> % | | | UPL species | x 5 = <u>100</u> |
| Herb Stratum | | | | Column Totals: | <u>55</u> (A) <u>240</u> (B) |
| 1. <i>Hirschfeldia incana</i> | <u>20</u> | <u>Yes</u> | <u>Not Listed</u> | Prevalence Index = B/A = <u>4.36</u> | |
| 2. <i>Ambrosia psilostachya</i> | <u>20</u> | <u>Yes</u> | <u>FACU</u> | | |
| 3. <i>Lepidium virginicum</i> | <u>15</u> | <u>Yes</u> | <u>FACU</u> | | |
| 4. _____ | | | | | |
| 5. _____ | | | | | |
| 6. _____ | | | | | |
| 7. _____ | | | | | |
| 8. _____ | | | | | |
| Total Cover: | <u>55</u> % | | | | |
| Woody Vine Stratum | | | | Hydrophytic Vegetation Indicators: | |
| 1. _____ | | | | <input checked="" type="checkbox"/> Dominance Test is >50% | |
| 2. _____ | | | | <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ | |
| | | | | <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| | | | | ¹ Indicators of hydric soil and wetland hydrology must be present. | |
| | | | | Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> | |
| Total Cover: <u> </u> % | | | | | |
| % Bare Ground in Herb Stratum <u>45</u> % % Cover of Biotic Crust <u> </u> % | | | | | |

Remarks: The sample area is dominated with herbaceous upland vegetation.

SOIL

Sampling Point: 6.2

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-7 | 10YR 3/2 | 100 | - | | | | Sandy | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: No hydric soil indicators were observed within the sample area.

HYDROLOGY

Wetland Hydrology Indicators:**Primary Indicators (any one indicator is sufficient)**

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Thin Muck Surface (C7)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: No primary nor secondary wetland hydrology indicators were observed within the sample area.

RGL 16-01 Approved JD Request

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Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: _____
(Street Address)
City/Township/Parish: _____ County: _____ State: _____
Acreage of Parcel/Review Area for JD: _____
Section: _____ Township: _____ Range: _____
Latitude (decimal degrees): _____ Longitude (decimal degrees): _____
(For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
☐ I am an agent/consultant acting on behalf of the requestor.
☐ Other (please explain): _____.
- Reason for request: (check as many as applicable)
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
☐ A Corps JD is required in order to obtain my local/state authorization.
☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
☐ I believe that the site may be comprised entirely of dry land.
☐ Other: _____
- Type of determination being requested:
☐ I am requesting an approved JD.
☐ I am requesting a preliminary JD.
☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: _____
Company name: _____
Address: _____

Daytime phone no.: _____
Email address: _____

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Approved Jurisdictional Determination



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
5900 LA PLACE COURT, SUITE 100
CARLSBAD, CALIFORNIA 92008

June 19, 2020

SUBJECT: Approved Jurisdictional Determination

Ryan E. Green
Lennar Corporation
16465 Via Esprillo, Suite 150
San Diego, California 92127

Dear Mr.Green:

I am responding to your request (File No. SPL-2019-00517) dated September 16, 2019 for an Approved Jurisdictional Determination (JD) for the Carlton Oaks Project Area (Review Area) located at 9200 Inwood Drive, within the city of Santee and San Diego, San Diego County, California (32.8397, -117.0101).

The Corps' evaluation process for determining whether a Department of the Army permit is needed involves two tests. If both tests are met, a permit would likely be required. The first test determines whether an aquatic resource located within the Review Area is within the Corps' geographic jurisdiction (i.e., it is within a water of the United States). The second test determines whether a project, as proposed, involves a regulated activity under Corps' authority (i.e., Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, or Section 103 of the Marine Protection Research and Sanctuaries Act). The determination in this letter pertains only to the question of geographic jurisdiction.

Based on available information, I have determined that waters of the U.S. are not present within the Review Area in the locations graphically depicted on the enclosed map entitled, "*Review Area: Excluded Resources Carlton Oaks Project*", and dated June 4, 2020 (Enclosure 1). The basis for this finding may be found on the enclosed Approved Jurisdictional Determination form (Enclosure 2).

This determination was conducted to identify the potential extent of the Corps' Clean Water Act jurisdiction within the Carlton Oaks Review Area identified in your request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

Thank you for participating in the regulatory program. If you have any questions, please contact me at (760) 602-4838 or via e-mail at Daniel.S.Grijalva@usace.army.mil.

Sincerely,

Kyle Dahl
Chief
San Diego and Imperial Counties Section

Enclosures

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

| | | | |
|--------------------------|--|--------------------------|------------------------|
| Applicant: Ryan E. Green | | File No.: SPL-2019-00517 | Date: February 3, 2020 |
| Attached is: | | | See Section below |
| | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) | A | |
| | PROFFERED PERMIT (Standard Permit or Letter of permission) | B | |
| | PERMIT DENIAL | C | |
| X | APPROVED JURISDICTIONAL DETERMINATION | D | |
| | PRELIMINARY JURISDICTIONAL DETERMINATION | E | |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/cecw/pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Daniel S. Grijalva
Regulatory Project Manager
U.S. Army Corps of Engineers
Los Angeles District
5099 La Place Court, Suite 100
Carlsbad, California 92008
Phone: 760-602-4836 , FAX 916-557-7803
Email: Daniel.S.Grijalva@usace.army.mil

If you only have questions regarding the appeal process you may also contact:

Thomas J. Cavanaugh
Administrative Appeal Review Officer
U.S. Army Corps of Engineers
South Pacific Division
1455 Market Street, 2052B
San Francisco, California 94103-1399
Phone: 415-503-6574, FAX 415-503-6646
Email: Thomas.J.Cavanaugh@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

| | | |
|---|-------|-------------------|
| <hr/> Signature of appellant or agent. | Date: | Telephone number: |
|---|-------|-------------------|



Memorandum

To: Daniel Grijalva, Senior Project Manager, Los Angeles District, Regulatory Division

From: Meris Guerrero
Sr. Manager, Environmental Regulatory Compliance

Date: December 3, 2019

Re: CARLTON OAKS PROJECT – APPROVED JD, EXCLUDED FEATURES (Corps File No. SPL-2019-00517-DSG)

This memorandum further supports the conclusions of the *Aquatic Resource Delineation Report for the Carlton Oaks Project* (ICF 2019) and provides additional justification further demonstrating the delineated golf course ponds and concrete v-ditch located on the Carlton Oaks Golf Course are excluded features (i.e., are not jurisdictional aquatic resources) as defined at 33 CFR 328.3. Three potential aquatic resources comprised of two golf course ponds (EW1 and EW2) and one concrete v-ditch (EW3) were identified and evaluated for USACE jurisdiction and determined not to be potential aquatic resources pursuant to section 404 of the Clean Water Act.

The two managed golf course ponds and concrete v-ditch are man-made, ornamental waters created on dry land for primarily aesthetic reasons for the existing Carlton Oaks golf course. EW2 and EW3 receive urban runoff and stormwater runoff originating from the northern residential development. The man-made v-ditch and western golf course pond are not an aquatic resource as the v-ditch and western pond are not a relocated tributary, excavated in a tributary, or drain wetlands. Additionally, EW1 is filled with non-potable water and is used to irrigate the golf course grounds.

Historical aeriels confirmed the three features were constructed in dry land. Prior to the construction of the golf course the San Diego River was leveed and re-routed to the south of the proposed project site in the 1960s. This converted the majority of the project site, including the areas inclusive of EW1, EW2, and EW3, to uplands (Attachment 1: Figure 1), and the surrounding area began to develop with residential homes and the golf course. The excluded waters were constructed into golf course ponds and the concrete v-ditch in the 1980s, where the site had been upland habitat since the re-routing of the San Diego River.

Per the 2015 Clean Water Rule (33 CFR 328.3(b)(4)(ii)) artificial, constructed lakes and ponds created in dry land are excluded by rule. Both the golf course ponds (EW1 and EW2) meet this definition and are therefore, not considered “waters of the United States”. Likewise, and in accordance with 33 CFR 328.3(b)(3) the concrete v-ditch (EW3) is a ditch that carries ephemeral flows and is not a relocated tributary and was not constructed in a tributary. Thus, EW3 is not considered a “waters of the United States”.

In conclusion, EW1, EW2, and EW3 are potential aquatic resources that were constructed in uplands and that meet one of the categories of excluded waters as defined at 33 CFR 328.3(b); therefore, EW1, EW2, and EW3 are not “waters of the United States” as regulated by the Clean Water Act. As such, an approved Jurisdictional Determination is requested to formally exclude these features from USACE Regulatory Jurisdiction (Attachment 2: RGL 16-01)

Attachments:

Attachment 1: Figure 1 – Excluded Ponds - 1968 Aerial

Attachment 2: RGL 16-01 – Approved JD Request

References:

Department of Defense and Environmental Protection Agency. 2015. *Clean Water Rule: Definition of “Waters of the United States”; Final Rule*. Federal Register, Vol. 80, No. 124. June 29, 2015.

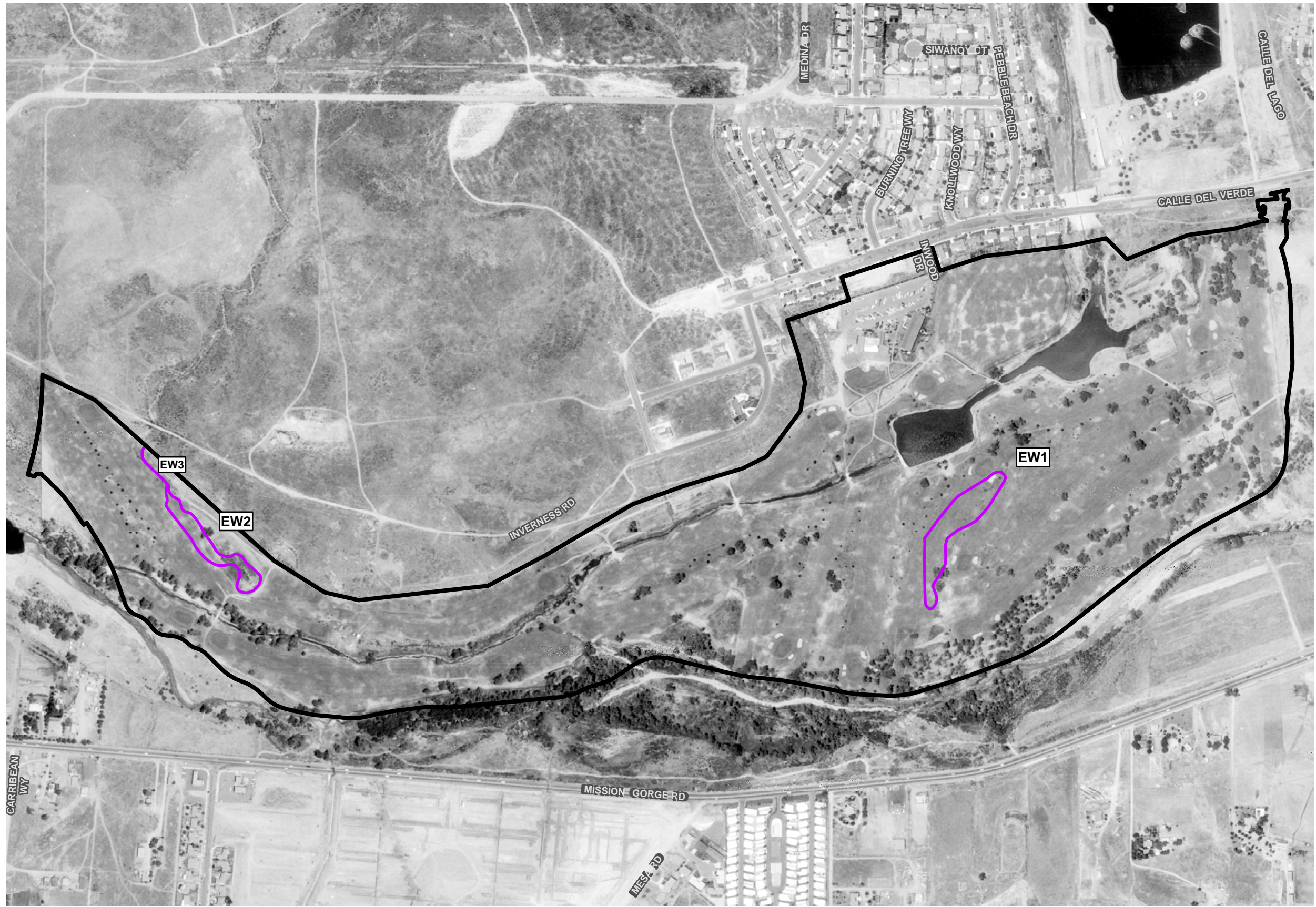
ICF. 2019. *Aquatic Resource Delineation Report for the Carlton Oaks Project*. September. Santee, CA. Prepared for Lenna Corporation.

National Environmental Title Research, LLC. *Historic Aerials*.
<https://www.historicaerials.com/viewer>. Accessed: November 2019.



Attachment 1
Figure 1

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\\PDC\ITRDSGIS2\Projects_3\Lennar\CarltonOaks_Residential\Figures\Doc\DR\Fig\XX_ExcludedPonds_1968Aerial.mxd User: 37937 Date: 11/29/2019



Legend

-  Delineation Area
-  Excluded Waters

Source: Historic Aerial 1968

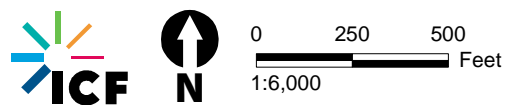


Figure 1
Excluded Ponds - 1968 Aerial
Carlton Oaks Project

Attachent 2

RGL 16-01 Approved JD Request

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Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: Carlton Oaks Country Club, 9200 Inwood Drive
(Street Address)
City/Township/Parish: Santee County: San Diego State: CA
Acreage of Parcel/Review Area for JD: _____
Section: _____ Township: 15S Range: 1W
Latitude (decimal degrees): 32.839713 Longitude (decimal degrees): -117.010112
(For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
☒ I am an agent/consultant acting on behalf of the requestor.
☐ Other (please explain): _____
- Reason for request: (check as many as applicable)
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
☒ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
☐ A Corps JD is required in order to obtain my local/state authorization.
☒ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
☐ I believe that the site may be comprised entirely of dry land.
☐ Other: _____
- Type of determination being requested:
☒ I am requesting an approved JD.
☐ I am requesting a preliminary JD.
☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: Meris Guerrero Date: 09/16/2019

- Typed or printed name: Meris Guerrero
Company name: ICF
Address: 525 B Street, Suite 1700, San Diego, CA 92101
Daytime phone no.: 858-444-3953
Email address: meris.guerrero@icf.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Conceptual Habitat Mitigation and Monitoring Plan

HABITAT MITIGATION AND MONITORING PLAN CARLTON OAKS COUNTRY CLUB AND RESORT

**CITY OF SANTEE PROJECT #'S: TM2019-1; R2019-1; DR2019-5
CITY OF SAN DIEGO PROJECT #: 648381**

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January 2025



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Acronyms and Abbreviations

| | |
|--------------|--|
| BMP | best management practice |
| BSA | biological study area |
| Carlton Oaks | Carlton Oaks Golf Course |
| CCR | Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CLOMR | Conditional Letter of Map Revision |
| CNDDB | California Natural Diversity Data Base |
| CNPS | California Native Plant Society's |
| CRPR | California Rare Plant Rank |
| CWA | Clean Water Act |
| ESA | Endangered Species Act |
| FEMA | Federal Emergency Management Agency |
| FGC | California Fish and Game Code |
| FR | <i>Federal Register</i> |
| GIS | geographic information system |
| GPS | global position system |
| HMMP | Habitat Mitigation and Monitoring Plan |
| HUC | Hydrologic Unit Code |
| JRMP | Jurisdictional Urban Runoff Management Program |
| Lennar | Lennar Homes |
| MHPA | Multi-Habitat Planning Area |
| MM | Mitigation Measure |
| NHD | National Hydrography Dataset |
| NPPA | California Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| NWW | Non-Wetland Water |
| OHWM | Ordinary High Water Mark |
| Owner | Lennar and Carlton Oaks |
| PDMWD | Padre Dam Municipal Water District |
| PEP | plant establishment period |
| RWQCB | Regional Water Quality Control Board |
| SSURGO | Soil Survey Geographic |
| SWPPP | Storm Water Pollution Prevention Plan |
| USACE | U.S. Army Corps of Engineers |
| USGS | U.S. Geological Survey |
| WoS | waters of the State |
| WoUS | waters of the United States |
| WW | Wetland Water |

1.1 Project Summary

This Habitat Mitigation and Monitoring Plan (HMMP) provides direction for implementing onsite mitigation for permanent impacts to jurisdictional waters and restoration activities associated with the proposed plan by the Lennar Homes and Carlton Oaks Golf Course to redevelop the Carlton Oaks Country Club into a resort with residential accessory uses (the proposed project). The proposed project would include a redesign of the existing Carlton Oaks golf course, construction of residential accessory uses consisting of two residential neighborhoods; redevelopment of the hotel and clubhouse features, including a pro shop, learning center, and roadway and utility infrastructure improvements.

This HMMP provides the following.

- The location and baseline conditions of the project site
- Proposed types and locations of onsite mitigation for permanent impacts
- Plans for the restoration of temporary impacts associated with the project
- Plant species, container sizes, planting densities, and seeding rates
- A description of proposed irrigation methodologies
- Measures to control exotic vegetation in the project area
- A detailed vegetation monitoring program
- Specific success criteria
- Identification of the party responsible for meeting the success criteria
- Adaptive-management strategies to be implemented if the site is not meeting success criteria

1.2 Project Site Location and Description

The proposed project is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway. The proposed project consists of approximately 165 acres of land located within the City of Santee and the City of San Diego (Figure 1). The proposed project is adjacent to State Route 52 and Carlton Oaks Drive. The project site is in Township 15S, Range 1W of the U.S. Geological Survey (USGS) La Mesa 7.5-minute quadrangle map (USGS 2018). The proposed project is located approximately at 32.839713°N, 117.010112 °W (Figure 2).

The project site includes the proposed residential development as well as the golf course redesign and avoided wetlands (Figure 3). The project area is bound by residential housing to the north and by Carlton Oaks Drive on the northeast boundary. The 190-acre Santee Lakes Recreation Preserve is situated across Carlton Oaks Drive, consisting of several fish-stocked lakes, campgrounds, and semi-natural areas.

The proposed project site is currently operating as the Carlton Oaks Country Club with an existing golf course, golf driving range, clubhouse, restaurant/bar, pro-shop, hotel, and hotel cottages. The golf course covers most of the project site, with the clubhouse and related structures located in the north-central portion of the project site. The golf course encompasses 145 acres, 18 holes, and has a total of 132 acres of irrigated turf. The golf course includes two human-made water features not associated with Sycamore Canyon Creek.

Carlton Oaks Golf Course (Carlton Oaks) and Lennar Homes (Lennar), as joint project proponents, are proposing to redevelop the existing Carlton Oaks Country Club into a resort with residential accessory uses (proposed project). The proposed project would include a redesign of the existing Carlton Oaks golf course which will include the following on approximately 165 acres: residential accessory uses consisting of two residential neighborhoods with open space areas; a hotel and associated cottages; an improved golf course clubhouse and pro shop, golf course and practice area, and learning center structure. Additionally, approximately 3.5 acres outside of the project site in the City of Santee and City of San Diego will be developed with improvements associated with the project (offsite improvement areas). The offsite improvement areas and the proposed project site make up the California Environmental Quality Act (CEQA) Study Area, which is approximately 169 acres (Figure 3).

The proposed project includes the demolition of the existing Carlton Oaks golf course clubhouse, restaurant/bar, pro shop, hotel and hotel cottages, and surface parking lots; construction of new residential accessory uses and a resort facility; and redevelopment of the golf course and construction of new residential accessory uses. The proposed project components include a professionally redesigned and publicly accessible golf course, clubhouse, and hotel/cottages. Residential homes are also planned as an accessory use to the golf course and the Carlton Oaks Country Club. The residential components of the proposed project would be constructed in the western and northern portions of the project site (Residential West and Residential North, respectively). Certain components of the proposed project, including the pro shop, cart barn, bridge, and northeastern emergency vehicle access road, would be constructed first and serve as an interim clubhouse. This would allow the golf course to be operational while the rest of the proposed project is being constructed.

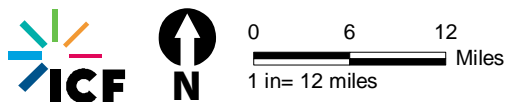
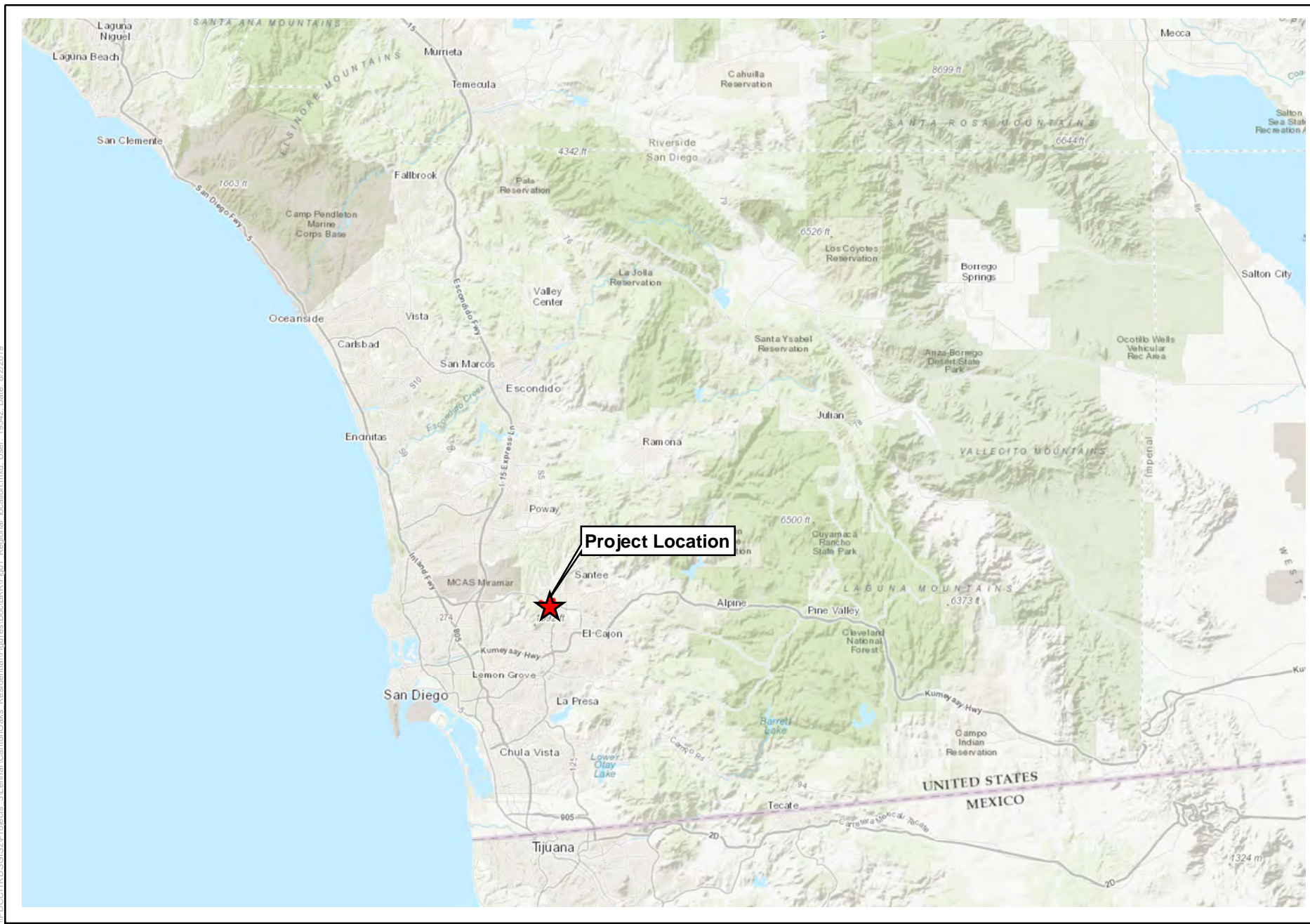
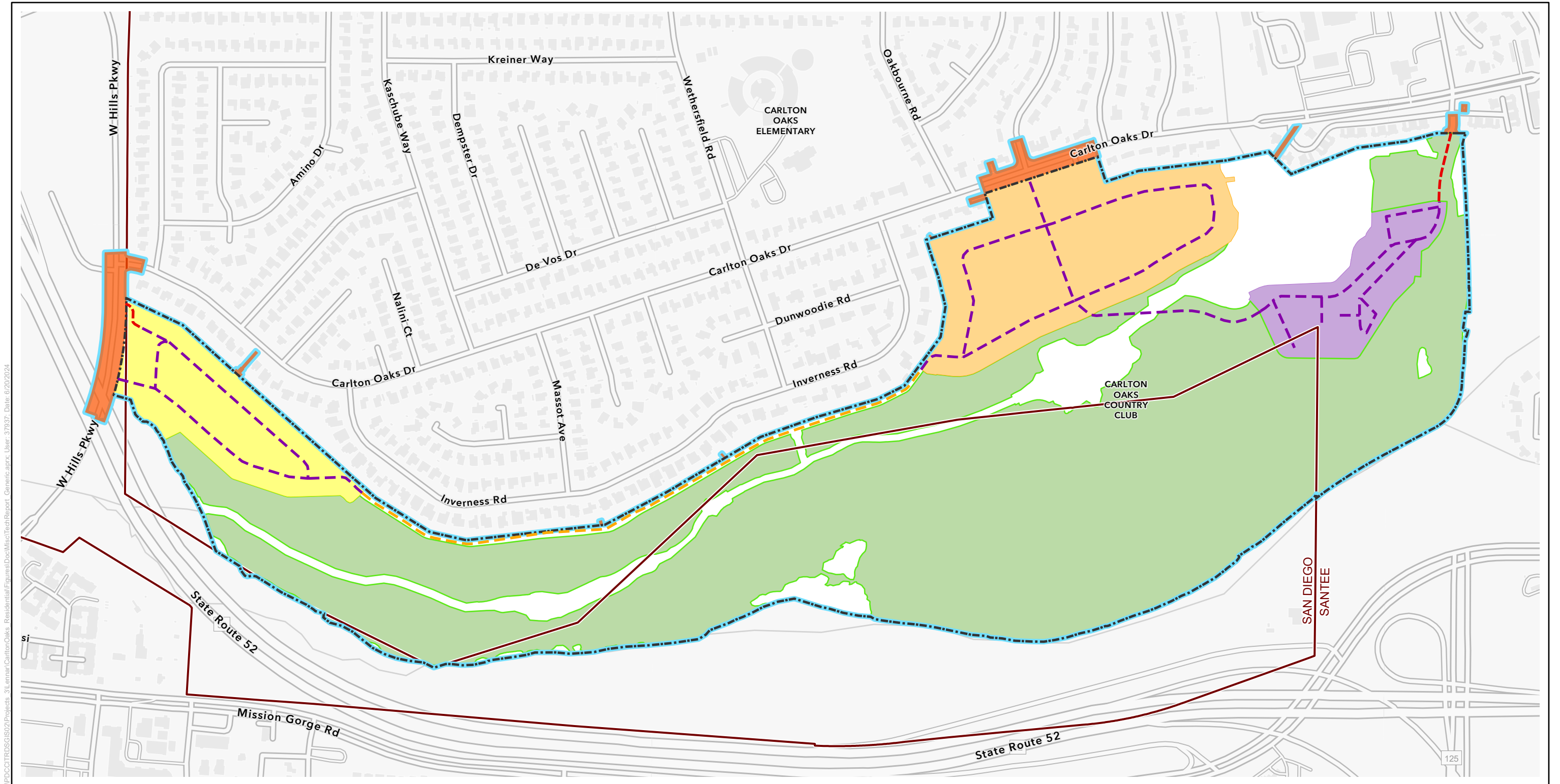


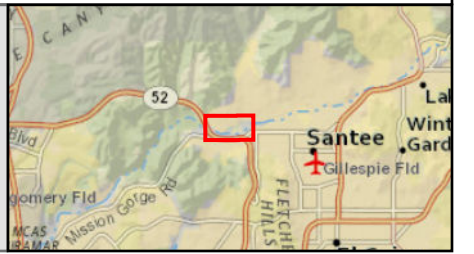
Figure 1
Regional Location

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Source: Site Plan-Hunsaker & Associates (2024)

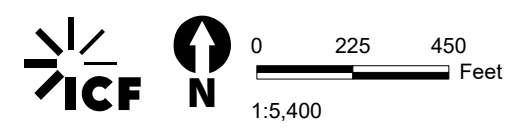


Figure 3
Proposed Project
Carlton Oaks Country Club and Resort

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1.2.1 Proposed Project Golf Course Redesign

The proposed project would redesign the existing 145-acre, 18-hole golf course to provide an improved experience for the users of the Carlton Oaks Country Club and Resort. The redesigned golf course would cover approximately 104 acres, and would provide 18 holes, similar to the existing course. The length of the golf course would be reduced from approximately 7,300 yards to 6,450 yards to provide a more engaging golfing experience. Under the current existing conditions, the golf course has a total of approximately 132 acres of turf irrigation with a 30-year-old block type irrigation system. The new course design would only have approximately 66 acres of turf irrigation (a 50 percent reduction) and would utilize a new modern irrigation system with individual head controls and native plantings.

The proposed golf course would reshape the existing manufactured ponds on the golf course and the existing maintenance facility in the eastern portion of the project site will remain in its current location. The existing drainage patterns and facilities would be updated within the golf course to improve flow and reduce the accumulation of surface water on the site during rain events. The golf course would retain more than 15 acres of existing natural areas on the site, which would remain untouched throughout construction. The remaining out-of-play areas around the golf course would be planted with native grasses and smaller shrubs native to the region, which would be selected to require little or no maintenance. There are a number of riparian areas within the project site, providing an environment for native birds, small animals, and aquatic plant and animal species. These areas are planned to be avoided and retained in their current condition.

In addition to the golf course, the Carlton Oaks Golf Course owner would develop several golf amenities including a pro shop, cart barn, and a golf cart waiting area on the eastern end of the golf course, northeast of the golf resort, as well as two practice areas. A golf learning center structure would also be developed northeast of the pro shop. The existing maintenance buildings would remain on site in their current location. A new shared surface parking lot would provide parking spaces for users of the golf course, clubhouse, and hotel.

1.2.2 Resort Facility

The clubhouse and hotel would consist of cottage-style hotel units, hotel rooms, a restaurant, event space, and other amenities. The outdoor space of the clubhouse would consist of an outdoor swimming pool and deck area, a patio, and a courtyard.

1.2.3 Residential Component

The proposed residential development would be clustered into two areas: Residential West (multi-family detached homes) and Residential North (multi-family detached homes and six single-family, single-story lots). All residential development would be accessible through privately maintained internal streets (collectively referred to as *residential development*).

1.2.3.1 Residential West

- Eighty-six detached multi-family residential units (with a density of 9.0 units per acre)
- Approximately 0.25 acre of designated common usable open space

- Flowering accent trees, community shade trees, shrubs, and groundcovers for private yards, as well as shrubs and groundcovers for public green space

Also, a Padre Dam Municipal Water District public water main would be extended from West Hills Parkway into Residential West, crossing the proposed landscape easement.

1.2.3.2 Residential North

- One hundred and fifty detached multi-family residential units (with a density of 8.2 units per acre.
- Six single-family lots fronting Carlton Oaks Drive which will allow for single-story homes on minimum 6,000-square-foot lots. Five of the single-family homes within the Planned Development zone will have a minimum of 6,000-square-foot lots and one single-family home located within the R-2 zone will meet the requirements for the underlying R-2 zone.
- One existing home located at 9225 Inwood Drive has also been included within the project area to allow for minor driveway modifications. No changes to this structure are proposed.
- Approximately 0.49 acre of designated common usable open space.
- Flowering accent trees, community shade trees, accent trees, shrubs and ground cover for slopes, private yards, and public green space.
- Potable water would be connected to an existing main line in Carlton Oaks Drive and extended into the Residential North area of the project site.

1.2.4 Landscaping

There would be a 0.439-acre landscape easement between West Hills Parkway and the western end the Residential West development area, within the project boundary. The proposed landscaping would require an easement from the City of San Diego; the easement area falls within the jurisdiction of both City of San Diego and City of Santee.

1.2.5 Access Points

Access to Residential West would include a private driveway off the east side of West Hills Parkway that would require access easements across two parcels owned by the City of San Diego; these parcels cross both City of San Diego and City of Santee jurisdictions. The proposed easements would allow private and emergency access onto the proposed subdivision.

Residential North and the resort would be accessed from Carlton Oaks Drive at the intersection with Burning Tree Way, approximately 200 feet west of the existing hotel access road (Inwood Drive). Inwood Drive would be closed and replaced with curb and sidewalk. Additionally, six existing driveway aprons along the project frontage would be closed and replaced with curb and landscaping. A private utility maintenance road would be provided between Residential North and Residential West. Access to the golf course and resort would be provided by a private drive through Residential North from Carlton Oaks Drive southerly via a new bridge across the San Diego River (North Channel). While the new bridge is under construction, a temporary rail car crossing would be placed at an existing cart path crossing west of the new bridge to provide vehicular access to the golf course. The temporary rail car crossing would be replaced with a permanent cart path crossing once construction is complete.

Also, a 26-foot-wide private emergency access road would be provided through the existing Vista del Verde condominiums located in the northeastern corner of the project site. This emergency access would comply with the City of Santee Fire Department requirements and would be for the proposed project only and would not be open to the public. A new fence with an emergency access gate will also be erected between buildings of the existing adjacent condominium complexes. A private emergency access road would be provided in the northern corner of Residential West from West Hills Parkway.

1.2.6 Project Trail Segments

A multipurpose public trail will be provided on the property on the north side of the San Diego River; it will link with existing and planned trails east and west of the site (Project Trail Segment). A portion of the Project Trail Segment on the east side of the project site will begin at the entrance to Residential North at Carlton Oaks Drive, traverse through the resort and along the southeastern border of the project, and end slightly west of the jurisdictional line between the City of Santee and the City of San Diego. This portion of the trail will link to the existing Mast Park West Trail as well as the future planned trail known as the Carlton Oaks Golf Course Segment.

A portion of the Project Trail Segment on the west side of the project site will begin at the Santee jurisdictional line and end at the property line (Station 38+60). This portion of the trail will link to the future planned trail known as the Carlton Oaks Golf Course Segment.

Along the Residential West boundary, a graded bench (located within the Carlton Oaks Golf Course Segment) would also be provided within the easement areas that will be granted to the applicant by the City of San Diego as a part of this project.

In addition to the proposed trail alignment currently proposed through Residential North and the County Club and Resort Area, a supplemental trail offer of dedication is shown on the applicant's map should the City request this supplemental trail alignment. The supplemental trail offer of dedication starts from an area east of the Country Club and Resort parking lot to the property line of the Vista del Verde community. If the City of Santee were to request this supplemental segment, then the applicant will agree to dedicate the trail alignment and construct this trail at a later date if the City determines that it desires to build this trail in the future.

1.2.7 100-Year Floodway Improvements

The project site is located within the regulatory limits of the San Diego River (floodplain and floodway) and receives runoff from Sycamore Canyon Creek (Santee Lakes) channel, San Diego River (North Channel) as well as several storm drain outfalls from the existing developments along Carlton Oaks Drive and Mast Boulevard roadway corridors. In addition, runoff from Forester Creek joins the San Diego River (South Channel) along the southeasterly limits of the property.

The proposed grading for the clubhouse, hotel, and golf course would occur within the regulatory floodway. Development associated with the proposed project would include elevating the grade of the clubhouse and hotel development area above the floodplain. The grading for portions of the residential development areas would be within the existing floodplain limits. A small portion of the Residential North development encroaches into the existing floodplain. A Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision would be processed through the Federal Emergency Management Agency (FEMA) to revise the flood mapping at the project site due to the proposed

alteration of the floodway. A CLOMR would need to be approved by FEMA, the City of Santee, and the City of San Diego prior to the issuance of a grading permit for the project. The CLOMR would remove proposed structures from the floodplain and floodway and demonstrate that, if built as proposed, the project would meet minimum local and federal regulations.

1.2.8 Stockpiling Sites

The project will require the import of soil to raise the proposed resort, hotel and residential development out of the FEMA mapped floodplain. This import of soil will most likely take place over an extended period of time prior to the start of grading.

One temporary disposal site for the stockpiling of soil is proposed. The disposal site will be located on the eastern side of the project site within the current golf course driving range and would accommodate the import of approximately 279,020 cubic yards. The eastern import access will be from Inwood Drive and be provided with temporary best management practices (BMPs) for sediment and erosion control.

To comply with federal and state water quality regulations, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared during the Final Engineering Phase for the project to design and implement the required and effective temporary sediment and erosion control BMPs. This will be in compliance with the 2022 Construction Stormwater General Permit, Order 2022-0057-DWQ, City of Santee requirements as outlined in the City of Santee's Guidelines for Surface Water Pollution Prevention dated June 2015, the City of Santee Jurisdictional Urban Runoff Management Program (JRMP) dated July 2021, the City of San Diego Stormwater Standards dated May 2021, and the City of San Diego JRMP dated January 2024. The site will not be disturbed prior to having an SWPPP with an approved Notice of Intent and an effective waste discharge identification number.

1.2.9 Offsite Improvements

The following offsite improvements would be required as part of the implementation of the project.

1. **Emergency Vehicle Access:** The project will include the construction of a 26-foot-wide emergency vehicle access roadway, from the Vista del Verde community south to the golf course property and the developed portion of the resort. One parking spot on the Vista del Verde property may be removed but will be relocated within that property. The project also includes installation of a motorized gate and replacement of the existing chain link fence with a steel tubular fence on the boundary of the golf course property.
2. **West Hills Parkway:** West Hills Parkway will be widened within the existing right-of-way from Carlton Oaks Drive to approximately 700 feet south to the existing bridge to provide a dedicated left-turn lane into Residential West. New striping will include a striped median and increased width for bike lanes. Trees are proposed on both sides of West Hills Parkway to provide source control of stormwater, limit stormwater transport and pollutant conveyance to the collection system, restore predevelopment hydrology to the extent possible, and provide environmentally enhanced roads. This work would be located within the City of San Diego's jurisdiction and therefore would follow their standards.
3. **Extension of a Padre Dam Municipal Water District (PDMWD) Public Water Main:** A PDMWD water main would be extended from Carlton Oaks Drive south along West Hills

Parkway and into Residential West to provide a connection to the proposed private water system.

4. **Access to Residential North and the Resort Area:** Access to these areas would be provided by Carlton Oaks Drive at the intersection with Burning Tree Way. This access point is approximately 200 feet west of the existing hotel access road (Inwood Drive). Inwood Drive will be closed and replaced with curb and sidewalk. Additionally, six existing driveway aprons along the project frontage will be closed and replaced with curb and landscaping along with other miscellaneous frontage improvements such as overhead power undergrounding and landscaping. Overhead power undergrounding would extend north of Carlton Oaks Drive. Potable and recycled water would be connected to existing main lines in Carlton Oaks Drive and extended into the project.
5. **Drainage Improvements:** Existing drainage pipes discharge to the golf course at five locations along the north subdivision boundary. All improvements will be constructed in a manner that will maintain the existing flow and drainage patterns.
 - a. *An existing 42-inch storm drain discharges to the site from a headwall located approximately 15 feet offsite, within a public easement (City of Santee) on an existing residential lot (Lot 17 of Map 4402).* The offsite flows will be picked up onsite by proposed storm drain improvements and discharged into the San Diego River (North Channel).
 - b. *An existing 27-inch storm drain extends onto the project site from an existing residential lot (Lot 14 of Map 5417).* This pipe will be extended under the proposed access road to a new headwall and discharge onto the golf course.
 - c. *An existing 18-inch storm drain discharges to the site from a headwall located approximately 15 feet offsite within a public easement (City of Santee) on an existing residential lot (Lot 230 of Map 6973).* The offsite flows will be picked up onsite by proposed storm drain improvements and discharged into the San Diego River (North Channel).
 - d. *An existing 47-inch by 71-inch storm drain discharges to the site from a headwall located approximately 20 feet offsite within a public easement (City of Santee) on an existing residential lot (Lot 239 of Map 6973).* The offsite flows will be picked up onsite by proposed storm drain improvements and discharged onto the golf course.
 - e. *An existing 72-inch diameter storm drainpipe discharges to the site from the headwall located immediately offsite at the north property line of Residential West.* The existing headwall includes a large concrete energy dissipator and concrete channel. These storm drain facilities are located offsite on existing residential lots (Lots 679 and 680 of Map 7295) and within an existing public easement (City of Santee). The offsite flows will be picked up onsite by proposed storm drain improvements and discharged onto the golf course.
6. **Sewer Maintenance Hole Improvements:** Three existing sewer maintenance holes are located offsite within a PDMWD easement within the Vista del Verde condominium property. The need for engineered sewer maintenance hole liners will be determined in the project design phase. All work will be limited to the public easement area.

1.3 Mitigation and Restoration Obligations for Impacts to Jurisdictional Resources

A total of seven sensitive wetland/riparian vegetation communities will be permanently or temporarily affected by the proposed project as shown in Table 1 through Table 3, below.

The proposed project will result in permanent impacts to U.S. Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) jurisdictional resources due the construction of an emergency access pathway for the new golf clubhouse, and the construction of Residential North. Temporary impacts also will occur during the dewatering of a pond to allow the construction of a bridge for vehicular traffic, and adjacent to the permanent impacts from the construction of the emergency access road (Table 4 and Table 5).

Mitigation for permanent wetland and jurisdictional impacts is planned through a combination of habitat enhancement of 2.54 acres of habitat within a large patch of Southern Cottonwood Riparian Forest northeast of the site and 1.25 acres along the San Diego River (North Channel), for a total of 3.79 acres of enhanced habitat and 0.42 acre of created habitat in two locations along the San Diego River (North Channel), of which 0.34 acre is jurisdictional vegetated wetland and 0.09 acre is riparian vegetation (Table 1–Table 3, Figure 4). The creation of new wetland habitats in suitable floodplain areas adjacent to the San Diego River (North Channel) is required to meet USACE no-net-loss requirements. The remainder of the mitigation would occur through enhancement of existing degraded riparian areas within avoidance areas on the project site. The mitigation proposed is expected to meet requirements for permanent and temporary impacts to USACE/RWQCB and CDFW jurisdictional habitat which may be affected by the project (Table 4–Table 7).

Mitigation for upland habitats is planned through the purchase of credits from a mitigation bank, and is therefore not discussed in this HMMP.

Table 1. Proposed Mitigation for Permanent Impacts to Wetland and Riparian Vegetation Communities

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Permanent Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|--------------------------------|---|---|-----------------------------|--|
| City of Santee ¹ | Disturbed Wetland | 0.12 | 2:1 | 0.24 |
| | Mule Fat Scrub (disturbed) | 0.34 | 3:1 | 1.02 |
| | Nonnative Riparian | 0.04 | 2:1 | 0.08 |
| | Southern Cottonwood– Willow Riparian Forest | 0.46 | 3:1 | 1.50 |
| | Southern Cottonwood– Willow Riparian Forest (disturbed) | 0.29 | 3:1 | 0.90 |
| | Project Totals | 1.30 | – | 3.74 |

¹ No impacts on wetlands or riparian habitat within City of San Diego.

Table 2. Proposed Mitigation for Temporary Impacts Along San Diego River (North Channel)

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Temporary Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|-----------------------------------|--|---|-----------------------------|---|
| City of Santee ¹ | Coastal and Valley Freshwater Marsh | 0.56 | 1:1 ² | 0.56 in situ |
| | Fresh Water (Open Water) | 2.43 | 1:1 | 2.43 in situ |
| | Nonnative Riparian | 0.05 | 1:1 | 0.05 in situ |
| | Southern Cottonwood– Willow Riparian Forest | 0.01 | 2:1 | 0.01 <i>in situ</i> + 0.01 enhancement |
| Project Totals² | | 3.05 | – | 3.05 <i>in situ</i> + 0.01 enhancement |

¹ No impacts on wetland or riparian habitat within City of San Diego.

² 1:1 mitigation for temporary impacts through re-watering of dewatered habitat at original location.

Table 3. Proposed Mitigation for Temporary Impacts within Golf Course Emergency Access Road Area

| Jurisdiction | Vegetation Community/ Land Cover Type | Total Temporary Impact (acres) | Mitigation Ratio | Total Mitigation Required (acres) |
|-----------------------------------|---|---|-----------------------------|---|
| City of Santee ¹ | Mule Fat Scrub (disturbed) | 0.02 | 2:1 | 0.02 <i>in situ</i> + 0.02 enhancement |
| | Southern Cottonwood– Willow Riparian Forest (disturbed) | 0.06 | 3:1 | 0.06 <i>in situ</i> + 0.12 enhancement |
| Project Totals² | | 0.08 | – | 0.08 <i>in situ</i> + 0.14 enhancement |

¹ No impacts on wetland or riparian habitat within City of San Diego.

² 1:1 mitigation for temporary impacts through re-watering of dewatered habitat at original location.

Table 4. Permanent Impacts on USACE/RWQCB Jurisdictional Waters (acres)

| Aquatic Resource | Permanent Impact¹ | Permanent Loss² |
|-------------------------------|-------------------------------------|-----------------------------------|
| <i>Clubhouse/Hotel</i> | | |
| NWW 1 | 0.570 | 0.000 |
| <i>Residential</i> | | |
| NWW 2 | 0.000 | 0.235 |
| NWW 3 | 0.000 | 0.003 |
| <i>Golf Course Redesign</i> | | |
| NWW 1 | 0.000 | 0.000 |
| NWW 5 | 0.000 | 0.051 |
| <i>Fuel Modification Zone</i> | | |
| NWW 5 | 0.005 | 0.000 |
| Total | 0.575 | 0.289 |

¹ A permanent impact to an aquatic feature is where a permanent discharge of fill material (e.g., riprap) would occur, but the feature would retain some aquatic function.

² A permanent loss was designated to an aquatic feature where it would be converted to concrete or uplands, thereby eliminating any aquatic function. No impacts to wetland waters.

RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers.

Table 5. Temporary Impacts on USACE/RWQCB Jurisdictional Waters (acres)

| Aquatic Resource | Temporary Impact |
|---|-------------------------|
| <i>Golf Course Redesign</i> | |
| NWW 5 | 0.010 |
| <i>Temporary Impacts Along San Diego River (North Channel)</i> | |
| NWW 1 | 2.339 |
| <i>Temporary Impacts Within Golf Course Emergency Access Road</i> | |
| NWW5 | 0.024 |
| Total | 2.373 |

RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers.

Table 6. Permanent Impacts on CDFW Jurisdictional Resources (acres)

| Aquatic Resource¹ | Riparian | Unvegetated Stream | Vegetated Stream |
|-------------------------------------|-----------------|---------------------------|-------------------------|
| <i>Clubhouse/Hotel</i> | | | |
| NWW 1 | 0 | 0 | 0.206 |
| <i>Residential</i> | | | |
| NWW 1 | 0.012 | 0 | 0.008 |
| NWW 2 | 0 | 0 | 0.606 |
| NWW 3 | 0 | 0 | 0.006 |
| <i>Golf Course Redesign</i> | | | |
| NWW 1 | 0 | 0 | 0.018 |
| NWW 5 | 0.101 | 0 | 0.077 |
| <i>Fuel Modification Zone</i> | | | |
| NWW 5 | 0.035 | 0 | 0.008 |
| Total | 0.148 | 0 | 0.929 |

¹ No impacts to NWW 4.

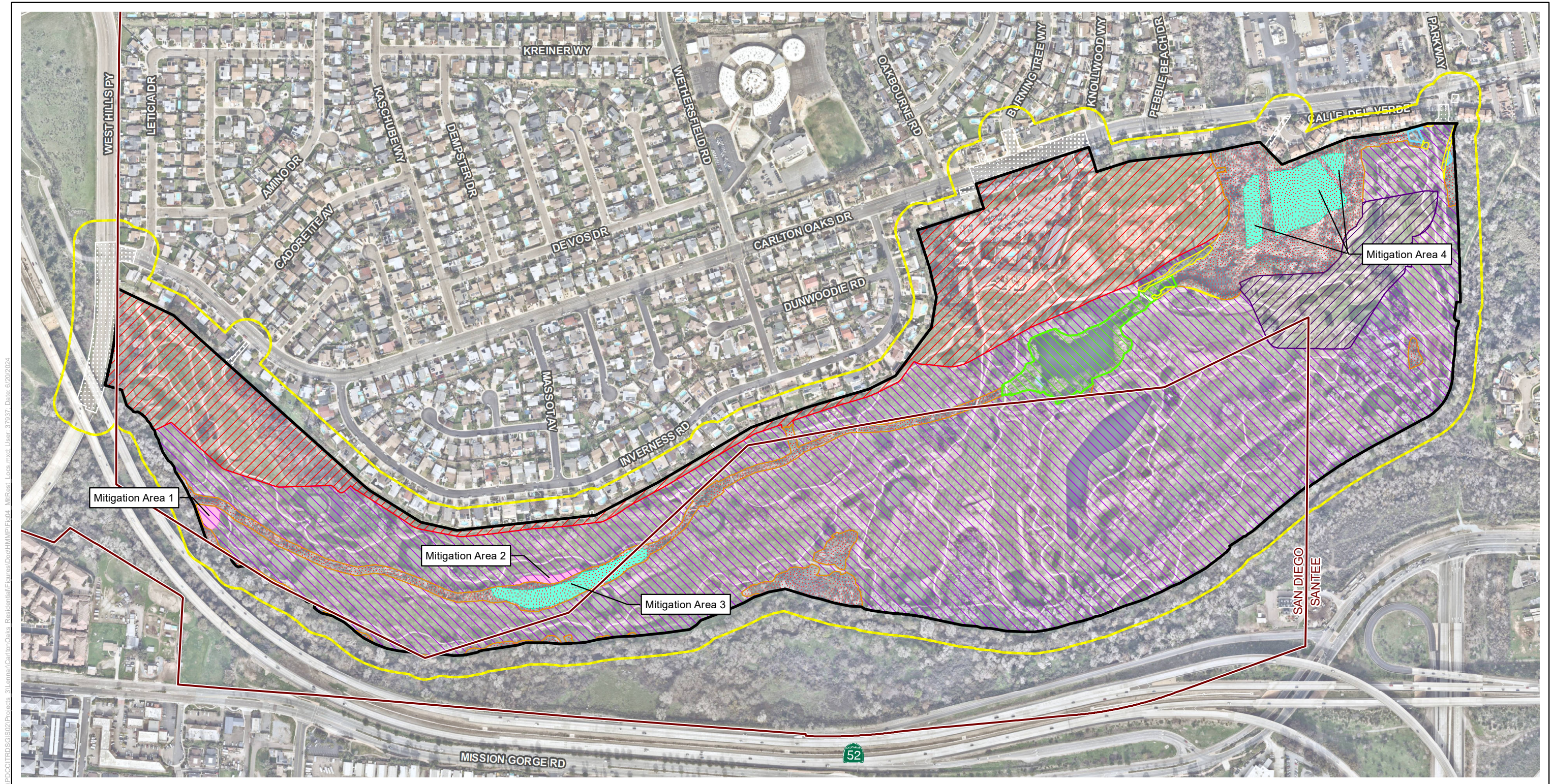
CDFW = California Department of Fish and Wildlife.

Table 7. Temporary Impacts on CDFW Jurisdictional Resources (acres)

| Aquatic Resource¹ | Riparian | Unvegetated Stream | Vegetated Stream |
|---|-----------------|---------------------------|-------------------------|
| <i>Golf Course Redesign</i> | | | |
| NWW 5 | 0.013 | 0 | 0.014 |
| <i>Temporary Impacts Along San Diego River (North Channel) (Dewatering)</i> | | | |
| NWW 1 | 0.068 | 2.355 | 0.722 |
| <i>Temporary Impacts Within Golf Course</i> | | | |
| NWW 5 | 0.014 | 0 | 0.036 |
| Total | 0.095 | 2.355 | 0.758 |

¹ No impacts to NWW 4.

CDFW = California Department of Fish and Wildlife.



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- | | | | |
|---|---|---|--|
| Project Site | Permanent Impact Mitigation - Habitat Enhancement | Permanent Impact: Clubhouse/Hotel/Other | Temporary Impacts Along Sycamore Creek |
| Biological Study Area | Permanent Impact Mitigation - Habitat Establishment | Permanent Impact: Residential | Temporary Impacts Within Golf Course |
| City of Santee/San Diego Municipal Boundary | | Permanent Impact: Golf Course Redesign | Avoidance Areas |
| | | Permanent Impact for Fuel Modification Zone | Offsite Areas |

Source: Hunsaker (2024); ICF (2024); Imagery-SANGIS (2023)

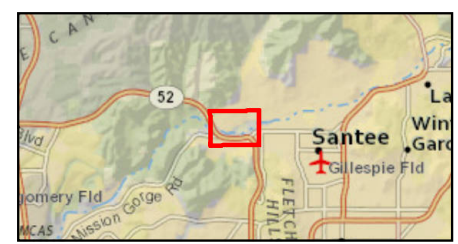
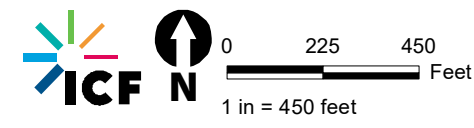


Figure 4
Proposed Mitigation and Restoration Locations
Carlton Oaks Country Club and Resort

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1.4 Responsible Parties, Roles, and Responsibilities

Lennar and Carlton Oaks would hold joint responsibility for the installation, maintenance, and monitoring of the proposed mitigation areas, in accordance with this HMMP. Lennar and Carlton Oaks' roles and responsibilities, as well as those of other involved parties, are summarized below. Additional details for each role are discussed throughout the document, where applicable.

1.4.1 Owner/Responsible Party

Lennar and Carlton Oaks, collectively referred to as *Owner*, will be the party financially responsible for: (1) all negotiations and costs associated with the restoration implementation; and (2) providing maintenance and monitoring until the restoration areas have achieved performance criteria. Alike, LLC, currently owns the project site.

The Owner will be responsible for contracting a qualified habitat restoration ecologist and a contractor(s) for installation, maintenance, and monitoring to carry out the provisions of this HMMP. The Owner may select separate contractors for the installation and maintenance phases and will establish contractual mechanisms to ensure the completion of installation, maintenance, and monitoring activities delineated in this HMMP. The Owner, with sole discretion, may replace any of these parties.

1.4.2 Restoration Ecologist

The restoration ecologist will be an individual or team of individuals with a degree in botany, ecology, or related field and a minimum of 10 years of experience in southern California in successful wetland restoration (preferably riverine). The lead restoration ecologist must have knowledge of the riverine vegetation associations proposed for the mitigation effort as well as the nonnative species of concern. The restoration ecologist, in coordination with the contractor, will oversee the implementation, and 5-year monitoring and maintenance of the mitigation sites.

The restoration ecologist will be responsible for the following.

- Supervising all phases of the restoration installation, including site protection, site preparation, planting installation, seeding, and final installation inspection and approvals, as delineated in this HMMP
- Halting work by the installation contractor at any point where the provisions of this HMMP are not being adhered to until such time when the inconsistency is resolved with the Owner
- Monitoring the during the 120-day plant establishment period (PEP) and facilitating the transition to the 5-year monitoring and maintenance period
- Monitoring and making remedial recommendations (regarding weeding, erosion control, etc.) for ongoing maintenance activities performed by the Maintenance Contractor, and annual reporting, as specified herein during the 5-year monitoring and maintenance period
- Documenting progress in the form of annual monitoring reports, and providing a final assessment of success at the end of the 5-year maintenance and monitoring program

1.4.3 Installation Contractor

The installation contractor will be a qualified person or firm with successful experience in southern California and direct experience installing and maintaining native habitat mitigation/restoration projects. The installation contractor will have the requisite knowledge, or subcontract with a qualified person or firm, to perform grading activities, and shall adhere to the grading plans for the project site with direction from the Restoration Ecologist. The installation contractor will be responsible for design of a temporary irrigation system (if desired) in consultation with the restoration ecologist, and any other work necessary to construct the mitigation project, including tree removal, site preparation and protection, clearing and grubbing, grading, planting and seeding, irrigation system design and installation, construction-phase weed management, preparation and implementation of an SWPPP, compliance with project permits, and completion of the 120-Day PEP. The responsibilities of the installation contractor will end with completion of the requirements for the 120-day PEP.

The Installation Contractor will verify in writing to the Owner. Prior to starting work the following minimum qualifications: a C-27 California Landscape Contractor's license, Qualified Applicator License, previous successful experience with at least three prior native habitat restoration project installations and enhancements of similar size and scope, and knowledge of local flora and fauna.

1.4.4 Maintenance Contractor

After the 120-day PEP, a separate maintenance contractor may be hired by the Owner to maintain the restoration site for the balance of the 5 years, according to the provisions of this HMMP. The Owner may choose to use the same contractor for the Installation Contractor and Maintenance Contractor roles, if the contractor meets both sets of qualifications. Prior to starting work, the Maintenance Contractor will demonstrate the same qualifications as the Installation Contractor, including demonstrating past maintenance experience from habitat restoration projects, previous successful experience maintaining at least three native restoration projects, and knowledge of local flora and fauna.

1.5 Regulatory Requirements and Compliance

This HMMP has been prepared in accordance with the 2008 Mitigation Rule and the associated guidelines outlined in the *Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines for South Pacific Division* (USACE 2015). This HMMP is being prepared to satisfy the mitigation and permitting requirements of the USACE, CDFW, and RWQCB.

Chapter 2

Objectives

The objective of this HMMP is to provide guidance on the in-situ restoration and mitigation of 3.05 acres of temporary impacts from dewatering a portion of the San Diego River (North Channel) (Table 2, above), in-situ restoration and mitigation of 0.08 acre associated with golf course access (Table 3), and onsite mitigation for 1.30 acres of permanent impacts to riparian vegetation communities and USACE and CDFW jurisdictional waters (Table 1 and Table 4–Table 7, above) and outline the steps necessary to ensure the long-term success of the mitigation areas.

The 3.13 acres of temporary impacts are associated with two distinct types of impacts, temporary dewatering of a pond associated with NWW-1 and temporary vegetation removal as part of the construction of an emergency access road for the proposed clubhouse (Figure 4). The temporary dewatering will affect 3.05 acres of habitat along the San Diego River (North Channel), consisting of 0.56 acre of freshwater marsh, 2.43 acres of open water, 0.05 acre of nonnative riparian vegetation, and 0.01 acre of southern cottonwood–willow riparian forest. The freshwater marsh, open water, and nonnative riparian will be passively restored by rewatering the habitat at the original location. The dewatering of 0.01 acre of southern cottonwood–willow riparian forest is proposed to be mitigated for by in-situ revegetation, and the enhancement of 0.01 acre of existing habitat in Mitigation Area 4. Vegetation removal as part of construction of an emergency access road for the clubhouse will temporarily impact 0.08 acre of habitat which are proposed will be mitigated through the restoration of 0.08-acre in-situ (i.e., the cleared areas will be revegetated), and the enhancement of 0.14 acre of existing habitat within Mitigation Area 3 to meet the City of Santee’s mitigation ratio requirements.

Mitigation for 1.30 total acres of permanent impacts on sensitive vegetation communities (Table 1) will take place through the enhancement of 3.79 acres of riparian vegetation associated with Sycamore Canyon Creek and the San Diego River (North Channel) in the northeast corner of the project site (Mitigation Areas 3 and 4, Figure 4), through implementation of a nonnative plant species removal program, and replacement of nonnative species with native container plants and cuttings. To meet the USACE requirements for no net loss of jurisdictional waters, 0.43 acre of new habitat will be established, consisting of 0.34 acre of jurisdictional waters and 0.9 acre of riparian habitat (Table 4, Mitigation Areas 1 and 2, Figure 4).

This document will recommend methods and best practices for the restoration of temporarily affected areas, the enhancement of existing vegetation within the habitat enhancement areas, and the creation of new habitat within the habitat creation areas. It will also lay out success criteria for the restoration, enhancement, and creation, as well as a 5-year monitoring and maintenance program and provide recommendations for management of the proposed onsite mitigation area in the future.

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Chapter 3

Baseline Information and Project Impacts

3.1 Methods

3.1.1 Literature Review

A literature review was conducted to evaluate the environmental setting of the project and to identify potential special-status biological resources that may be found on the site, or within a 10-mile radius. Pertinent sources reviewed include the following.

- CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019)
- California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants, 8th Edition (CNPS 2019)
- San Diego Plant Atlas (San Diego Natural History Museum 2019)
- USFWS Carlsbad Fish and Wildlife Office species occurrence data (USFWS 2018)
- SanBIOS sensitive species sightings (SANDAG 2019)
- National Wetlands Inventory (NWI) database (USFWS 2019)

Special-status biological resources were defined as plants, animals, and natural communities that met at least one of the following conditions.

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (Code of Federal Regulations [CFR], Title 50 § 17.12 [listed plants]); 50 CFR 17.11 (listed animals); and various notices in the *Federal Register* (FR) (proposed species)
- Species that are candidates for possible future listing as threatened or endangered under the ESA
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5)
- Plant species listed as rare under the California Native Plant Protection Act (NPPA) (California Fish and Game Code [FGC] 1900 et seq.)
- Species that meet the definitions of *rare* or *endangered* under CEQA (State CEQA Guidelines §§ 15380 and 15125)
- Animal species of special concern to the CDFW
- Animals that are *fully protected* in California (FGC §§ 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish])
- Species listed as having a California Rare Plant Rank (CRPR) of 1A (presumed extinct in California), 1B (rare, threatened, and endangered in California and elsewhere), or 2 (rare, threatened, or endangered in California, but more common elsewhere). CRPR List 1A, 1B, and 2

species are considered special-status plant species as defined in the NPPA, FGC Section 1901 or CESA, FGC Sections 2050–2098

Species considered CRPR List 3 (plants for which more information is needed [i.e., a review list]), or List 4 (plants of limited distribution [watch list]) (CNPS 2019). Many CRPR List 3 and List 4 species may not meet the definitions of special status as defined in the NPPA, FGC Section 1901, or CESA, FGC Sections 2050–2098, but are strongly recommended for consideration under CEQA (CNPS 2001).

The list of special status biological resources which were evaluated for potential to occur within the proposed project area can be found in Attachment 1.

3.1.2 Field Reconnaissance

Vegetation mapping and field surveys for special status species occurred in April through September of 2019, with an additional rare plant survey taking place during April and June of 2022. Surveys were performed throughout a larger biological study area (BSA), however only information pertinent to the potential project footprint is discussed in this plan.

3.2 Vegetation Communities

ICF botanists Shawn Johnston and Kelsey Dix conducted vegetation mapping within the BSA on April 24, 2019, by walking meandering transects and observing from selected vantage points that allowed 100 percent visual coverage of the BSA.

Vegetation communities were classified based on the dominant and characteristic plant species, in accordance with the Holland classification system (1986), as modified by Oberbauer et al. (2008). Vegetation mapping was completed with Apple iPad devices using the ESRI Collector application. Digital aerial imagery for the BSA was loaded into ESRI Collector, which allowed for the digital mapping of vegetation polygons over aerial imagery in the field.

Twelve vegetation communities were observed within the proposed project area, however of those twelve only eight will be permanently or temporarily affected by the project (Figure 5, Table 1–Table 3). Of the eight vegetation communities, the two upland communities (Diegan coastal sage scrub and nonnative grassland) are planned for mitigation through credit purchase and will not be discussed further in this document (see Mitigation Measure [MM] BIO-1 and MM BIO-2).

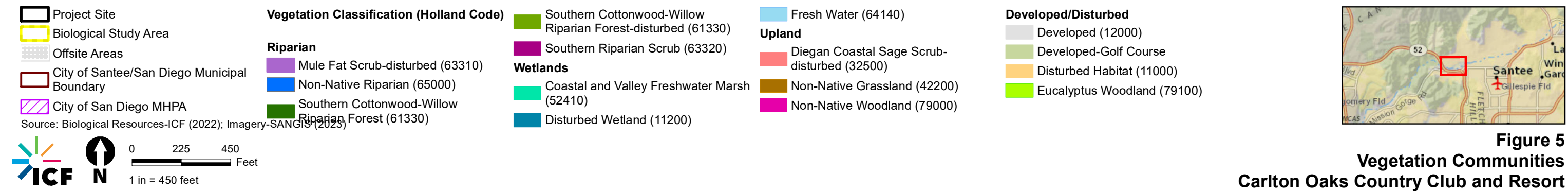
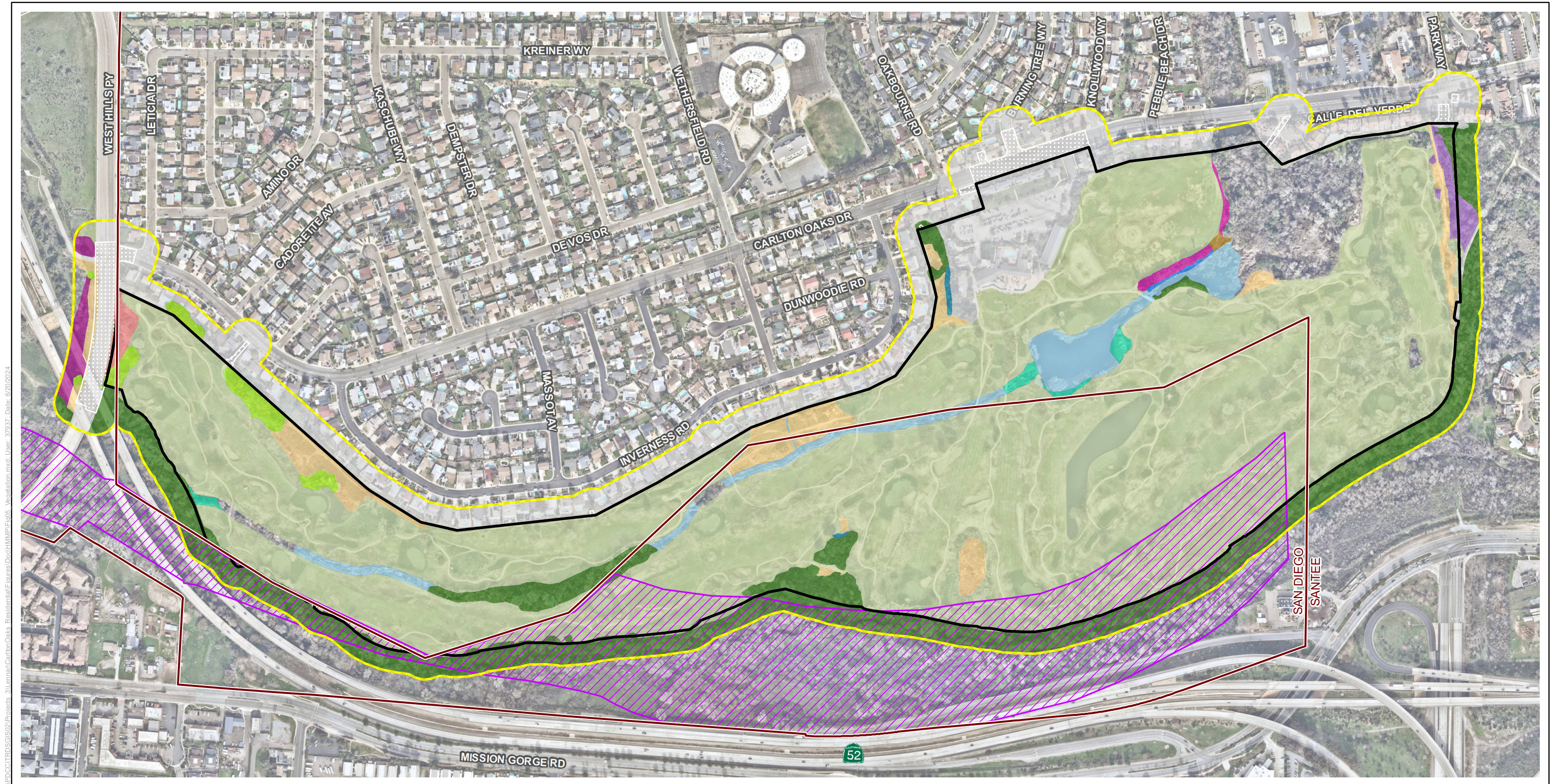


Figure 5
Vegetation Communities
Carlton Oaks Country Club and Resort

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3.2.1 Coastal Valley Freshwater Marsh (Oberbauer Code 52410)

Freshwater marsh communities are found in areas permanently inundated or flooded by fresh water, lacking significant current from water movement. Prolonged saturation in these communities allows for the accumulation of deep, peaty soils. Freshwater marshes are usually located in the coastal valleys near river mouths and around the margins of lakes and springs. Freshwater marsh is dominated by perennial, emergent monocots, typically ranging from 4 to 5 feet tall. Typically, species of cattails (*Typha* spp.) and bulrush (*Schoenoplectus* spp.) dominate this community.

This community is only expected to have temporary impacts associated with the proposed project due to the temporary dewatering of the pond it is located in. In the areas where temporary impacts are planned, this vegetation community is dominated by broad-leaved cattails (*Typha latifolia*), with the invasive floating water-primrose (*Ludwigia peploides*) and bulrushes also present. It is expected that after the pond is re-watered this community will return to its pre-construction state without any post-construction intervention, but the community will be monitored and adaptive management will take place as necessary if it appears that intervention is necessary (see Section 7.1, *Monitoring Program*, and Section 7.3, *Adaptive Management Plan*, for more details).

3.2.2 Disturbed Wetland (11200)

Disturbed wetlands are areas permanently or periodically inundated by water that have been significantly modified by human activity.

This community is associated with a storm drain outfall to the west of the existing golf course clubhouse which will be permanently affected by this proposed project. The disturbed wetland within the permanent impact area is dominated by cocklebur (*Xanthium strumarium*) and black mustard (*Brassica nigra*), with some Mexican rush (*Juncus mexicanus*) and western ragweed (*Ambrosia psilostachya*).

3.2.3 Fresh/Open Water (64140)

This community represents areas of year-round bodies of fresh water in the form of lakes, streams, ponds or rivers. These are areas of open water, and vegetation cover is usually less than 10 percent.

Within the proposed project area this community is primarily associated with sections of San Diego River (North Channel) that are too deep to support emergent wetland vegetation (freshwater marsh). Only temporary impacts are planned for this community. Temporary impacts are associated with the dewatering of one of the two large ponds in San Diego River (North Channel) to the southeast of the existing golf course clubhouse, and it is expected that this community return to the pre-construction state without any post-construction intervention.

3.2.4 Mule Fat Scrub – Disturbed (63310)

Mule fat scrub is a shrubby riparian scrub community dominated by mule fat (*Baccharis salicifolia*) and occasionally interspersed with small willows (*Salix* spp.). This vegetation community occurs along intermittent stream channels with a coarse substrate and moderate water depth, along areas

with shallow groundwater, or along areas that receive runoff from roads and other structures (Holland 1986). In some environments, limited hydrology may favor the persistence of mule fat.

Some permanent impacts to mule fat scrub are planned as part of the proposed project. Within the affected areas this community is characterized by mule fat with an understory of black mustard and field mustard (*Hirschfeldia incana*).

3.2.5 Nonnative Riparian (65000)

Nonnative riparian includes densely vegetated riparian thickets dominated by nonnative, invasive species. This community may include native riparian species but will have over 50 percent cover of nonnative species. This community often occurs in areas where disturbance has occurred and is extensive along the major rivers of coastal southern California. Nonnative riparian may include giant reed, tamarisk (*Tamarix* spp.), and/or eucalyptus, but will not have over 50 percent cover of those species. Other common invasive species include Mexican fan palm (*Washingtonia robusta*), Canary Island date palm (*Phoenix canariensis*), castor bean (*Ricinus communis*), and gum trees.

Only temporary impacts due to the de-watering of the nearby pond are anticipated to occur to nonnative riparian habitat as part of the proposed project. The temporarily affected areas are associated with a bank of San Diego River (North Channel) that is dominated by Mexican fan palm and myoporum (*Myoporum* spp.). It is not anticipated that this habitat will require post-construction intervention to return the site to pre-construction conditions, and the remainder of the required mitigation ratio will take place through the enhancement of habitat within a nearby mitigation area.

3.2.6 Southern Cottonwood–Willow Riparian Forest (61330)

Southern cottonwood–willow riparian forest is a tall, open, broadleaved, winter deciduous riparian forest dominated by Fremont's cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and red willow (*Salix laevigata*). Areas with the 'disturbed' moniker for this community represents areas with a more open, sparse understory of arroyo willow and nonnative grasses, lacking the diverse and dense canopy of southern cottonwood–willow riparian forest.

Both temporary and permanent impacts are planned as part of the proposed project. Within the planned impact areas, the community is dominated by large riparian trees such as Fremont's cottonwood, Goodding's black willow, and western sycamore (*Platanus racemosa*), with an understory of arroyo willow (*Salix lasiolepis*), mule fat, poison hemlock (*Conium maculatum*), poison oak (*Toxicodendron diversilobium*), rushes (*Juncus* spp.), flatsedge (*Cyperus eragrostis*), black mustard, field mustard, bromes, wild oats (*Avena barbata*), perennial ryegrass (*Festuca perennis*), and wild barley (*Hordeum murinum*).

3.3 Hydrology

3.3.1 Watershed Characteristics

The proposed project site lies within the Lower San Diego River watershed (Hydrologic Unit Code [HUC] 10: 1807030407) and contains the lower San Diego River and Forester Creek. These drainages are all characterized by vegetated streambeds and riparian habitats that run through urban areas. The southern boundary of the project site parallels the San Diego River (South

Channel). Sycamore Canyon Creek enters the site in the northeast merges with the San Diego River (North Channel), then traverses the existing golf course, joining the San Diego River in the southwest side of the project site.

The drainages are surrounded by open space. Single-family residences are scattered throughout the area, while concentrated low-density residential uses surround the project site. Developed areas along the San Diego River are likely causing drainages to receive additional inputs via urban runoff. The lower San Diego River and Forester Creek are listed as impaired waterbodies under Section 303(d) of the Clean Water Act (CWA). These waterbodies are impaired by pollutants such as fecal coliform, enterococcus, selenium, nitrogen, manganese, phosphorus, total dissolved solids, and low dissolved oxygen.

3.3.2 Jurisdictional Impacts

3.3.2.1 Methodology

ICF conducted a routine-level delineation of potentially jurisdictional aquatic resources for the proposed project. The purpose of the delineation was to identify the extent of potential federal and state jurisdictions within the proposed project area, pursuant to sections 404 and 401 of the Clean Water Act, Section 13260 of the Porter-Cologne Water Quality Control Act, and section 1602 of the California Fish and Game Code. The Jurisdictional Determination, including the exclusion of several human-made aquatic features, was approved by the USACE on February 3, 2020.

Prior to beginning the field delineation, potential aquatic resources with USACE, RWQCB, and CDFW jurisdiction were identified using high-resolution aerial imagery overlaid with geographic information system (GIS) data from the National Wetlands Inventory (NWI; USFWS 2019) and National Hydrography Dataset (NHD; USGS 2019). In addition to the available datasets, the approximate location and extent of aquatic resources were identified based on observed vegetation types, topographic changes, and visible drainage patterns. The project area is located within the 100-year floodway and floodplain of the San Diego River.

Field delineations were conducted on April 17, 2019, by ICF delineators Lanika Cervantes and Nicole Salas. The survey was conducted on foot and jurisdictional limits were mapped using a sub-meter accuracy global position system (GPS) unit.

Potential waters of the United States (WoUS), including wetlands, were evaluated for the presence of Ordinary High Water Mark (OHWM) indicators and/or wetland vegetation, soils, and hydrology. The lateral limits of non-wetland WoUS were delineated using the methodology established in *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States: A Determination Manual* (USACE 2008). The potential wetlands were also analyzed using the methodology from the 1987 *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). Vascular plants were identified using the *Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and the *National Wetland Plant List* (Lichvar et al. 2016). Soil pits were dug in areas located outside of the OHWM where there was evidence of wetland hydrology and/or hydrophytic vegetation using a paired-pit technique. For more detailed methods and field data, see Appendix I of the Carlton Oaks Country Club and Resort Biological Survey Report (ICF 2024).

3.3.2.2 Results

In all, four non-wetland waters are anticipated to be affected either temporarily or permanently by the proposed project (Figure 6; Table 4).

- **Non-Wetland Water (NWW) 1** is an intermittent segment of the San Diego River (North Channel) that is regulated by the USACE, RWQCB, and CDFW. NWW 1 is tributary to the San Diego River, however it has been heavily modified and channelized due to the construction of the golf course. Prior to construction of the golf course, NWW 1 was the historic main channel of the San Diego River, but the San Diego River main channel was diverted south of the berm along the east and south side of the project site. Within the proposed project area, NWW 1 is dominated by southern cattails (*Typha domingensis*) with sections supporting patches of arroyo willow, red willow, cottonwood, and palms. Impacts to this feature are expected to be temporary, with most impacts being associated with the dewatering of the large constructed pond.
- **NWW 2** is an intermittent stream, likely subject to USACE, RWQCB, and CDFW jurisdiction, that flows north to south, draining into NWW 1. This feature begins at a storm drain outfall located off of Carlton Oaks Drive. This feature has been heavily modified and constrained as it is located between the housing development and the golf course parking lot. This feature is dominated by Brazilian peppertrees (*Schinus terebinthifolia*), southern cattails, and willows within the active floodplain while the banks are dominated by highway ice plant (*Carpobrotus edulis*). This feature will be eliminated as part of the planned project and mitigated for under the proposed permanent impact mitigation.
- **NWW 3** is an ephemeral stream that flows north to south and is likely subject to USACE, RWQCB, and CDFW jurisdiction. It is a tributary to NWW 1 (Figure 6). This feature starts at a small storm drain outfall near the edge of the existing housing developments. The channel bottom is unvegetated; however, the banks support scattered palms and are dominated by ripgut brome (*Bromus diandrus*), ragweed, and shortpod mustard.
- **NWW 4** will not be affected by this project.
- **NWW 5** is an intermittent stream channel located at the northeastern-most end of the delineation area. NWW 5 is subject to USACE, RWQCB, and CDFW jurisdiction (Figure 6). It is densely vegetated with cattails and a mix of other riparian vegetation including willows and cottonwoods. There is an existing culverted road crossing that is approximately 16 feet wide.
- **Wetland Water (WW) 1** is a depressional wetland (Figure 6) that is located approximately 400 linear feet from the San Diego River (South Channel) and approximately 800 linear feet from the OHWM of NWW 1. Additionally, WW 1 is located within the FEMA-mapped 100-year floodplain. This feature is not considered CDFW jurisdictional as it is a wetland that is not directly associated with a lake, river, or stream feature. Ponded water occurs within this area; however, no inlet or outlet structure was observed. Due to the location of a maintenance facility directly adjacent to this area, irrigation water may be drained into this area, allowing it to persist over time and causing wetland conditions. The area is dominated by bulrush and yerba mansa near the center and Brazilian peppertrees and willows along the edge. WW 1 is in the avoidance area and will not be affected by the project.

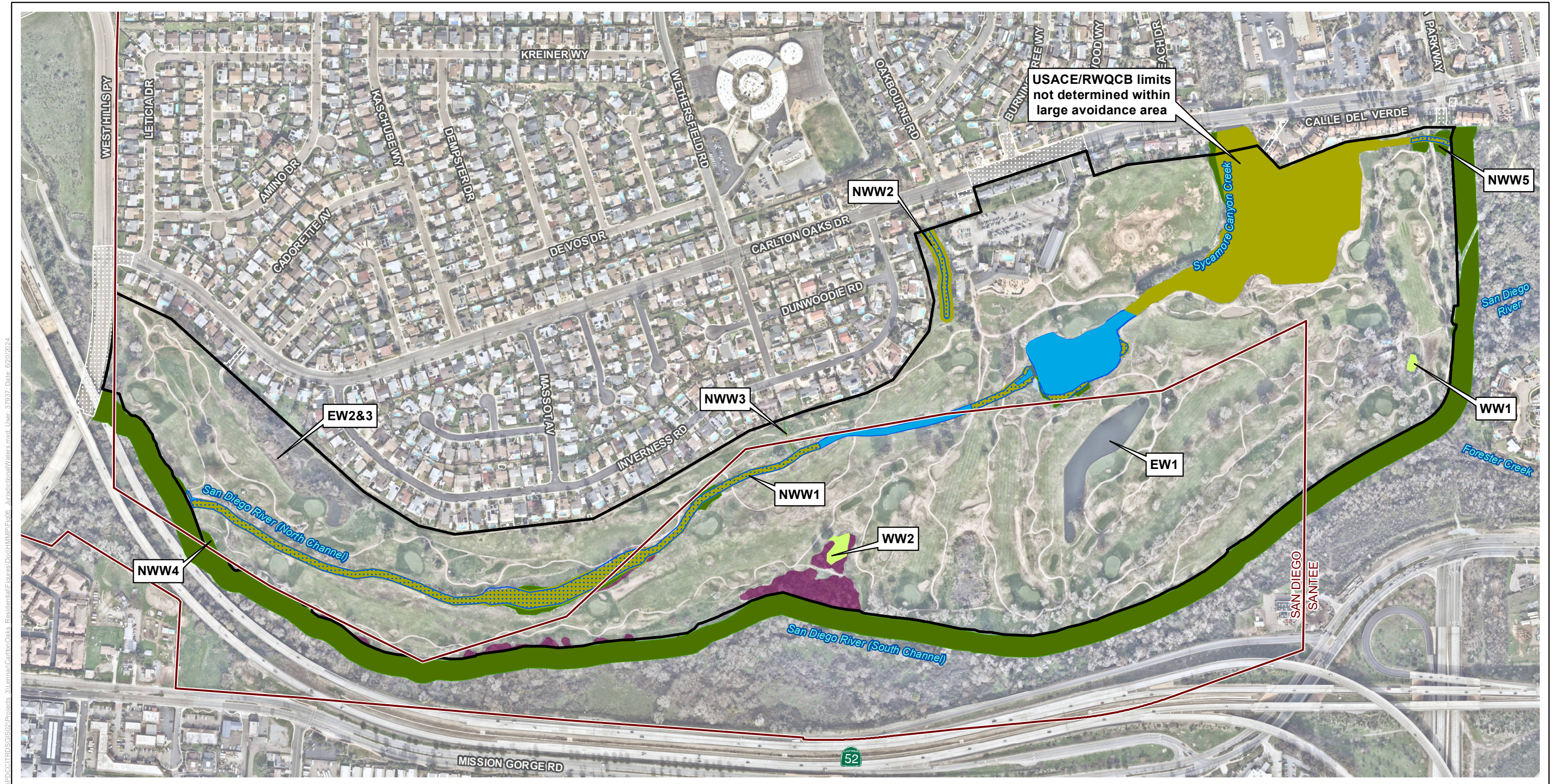
3.4 Plants Observed

Within the proposed project area and its 100-foot buffer, 137 species of plants were observed, including 78 native and 59 nonnative species. These represent plants associated with all vegetation communities and land cover types identified in the proposed project area. For a complete list of all plant species observed, see Attachment 2.

3.4.1 Threatened and Endangered Plant Species

A literature review and analysis of potential species identified two federally listed species with the potential to occur within the proposed project area- San Diego ambrosia (*Ambrosia pumila*) and willowy monardella (*Monardella viminea*). Both these species were considered to have a low probability to occur due to limited amounts or low quality of potential habitats within the proposed project area. Neither species was observed during any of the rare plant surveys conducted during 2019 and 2022. For information on all species reviewed for potential to occur, see Attachment 1.

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Project Site
 Offsite Areas
 City of Santee/San Diego Municipal Boundary

Waters of the U.S. and State

 Nonwetland Water
 Nonwetland Water (Riprap-lined)
 Wetland Waters
 Wetland Waters Within OHWM

CDFW Waters

 Unvegetated Streambed
 Vegetated Streambed
 Riparian

*Within the City of San Diego, these areas are also ESL Wetlands.

City of San Diego ESL Wetland

 Southern Cottonwood-Willow Riparian Forest (61330)

Source: Jurisdictional Resources-ICF (2021); Imagery-SANGIS (2023)

0 225 450
 Feet
 1 in = 450 feet

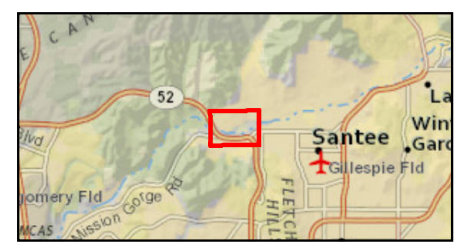


Figure 8
Jurisdictional Waters and Wetlands
Carlton Oaks Country Club and Resort

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3.4.2 Non-Listed Special-Status Plant Species

Four special-status plant species listed under the CRPR were observed within the proposed project area and a 100-foot buffer around it: Palmer's sagewort (*Artemisia palmeri*), San Diego marsh-elder (*Iva hayesiana*), southern California black walnut (*Juglans californica* var. *californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) (Figure 7). Of these four species, only two were found within the limits of the proposed project area, southwestern spiny rush and black walnut. Two Southern California black walnuts were observed within wetland avoidance areas in the project site within the City of San Diego. Southwestern spiny rush was identified within wetland avoidance areas within Sycamore Canyon Creek and the San Diego River (North Channel) within the City of Santee. These species are plants of limited distribution but are locally common. These CRPR 4.2 species do not clearly meet CEQA standards and thresholds for impact considerations. These populations do not have local rarity, are not peripheral to the taxa's distribution, and do not occur in unusual substrates or habitat. These CRPR species are therefore not considered endangered, rare, or threatened under CEQA. The remaining two species, Palmer's sagewort and San Diego marsh elder, were only located behind the berm separating the golf course from the San Diego River (South Channel) and will not be affected by the proposed project.

3.5 Wildlife Observed

Sixty-five bird species were observed or detected within the BSA. The BSA includes birds typical of golf course and riparian vegetation communities. Year-round residents include California towhee (*Melospiza crissalis*) and Bewick's wren (*Thryomanes bewickii*). Summer breeding species utilizing the BSA include four special-status species: least Bell's vireo (*Vireo bellii pusillus*), vermilion flycatcher (*Pyrocephalus rubinus*), yellow warbler (*Setophaga petechia*), and yellow-breasted chat (*Icteria virens*). For a complete list of animal species, see Attachment 2.

3.5.1 Threatened or Endangered Wildlife

Focused, protocol-level surveys were conducted for ESA-listed species least Bell's vireo coastal California gnatcatcher (*Polopotila californica californica*), and southwestern willow flycatcher (*Empidonax trailii extimus*) in 2019 and proposed threatened Southwestern pond turtle (*Emys marmorata*). Focused surveys in 2019 and 2022 revealed multiple breeding pairs of least Bell's vireo throughout the BSA. Southwestern pond turtle, California gnatcatcher, and southwestern willow flycatcher surveys were negative and determined to be absent from the BSA (see Section 3.2.3.3 in the Biological Survey Report). Other ESA species were not expected or determined to have low potential to occur based on biological determination including factors such as of lack of suitable habitat or being outside of the species range. For information on all species reviewed for potential to occur, see Attachment 1.

3.5.1.1 Least Bell's Vireo

Least bell's Vireo is a federal and state listed Endangered species. The least Bell's vireo is a small, migratory insectivore that prefers dense riparian vegetation for foraging and nesting. In southern California, least Bell's vireo nest sites are often associated with riparian stands between 5 and 10 years old. However, the species is known to utilize, and even breed, in marginal habitat. Within the proposed project site vireos were observed mainly within and adjacent to the San Diego River

(South Channel) riparian area along the southern and eastern edge, but were also observed along San Diego River (North Channel) within the golf course. The entire project falls within the designated USFWS Critical Habitat for least Bell's vireo. All suitable habitat, except the isolated riparian patch behind the existing club house, are considered occupied habitat for this species.

3.5.1.2 Monarch butterfly

Federal candidate insect species Monarch butterfly (*Danaus plexippus*) was observed nectaring on flowers within the project area; no suitable milkweed breeding habitat was observed.

3.5.2 Non-Listed Special Status Wildlife Species

Five non-listed special-status species birds were incidentally detected during focused surveys or other biological surveys within the proposed project area: a Cooper's hawk, vermilion flycatcher, western bluebird (*Sialia mexicana*), yellow warbler, and yellow-breasted chat (Figure 7). One special-status mammal species—southern mule deer—was observed. The majority of these species were seen utilizing riparian habitat, or the fringes of riparian habitat similar to the listed least Bell's vireo, and it is expected that avoidance and mitigation measures taken to protect vireo habitat will be sufficient to protect these non-listed species as well.

3.5.3 Nesting Birds and Raptor Foraging

Most birds and their nests are protected by the Migratory Bird Treaty Act and federal and state law. Trees, shrubs, and even bare ground within the study area have the potential to support a variety of nesting birds. The entire project site is also suitable for raptor foraging. A double-crested cormorant rookery was observed in a eucalyptus along a pond within San Diego River (North Channel) within the center of the golf course in the City of San Diego. Rookeries of this species are considered special-status by CDFW and are wildlife nursery sites protected under CEQA.

3.5.4 Wildlife Movement Corridors

Wildlife corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or human-induced factors, such as urbanization. The fragmentation of natural habitat creates isolated "islands" of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species and, thus, adversely affect both genetic and species diversity. Corridors often partially or largely mitigate the adverse effects of fragmentation by: (1) allowing animals to move between remaining habitats to replenish depleted populations and increase the gene pool available; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, or for dispersing juveniles in search of new home ranges.

The proposed project area, being situated directly adjacent and parallel to a west-east running portion of the mainstem of the San Diego River (South Channel), a City of San Diego Multi-Habitat Planning Area (MHPA), is part of the habitat connectivity that exists in this area. It affords an unimpeded area of movement for birds, mammals, reptiles, amphibians, and invertebrates between the City of San Diego MHPA within the San Diego River habitats in the west and the City of Santee preserve lands to the east. In addition, several features within the BSA provide valuable habitat for

nesting, nursery, and refugia sites for native resident species and for species that migrate through the region and require stop-over habitat for survival. Examples of these features include the freshwater ponds, riparian forests, and marsh habitats.

The larger riparian feature in the northeast portion of the project site is proximal to the Santee Lakes Recreation Preserve, which is known to host over 200 avian species. Therefore, the BSA would provide constrained connectivity for species moving between the San Diego River environment and the Santee Lakes Recreation Preserve.

3.6 Soils

There are no steep slopes or rock outcrops in the BSA. The Natural Resources Conservation Service (NRCS) has mapped the following soil series as occurring within the delineated jurisdictional waters based on the Soil Survey Geographic (SSURGO) database (USDA/NRCS 2006): Redding, Riverwash, Visalia, and Vista (Figure 8).

Soil series included within the SSURGO mapping unit (San Diego County Area; CA638) are described below based on the official soil descriptions provided by the U.S. Department of Agriculture (USDA/NRCS 2012).

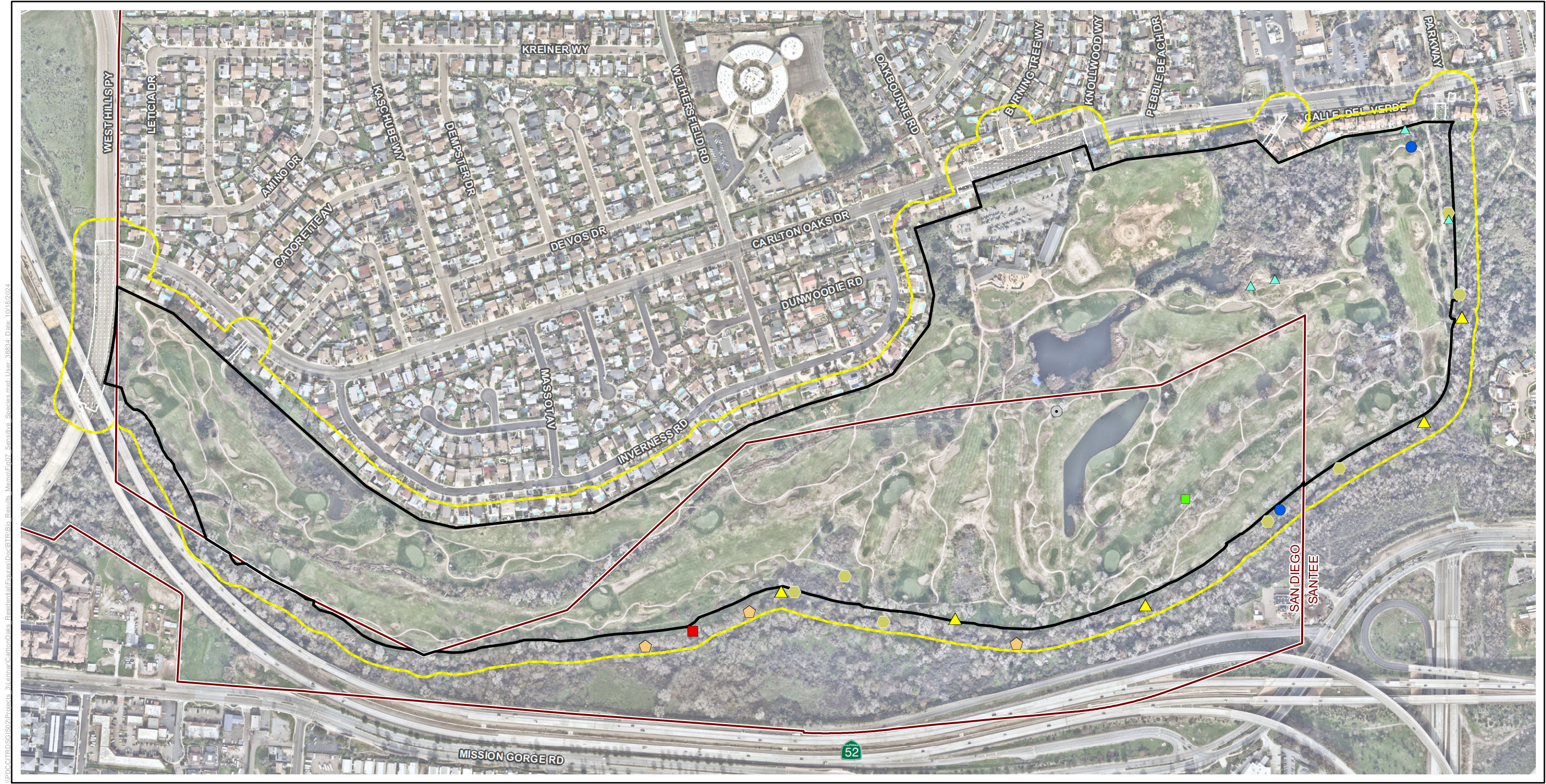
3.7 Land Use

The proposed project site is currently operating as the Carlton Oaks Country Club with an existing golf course, golf driving range, clubhouse, restaurant/bar, pro-shop, hotel and hotel cottages. The golf course covers most of the project site, with the clubhouse and related structures located in the north-central portion of the project site. The golf course encompasses 145 acres, 18 holes, and has a total of 132 acres of turf irrigation with a block-type irrigation system. The golf course includes two human-made water features not associated with San Diego River (North Channel).

The surrounding land uses consist of a mix of residential and commercial development, transportation corridors, and open space, which contains undeveloped areas within the upstream and downstream segments of the San Diego River. The northern boundary of the project site is bound by single-family homes and condominiums. The southern and eastern boundaries of the existing golf course abut the San Diego River (South Channel) and Forester Creek. The southern boundary of the site consists of a 10- to 12-foot-tall berm that separates the river channel from the golf course and is occasionally used as an informal recreation path. Some areas of the berm have eroded to 5 feet in height. To the west of the project site is West Hills Parkway and State Route 52 with open space and general commercial west of these transportation corridors.

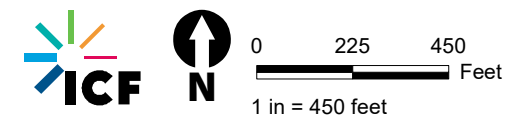
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- | | | |
|---|----------------------------------|----------------------|
| Project Site | Other Sensitive Species* | Southern mule deer |
| Biological Study Area | Cooper's hawk | Western bluebird |
| Offsite Areas | Double-crowned cormorant rookery | Yellow warbler |
| City of Santee/San Diego Municipal Boundary | | Yellow-breasted chat |
| | | Monarch Butterfly |
| | | Vermilion Flycatcher |

Source: Biological Resources-ICF (2022); Imagery-SANGIS (2023)



*Least Bell's Vireo Observations are on Figure 6.

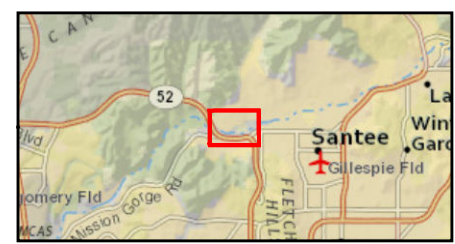
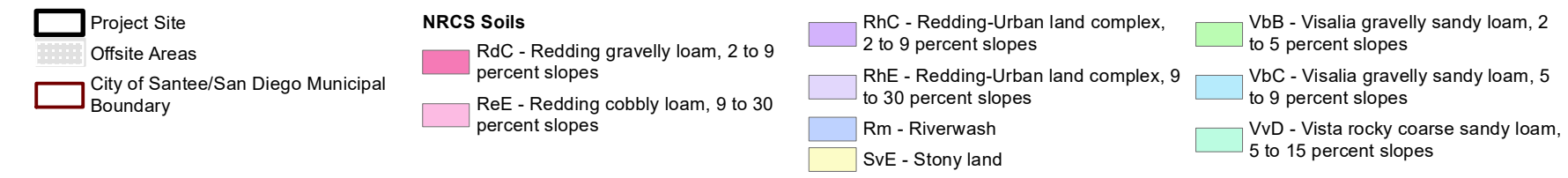
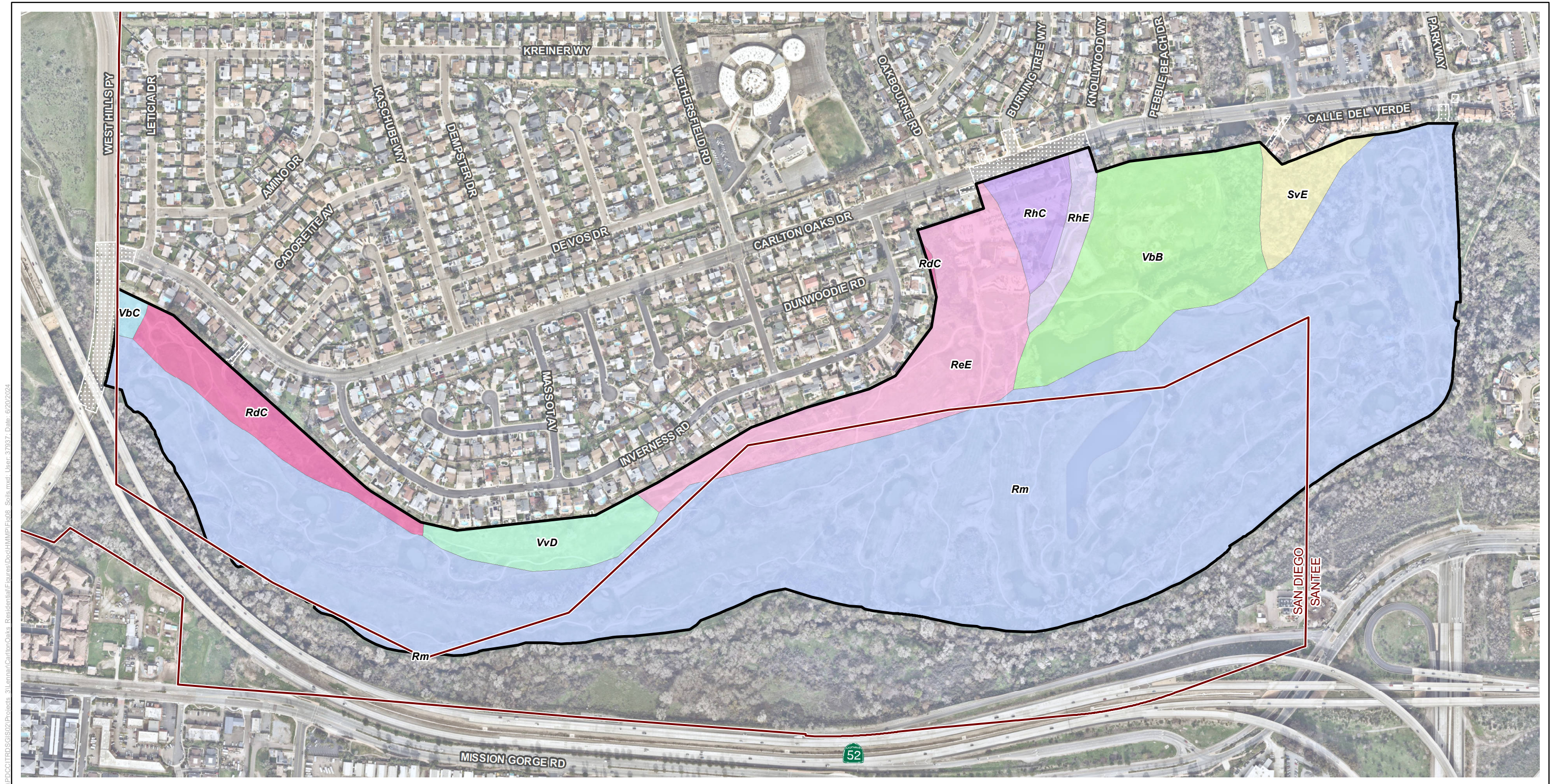


Figure 7
Other Sensitive Species
Carlton Oaks Country Club and Resort

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Source: Soils - NRCS (2022); Imagery-SANGIS (2023)

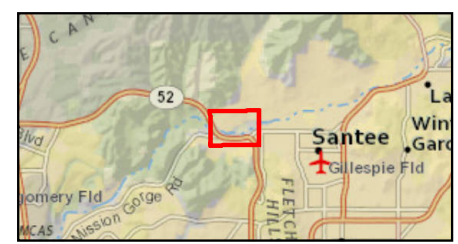
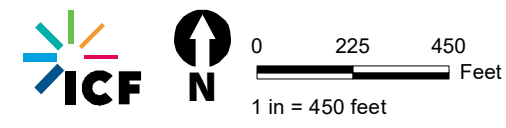


Figure 8
NRCS Soils Map
Carlton Oaks Country Club and Resort

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Chapter 4

Restoration and Mitigation Work Plan

This HMMP guides the mitigation of temporary and permanent impacts to jurisdictional waters through restoration (temporary impact mitigation), and onsite establishment and enhancement (permanent impact mitigation). The mitigation will involve the restoration of temporary impacts in-situ at one location, and onsite mitigation for permanent impacts through the establishment of new jurisdictional habitat and the enhancement of existing vegetation. The mitigation outlined in the HMMP is contingent upon approval by the regulatory agencies and acquisition of the related permits. The temporary impact mitigation is designed to restore wetland conditions and functions, vegetation communities, and wildlife habitats within WoUS/waters of the State (WoS)/CDFW habitat temporarily affected by the construction of the project (dewatering of a pond feature in NWW-1, and the construction of an emergency access road). The permanent impact mitigation is designed to increase the available wetland habitat present at two locations along San Diego River (North Channel) and enhance wetland functions and habitat at two additional locations through the removal and control of nonnative species within the sites (Figure 4). Any deviations from the HMMP shall be documented by the Restoration Ecologist and reported promptly to the Owner and the resource agencies, as needed.

Mitigation for the temporary dewatering of the pond feature in NWW-1 will consist of removal of any trash and debris from construction and re-watering the site. Because the freshwater and emergent riparian species will rebound quickly once the water regime returns to normal and no woody vegetation will be removed as part of the temporary impacts, no post-construction intervention is expected to be necessary to return the de-watered areas to pre-construction conditions. The temporary impacts from dewatering will be monitored on the same schedule as other mitigation (see Chapter 7, *Monitoring Requirements*); if it is determined that progression towards the pre-construction site conditions is not occurring, then adaptive management will be carried out as detailed in Section 7.3, *Adaptive Management Plan*. The net result will be a 1:1 *in situ* restoration of habitat, however since this is planned to occur passively, no restoration or mitigation activities for the temporarily affected areas will be discussed in this HMMP.

Temporary impact mitigation for impacts caused by the construction of the emergency access road will include grading as necessary to return temporarily affected areas to pre-construction grades, clearing of trash and debris from construction, removal of nonnative species, and planting and seeding of native species to encourage the growth of high-quality habitat in total, 0.4 acre of mule fat scrub and 0.8 acre of southern cottonwood–willow riparian forest will be restored in-situ, and the additional acreage necessary to meet the City of Santee's mitigation ratios has been included in the habitat enhancement areas for permanent impact mitigation. The plant palette proposed in this HMMP is based on the common native species list compiled during the rare plant surveys. Additional species commonly found in nearby locations are also proposed to enhance the ecological functions of the temporarily affected habitats (Figure 9).

Onsite mitigation activities will include the establishment of 0.43 acre of riparian habitat, which include 0.34 acre of vegetated jurisdictional wetland through the recontouring, revegetation, and removal of old anthropogenic debris not specifically installed as stream bank protection (e.g. riprap) in Mitigation Areas 1 and 2. In addition to the recontouring and revegetation of Mitigation Areas 1

and 2 habitat-enhancement activities will be performed in Mitigation Areas 3 and 4, for a total of 3.79 acres of enhancement of jurisdictional resources (Figure 10). Habitat enhancement will involve the removal of nonnative trees and species, and where appropriate, the installation of native seed and container plants to improve habitat quality. Table 8 describes the habitat expected to be restored, established, and enhanced.

Table 8. Proposed Acreages and Vegetation Communities by Mitigation Type

| Vegetation Community | Temporary Impact Mitigation (Restoration) 0.12 acre¹ | Permanent Impact Mitigation (Establishment) 0.43 acres¹ | Permanent Impact Mitigation (Enhancement) 3.79 acres² |
|---|--|---|---|
| Coastal and Valley Freshwater Marsh | – | 0.34 | – |
| Mulefat Scrub | 0.4 | – | – |
| Riparian Scrub | – | 0.09 | – |
| Southern Cottonwood–Willow Riparian Forest | 0.8 | – | 3.79 |
| Total for All Mitigation Types³ | 4.21 acres | | |

¹ Number based on in-situ restoration from Table 3.

² Based on the proposed enhancement areas and conceptual establishment areas presented in Figure 4 and Figure 10.

³ Sum of rows may not equal total because of rounding.

4.1 Avoidance and Minimization

Specific biological avoidance and minimization measures will be implemented prior to and during restoration and mitigation activities. The initial removal of invasive trees and invasive perennial species will be implemented outside the bird nesting season to the maximum extent practicable. If removal must occur during the nesting season, then mitigation measure MM-BIO-13 from the BSR will be implemented. The specific avoidance and minimization measures to be implemented will be outlined in the project's CWA 404 and 401 permits and the Streambed Alteration Agreement.

4.2 Site Preparation and Weed Removal

Under the direction of the Restoration Ecologist, the Installation Contractor will remove trash and debris, weeds, and undesirable vegetation within the restoration and mitigation areas. Manual weed removal as well as herbicide application may be necessary to treat resistant invasive plant species. Methods for best achieving this initial removal will be detailed in construction plans and specifications and guided by the Restoration Ecologist, based on the species and their location within the restoration and mitigation areas. Fences may be needed to restrict access during restoration and mitigation activities for safety and the protection of site resources. The nonnative plant species to be removed include, but are not limited to, pepper tree (*Schinus* sp.), eucalyptus (*Eucalyptus* sp.), tamarisk (*Tamarix* sp.), Canary Island palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), edible fig (*Ficus carica*), ice plant (*Carpobrotus edulis*), giant reed (*Arundo donax*), perennial pepper-grass (*Lepidium latifolium*), and floating water primrose (*Ludwigia peploides*).

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- Project Site
- City of Santee/San Diego Municipal Boundary

- Restoration Areas**
- Restoration of Mule Fat Scrub
 - Restoration of Southern Cottonwood-Willow Riparian Forest
 - Restoration through Rewatering

Source: Imagery-SANGIS (2020)



0 125 250
1 in = 250 ft Feet



Figure 9
Restoration Area Components
Carlton Oaks Country Club and Resort

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- Project Site
- City of Santee/San Diego Municipal Boundary

- Mitigation Areas**
- Riparian Scrub Vegetation
 - Wetland Vegetation

Source: Imagery-SANGIS (2020)



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1 in = 200 ft Feet

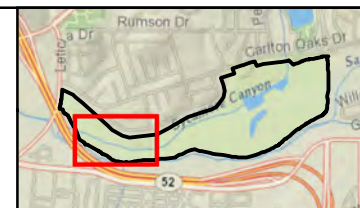


Figure 10
Mitigation Area Components
Carlton Oaks Country Club and Resort

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Nonnative trees will have their GPS locations marked with submeter GPS units for future monitoring, and their biomass be removed in such a way that preserves the surrounding native vegetation as much as possible. If removal is not feasible, trees may be girdled, or injected with herbicide (palms) and left in-situ. Trees that are removed will be cut as close to ground level as possible and treated where appropriate to prevent resprout. Trees without viable seed may be mulched onsite and used within the restoration or mitigation area under the direction of the Restoration Ecologist. Trees with viable seed must be disposed of offsite.

Areas containing non-aquatic nonnative weeds will be treated with weed whips or mowers; the thatch will be removed to expose bare soil. Cut material will be removed from site within a week of cutting to prevent further spread of seed.

After the initial weed removal has been completed, weed removal will continue to occur as needed to ensure the restoration and mitigation sites meet the required success metrics.

4.3 Grading

Grading will occur in Mitigation Areas 1 and 2 only, where wetland habitat is being created. Mitigation Area 1 will lower elevations to create two benches, with the lower bench having a wetland swale area. Mitigation Area 2 will have its grade lowered to create a wetland swale with freshwater marsh habitat. Recontouring of these two areas is expected to create 0.34 acre of vegetated wetland and 0.09 acre of riparian habitat.

4.4 Revegetation

The following sections describe the methods and best practices for the installation of cuttings, container plants, and seed for the purposes of restoring and enhancing native cover, which will be applicable to both the restoration areas and the mitigation areas. Specific details, including plant palette and any site-specific methods and best practices will be outlined in Section 4.4.4, *Temporary Impact Mitigation Area*, and Section 4.4.5, *Permanent Impact Mitigation Areas*, which detail the specific revegetation plans for the temporary and permanent impact-mitigation areas.

4.4.1 Cuttings Installation

Cuttings of riparian plant species, mule fat (*Baccharis salicifolia*) and willow (*Salix* spp.), will be harvested from onsite stock, taking no more than 20 percent of each individual source plant. Cuttings will range from 0.5 inch to 1.0 inch in diameter and 36 to 48 inches in length. The basal ends will be cut at approximately a 45-degree angle; if terminal ends are cut, they will be cut perpendicular to the length of the cutting to maintain the proper orientation during installation.

Cuttings will be cut and planted immediately if cutting installation takes place during the dormant season (i.e., when willows do not have leaves). If cutting installation is to take place outside of the dormant season, then the cuttings will be taken during dormancy and stored for up to 6 months in a dark, cool, and moist location protected from wind and sun. Moldy, dried, or sprouting cuttings will be discarded, and the remaining cuttings soaked for 3 to 5 days.

Cuttings will be installed within wetland areas where the water table is high enough for the cuttings to be in contact with the capillary zone. They will be planted in holes made using a handheld augur or similar, spaced 3 feet apart. The Restoration Ecologist will place flags at appropriate locations for each species before cuttings are installed by the Installation Contractor.

4.4.2 Container Plant Installation

Installation of container plants will occur during the rainy season (generally between early October and early February) where possible. Container plants will be sourced from accredited nurseries as close to the project site as feasible. Plants must be certified by the supplier (nursery) to be free of exotic pests (e.g., Argentine ants, shot-hole borers) prior to delivery on site. The container plants may either be delivered directly to the site during implementation or to a temporary onsite nursery. At the time of delivery, the Restoration Ecologist will inspect the plant material for injury, disease, and insect infestation and ensure that the plants are the correct species, size, and quantities. Plant material that is rejected will be removed from the site. If plants are to be stored onsite before installation, the Installation Contractor will be responsible for setting up and maintaining an appropriate nursery and for maintaining the container plants in a healthy condition. The Restoration Ecologist will inspect stored plants prior to installation and will reject any plants that have declined in health or vigor to a degree that makes them unsuitable for use.

Prior to planting, the Installation Contractor will ensure that the site is wet from rainfall or adequately watered so that the first few inches of soil are saturated. Container plants will be installed according to best horticultural practice, as follows.

- All container plants will be thoroughly watered prior to planting.
- Holes will be dug twice as deep and three times as wide as the container. Soil clods will be broken up and the sides of the hole roughened to avoid a smooth-sided “bathtub” effect. Fill the planting hole with water and allow water to drain completely into the soil; repeat twice.
- Partially backfill the hole with native soil to allow planting at the proper depth. The backfill mix will contain only native soil with no rocks larger than 3/4-inch diameter. Moisten and gently tamp the backfill into place. Remove the plant from its container and place on top of the moistened backfill so that the plant collar is approximately 1 inch above finish grade. Backfill the remaining hole with native soil.
- No mulching or berms will be used around container plantings.
- Thoroughly water and allow the basin to drain.

For smaller container plants such as plugs, a hand auger may be used to create holes. Holes should be backfilled as necessary to ensure that the bottom of the plug is in direct contact with soil.

4.4.3 Seed Installation

Seed will be applied throughout the restoration site where nonnatives have been removed and bare soil is present. Seed will be obtained from within the watershed or within 10 miles of the mitigation site where possible. Seed that cannot be provided from the immediate vicinity will be provided from the closest commercially available sources, subject to the approval of the Restoration Ecologist. Seed purchased from a commercial source will be delivered to the site in sealed and labeled packaging, along with California State Agricultural Code seed certification that includes the supplier’s name,

geographic location, collection date, and tested purity and germination percentage rates. The seeds will be ordered and delivered in separate containers by species and inspected by the Restoration Ecologist. Seeds of plant species that can't be sourced will be replaced by another plant species of same functional group. Table 9 outlines the recommended general riparian seed mix recommended for use for this project.

Table 9. General Riparian Seed Mix

| Species | Common Name | Bulk Pounds per Acre ¹ |
|--|-------------------------|-----------------------------------|
| <i>Ambrosia psilostachya</i> | Common ragweed | 7.50 |
| <i>Anemopsis californica</i> | Yerba mansa | 7.50 |
| <i>Artemisia douglasiana</i> | Mugwort | 4.00 |
| <i>Artemisia palmeri</i> | Palmer's sagewort | 1.50 |
| <i>Asclepias fascicularis</i> | Narrow-leaf milkweed | 1.50 |
| <i>Heterotheca grandiflora</i> | Telegraphweed | 4.25 |
| <i>Juncus acutus</i> ssp. <i>leopoldii</i> | Southwestern spiny rush | 0.75 |
| <i>Oenothera elata</i> | Evening primrose | 1.50 |
| <i>Rosa californica</i> | California wildrose | 12.00 |
| Total Bulk Pounds | | 40.50 |

¹ Assumes percent purity of seed lot is typical for the species.

The seed mix will be applied by hand in the spaces between cuttings or container plantings or in bare areas where substantial amounts of nonnative species have been removed and raked into the soil.

4.4.4 Temporary Impact Mitigation Area

Temporary impact areas associated with the road are small and will be revegetated with a combination of container plants (Table 10) and seed (Table 9).

Table 10. Temporary Impact Area Planting Palette

| Species | Common Name | Type | Amount for Mitigation |
|---|---------------------|----------|-----------------------|
| <i>Mulefat Scrub</i> | | | |
| <i>Baccharis salicifolia</i> | Mulefat | 1 gallon | 30 |
| <i>Southern Cottonwood-Willow Riparian Forest</i> | | | |
| <i>Salix exigua</i> | Sand bar willow | 1 gallon | 5 |
| <i>Rosa californica</i> | California wildrose | 1 gallon | 10 |
| <i>Artemisia douglasii</i> | Mugwort | 1 gallon | 20 |
| <i>Bromus carinatus</i> | California brome | 1 gallon | 20 |
| <i>Sambucus nigra</i> ssp. <i>caerulea</i> | Blue elderberry | 1 gallon | 5 |
| <i>Anemopsis californica</i> | Yerba mansa | 1 gallon | 20 |
| Total Container Plants | | | 110 |

4.4.5 Permanent Impact Mitigation Areas

The Permanent Impact Mitigation Areas have two distinct revegetation needs and strategies. Mitigation areas 1 and 2 will be areas of habitat establishment, where the existing ornamental and upland vegetation is removed and the ground recontoured and revegetated with wetland and riparian vegetation. In Mitigation Areas 3 and 4, mitigation is taking place through the enhancement of the existing southern willow scrub community, and installation of container plants and seed will only occur in areas where significant removal of nonnative species takes place (Table 12).

In Mitigation Areas 1 and 2, the existing ground will be recontoured to produce an area of saturated, or near-saturated soil which will be able to support obligate wetland species, and higher bench areas which will support riparian scrub. Due to the high water table anticipated in the bench areas, cuttings are recommended for use, although they may be substituted for gallon sized container plants if suitable cutting material is not present on site in sufficient amounts. The planting palette and planting rates per acre are found in Table 11. In addition to the container plants and cutting, the riparian seed mix will also be applied within Mitigation Areas 1 and 2 at the same quantities and rates described in Table 9.

Table 11. Mitigation Areas 1 and 2 Habitat-Establishment Planting Palette

| Species | Common Name | Type | Number of Plants (per acre) | Total Number |
|----------------------------------|-----------------|--------------------|-----------------------------|--------------|
| <i>Baccharis salicifolia</i> | Mule fat | Cutting | 1,250 | 125 |
| <i>Salix exigua</i> | Sand bar willow | Cutting | 1,000 | 100 |
| <i>Salix gooddingii</i> | Black willow | Cutting | 250 | 25 |
| <i>Salix laevigata</i> | Red willow | Cutting | 250 | 25 |
| <i>Salix lasiolepis</i> | Arroyo willow | Cutting | 250 | 25 |
| <i>Anemopsis californica</i> | Yerba mansa | 1-gallon container | 50 | 17 |
| <i>Cyperus eragrostis</i> | Tall cyperus | 4-inch rose pot | 150 | 50 |
| <i>Eleocharis montevidensis</i> | Sand-spike rush | 1-gallon container | 50 | 17 |
| <i>Heliotropium curassavicum</i> | Chinese parsley | 4-inch rose pot | 100 | 34 |
| <i>Juncus mexicanus</i> | Mexican rush | 1-gallon container | 50 | 17 |
| <i>Phyla nodiflora</i> | Common lippia | 4-inch rose pot | 200 | 70 |
| Total | | | 3,600 | 505 |

Table 12. Mitigation Areas 3 and 4 Habitat-Enhancement Planting Palette

| Species | Common Name | Type of Container Plant | Number of Plants |
|--|----------------------------------|-------------------------|------------------|
| <i>Acer negundo</i> | Box elder | 1-gallon container | 30 |
| <i>Juglans californica</i> | Southern California black walnut | 1-gallon container | 20 |
| <i>Platanus racemosa</i> | Western sycamore | 1-gallon container | 20 |
| <i>Populus fremontii</i> ssp. <i>Fremontii</i> | Fremont cottonwood | 1-gallon container | 30 |
| <i>Sambucus nigra</i> ssp. <i>caerulea</i> | Blue elderberry | 1-gallon container | 50 |
| Total | | | 150 |

4.5 Implementation Schedule

The proposed implementation schedule for the maintenance activities described above is provided in Table 13, below.

Table 13. Implementation Schedule

| Schedule | Implementation Tasks |
|--|--|
| Phase 1: Prior to Construction | Removal of nonnative trees and <i>Arundo</i> |
| Phase 2: Before Anticipated End of Construction | Container plant and seed procurement, cutting collection |
| Phase 3: Before, During or After Construction | Grading |
| Phase 4: After Construction | Site preparation, installation of cuttings, container plants, and seed |
| Phase 5: After Installation | 120-day PEP |
| Phase 6: After 120-Day PEP | 5-year maintenance and monitoring begins |

PEP = Plant-Establishment Period

4.6 Erosion Control

Restoration and mitigation implementation will take place under the CWA 401, 404, and National Pollutant Discharge Elimination System's Construction General Permit for the Carlton Oaks project, and will adhere to all applicable requirements and BMPs outlined in the proposed project's SWPPP.

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Chapter 5

Maintenance Plan

The goal of the HMMP is to create a natural, self-sustaining wetland system that will require minimal follow-up maintenance. The maintenance program will begin when nonnative removal and container plant installation have been completed. Maintenance will be most intense during the first few seasons of growth to prevent the establishment of weeds and assist with and promote native plant and seed establishment. The Installation Contractor will be responsible for maintenance during the 120-day PEP. The Maintenance Contractor will be responsible for the scheduled 5-year maintenance and monitoring period, which will begin after the 120-day PEP is complete. The contractor will coordinate with the Restoration Ecologist on a regular basis to determine priority maintenance activities during different periods of the plan. The primary maintenance obligations are reviewed below. Both the restoration area and the mitigation area will follow the same maintenance and reporting plans.

5.1 Maintenance Duration

Maintenance will take place for 5 years following completion of construction activities and the 120-day PEP. If success standards are not being met, the maintenance period may be extended. At the completion of the maintenance period, the in-situ temporary impacts mitigation will be released from further maintenance requirements, whereas Mitigation Areas 1–4 will begin performing maintenance in accordance with the long-term management plan.

5.2 120-Day Plant Establishment Period

After installation work is completed, a 120-day (4-month) PEP will begin. At the completion of installation planting, the Installation Contractor will request a pre-maintenance inspection by the Restoration Ecologist. The Restoration Ecologist will prepare a punch list of correction items for completion by the contractor. After punchlist items are corrected, the Restoration Ecologist will inform the Owner that the installation phase is complete and that the 120-day PEP has begun. During the PEP, the Installation Contractor will provide regular maintenance of the restoration area and the mitigation area, including trash removal, erosion control, and nonnative treatment. Watering of container plants and cuttings may also be performed by the Installation Contractor if desired in order to increase the survival of the installed container plants.

The Installation Contractor will perform maintenance visits and activities in accordance with the goals presented in this HMMP. The number of maintenance visits will vary, depending on the amount of work necessary for the mitigation area to meet its success standards on schedule. As a guideline, the contractor is expected to perform maintenance approximately twice a month during the 120-day PEP. Herbicide application will be in accordance with best management practices, manufacturers' recommendations, and agency regulations. All herbicide used will be rated for aquatic use. At the end of the 120-day PEP, the Restoration Ecologist will flag all dead and diseased plant materials requiring replacement and prepare a final maintenance punch list of correction

items. After the Installation Contractor has satisfactorily completed the punch list, the Restoration Ecologist will recommend acceptance of the 120-day PEP.

5.3 Irrigation

No irrigation is expected to be necessary at this time. Water tables within all mitigation areas are relatively high, and it is expected that plantings will not require supplemental irrigation after installation, however the Installation and Maintenance Contractors may install an automated irrigation system or hand water if desired to meet survival rate criteria.

5.4 Weed Control

Nonnative weed control will consist of controlling populations of invasive weeds within the mitigation site by the following methods: (1) hand removal; (2) cutting or mowing; or (3) chemical herbicide application. Hand removal of weeds is the most effective method of control. This method will be used around individual container plantings. Other herbaceous weeds will be removed by hand before setting seed. Weed control activities will take place monthly for the first 6 months and quarterly thereafter, with specific attention to treating resprouts of nonnative trees and *Arundo*.

Weed species will be controlled before they set seed and before they shade and out-compete native plantings. With prior consent from the biologist, string trimmers may be used in certain instances. Chemical methods will be used for control of perennial weed species. The contractor will coordinate with the Restoration Ecologist to identify specific areas where chemical herbicides may be used. Any herbicide use must be overseen by a Qualified Applicator. Any herbicide application in proximity to water will be approved for aquatic use by the U.S. Environmental Protection Agency (i.e., reviewed and considered compatible with the aquatic environment when used according to label directions).

5.5 Supplemental Planting

If planted and seeded vegetation is not meeting annual performance criteria the contractor will provide supplemental planting and seeding for the first 2 years of maintenance. All dead container plant materials and cuttings above the allowable tolerance levels will be replaced with the same species in containers of the size originally specified. Vegetation will be monitored monthly for the first 6 months and quarterly thereafter for 5 years.

5.6 Clearing and Trash Removal

Leaf litter and deadwood from native trees and shrubs will not be removed from the restoration or mitigation areas. The decomposition of deadwood and leaf litter is essential for the replenishment of soil nutrients and minerals. Deadwood and snags provide valuable habitat for invertebrates, reptiles, small mammals, and birds. Human-made trash and debris will be removed from the restoration areas by hand monthly for the first 6 months and quarterly thereafter for 5 years.

5.7 Schedule of Maintenance

Weed removal will be conducted by the Maintenance Contractor monthly for the first 6 months and quarterly thereafter. Thereafter, the Restoration Ecologist will conduct maintenance inspections on a quarterly basis during Years 1 through 5. Recommendations for maintenance efforts will be based on the Restoration Ecologist's site inspections, which will occur monthly for the first 6 months and quarterly thereafter.

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Chapter 6

Ecological Performance Standards

6.1 Ecological Performance Standards

Success criteria have been established for the restoration based on the qualitative and quantitative monitoring described in Chapter 7, *Monitoring Requirements*. These performance standards have been designed for this HMMP as a means of monitoring the progress and performance of the physical, hydrological, and biological conditions of the project site.

The success criteria for the temporary impact restoration will be based on a quantitative assessment of conditions prior to impacts. Because the temporary impact areas are located in a highly developed area with little to no natural habitat buffer between them and the golf course the existing vegetation communities have higher proportions of nonnative and ruderal native species, and higher cover of herbaceous species than would be typical for the community in more natural setting, and have a higher presence of nonnative species. Therefore, although it is expected that there will be significant improvement in native cover and the quality of habitat due to restoration efforts, the temporary impact performance standards will be based on the condition relative to pre-construction conditions (Table 14).

For the Mitigation Areas 1 and 2, the standards will focus on maintaining the required amount of wetland habitat, reaching native species cover and richness that will allow the newly created habitat to function as high-quality habitat for native birds and wildlife, and the control of nonnative species (Table 15).

For Mitigation Areas 3 and 4, where native riparian forest is already established, performance standards will focus heavily on the control of nonnative perennial vegetation, with specific focus on nonnative trees and *Arundo* (PEP = Plant-Establishment Period.

Table 16).

Performance will be evaluated annually during regularly scheduled monitoring visits unless otherwise specified. If performance standards are not met after 5 years, adjustments to this HMMP and the performance standards may occur.

Table 14. Temporary Impact Mitigation Area Performance Standards

| Performance Standard | PEP (120 days) | Year 1 | Year 2 | Years 3 | Year 4 | Year 5 |
|---|--------------------------|--------|--------|---------|--------|--------|
| Container Plant Survival ¹ | 100% | 80% | 60% | – | – | – |
| Trash or Erosion | No trash/minimal erosion | | | | | |
| Absolute Cover of Invasive Nonnative Perennial Species ² | < 5% | < 5% | < 5% | < 1% | < 1% | < 1% |
| Absolute Nonnative Cover ³ | < 25% | < 25% | < 25% | < 25% | < 25% | < 25% |
| Absolute Native Cover ³ | – | 20% | 35% | 50% | 60% | 75% |

¹ Percentage is based on the original number of container plants installed.

² Aquatic nonnative species will not be included in the absolute cover measurements.

³ This cover is expressed as the percentage of the baseline survey cover.

PEP = Plant-Establishment Period.

Table 15. Permanent Impact Mitigation Areas 1 and 2 (Habitat Establishment) Performance Standards

| Performance Standard | PEP (120 days) | Year 1 | Year 2 | Years 3 | Year 4 | Year 5 |
|--|--|---------------|---------------|----------------|---------------|---------------|
| Container Plant and Cutting Survival | 100% | 80% | 60% | – | – | – |
| Trash or Erosion | No trash/minimal erosion ¹ | | | | | |
| Grading Topography | Maintain post-construction baseline ² | | | | | |
| Absolute Cover of Nonnative Shrubs and Trees | 0% | 0% | 0% | 0% | 0% | 0% |
| Absolute Cover of Invasive Nonnative Herbaceous Perennial Species ¹ | < 5% | < 5% | < 5% | < 1% | < 1% | < 1% |
| Absolute Cover of Nonnative Cover | < 10% | < 10% | < 10% | < 5% | < 5% | < 5% |
| Native Cover | – | > 25% | 40% | 50% | 60% | 70% |

¹ Aquatic nonnative species will not be included in the absolute cover measurements. Species are considered invasive species if they receive a moderate or high threat rating from the California Invasive Plant Council.
PEP = Plant-Establishment Period.

Table 16. Permanent Impact Mitigation Areas 3 and 4 (Habitat Enhancement) Performance Standards

| Performance Standard | PEP (120 days) | Year 1 | Year 2 | Years 3 | Year 4 | Year 5 |
|--|--|---------------|---------------|----------------|---------------|---------------|
| Trash or Erosion | No trash/minimal erosion ¹ | | | | | |
| Grading Topography | Maintain post-construction baseline ² | | | | | |
| Absolute Cover of Nonnative Shrubs and Trees | 0% | 0% | 0% | 0% | 0% | 0% |
| Absolute Cover of Invasive Herbaceous Perennial Species ¹ | < 5% | < 5% | < 5% | < 1% | < 1% | < 1% |
| Absolute Cover of Nonnative Cover | < 10% | < 10% | < 10% | < 5% | < 5% | < 5% |

¹ Aquatic nonnative species will not be included in the absolute cover measurements. Species are considered invasive species if they receive a moderate or high threat rating from the California Invasive Plant Council.
PEP = Plant-Establishment Period.

7.1 Monitoring Program

The monitoring program is used to identify and correct problems efficiently as well as document the success of the project. A combination of qualitative and quantitative monitoring will be used. The monitoring schedule can be found in Table 17.

7.1.1 Implementation and 120-Day Plant Establishment Period

The Restoration Ecologist, who will be onsite weekly during implementation of the project, will prepare brief monthly memoranda that document implementation progress. The memorandum will be submitted to the Owner. The Installation Contractor will be responsible for the 120-day PEP after the grading, erosion control, and native plant installation are complete to ensure that the site meets defined success criteria and is established in a desirable manner prior to the start of the 5-year maintenance and monitoring program. The Installation Contractor will receive approval from the Restoration Ecologist, Lennar, and Carlton Oaks indicating a successful implementation and 120-day PEP before the start of the 5-year maintenance and monitoring program. In addition, the installation process will require the Restoration Ecologist to inspect and approve progress at the following times:

- During the removal of nonnative trees and Arundo.
- During the creation of 0.43 acre of habitat.
- At the end of the creation of 0.43 acre of habitat.
- During the salvage and installation of cuttings.
- At the time of container plant delivery, the Restoration Ecologist will inspect container plant materials to confirm the receipt of the correct species and that the plants are healthy, disease free, and of proper size prior to planting.
- During final container plant layout to ensure correct ecological positioning.
- When the contractor requests inspection to determine if installation is complete.

7.1.2 Qualitative Monitoring

The goal of qualitative monitoring is to proactively assess site conditions and address issues before they become a problem. Qualitative monitoring will include performing all required installation inspections described above. An important feature of the qualitative monitoring is effective coordination with the installation and Maintenance Contractor(s) to exchange information, provide feedback, and agree on priority maintenance items and potential remedial measures as needed. The Restoration Ecologist will perform qualitative monitoring throughout the installation period and the 5-year maintenance and monitoring program (Table 17). Each qualitative monitoring visit will focus

on soil conditions (e.g., moisture and fertility), container plant health and growth, seed germination rates, the presence of native and nonnative plant species, any significant disease or pest problems, and any erosion problems.

Table 17. Monitoring Schedule

| Monitoring Efforts | Frequency |
|-------------------------------|---|
| Implementation | Weekly |
| 120-Day PEP | Monthly |
| Qualitative Monitoring Visits | Every two months Years 1 and 2; quarterly Years 3–5 |
| Quantitative Monitoring Visit | Annually late spring/early summer |

PEP = Plant-Monitoring Period.

During installation, the Restoration Ecologist will inspect progress on a weekly basis and then at least once a month during the 120-day PEP. During each qualitative monitoring visit, the Restoration Ecologist will conduct a site overview of the restoration and mitigation areas to evaluate the following as applicable:

- Overall site conditions
- General condition of plants, including plant health/vigor and mortality
- Seed germination rates
- Native plant recruitment
- Presence and type of terrestrial fauna using the mitigation site
- Potential issues, including hydrology, invasive nonnative species of concern (e.g., Arundo), vandalism, and other problems to be addressed by the Installation or Maintenance Contractor

During the first 2 years, the Restoration Ecologist will be responsible for a visual estimate of plant survival and condition during qualitative visits and assess the need for potential remedial planting during the winter. Recommendations will be included in the fall quarterly memoranda for winter planting. Recommendations may include container planting and broadcast seeding.

7.1.3 Quantitative Monitoring

7.1.3.1 Photo-Documentation

Permanent stations for photo-documentation will be established during the implementation period using a GPS unit. The locations and bearings of the photo stations will be mapped in the annual monitoring report. The photos will be used to document the installation process in addition to the vegetation establishment. Permanent stations will ensure that photographs will be taken from the same location, at the same time of year, and in the same compass direction each year. Following the 120-day PEP, photos will be taken twice a year (6 months apart) at these fixed locations and cataloged to be included in the annual reports. Photographs will reflect material discussed in the annual monitoring report and document the progress of the site.

7.1.3.2 Vegetation

The Temporary Impact Mitigation area will be semi-quantitatively measured using the CNPS relieve protocol (CNPS 2007), as the small size of the area is not suitable for transects or quadrats. The temporary impact-mitigation area will be assessed as a whole, and a plant list and visual estimate of absolute cover for each species will be made.

The permanent impact-mitigation areas will be quantitatively measured using eight semi-permanent transects, with two 25-meter transects established in Mitigation Area 1, and two 50-meter transects each in Mitigation Areas 2-4, for a total of 8 transects within mitigation areas. These transects will be used to determine native and nonnative cover in mitigation areas during the 5-year maintenance and monitoring program.

During Year 1, each transect will be marked with a metal rebar post. All posts will also have the top of the bar covered with plastic or rubber material for safety and visibility. The locations of all transects will be marked using a GPS unit and displayed on a site map in the annual report. Data will be collected each year during late spring/early summer (May to July), and sampling times will be consistent from year to year to minimize variation in the data.

For each transect, the *point-intercept method* will be used to record the species. The sampling method will be based on a point-intercept transect centered on a 5-meter belt transect plot. At each 50-centimeter interval along the transects (beginning at the 50-centimeter mark), a point will be projected vertically into the vegetation. Each species intercepted by a point will be recorded, providing a tally of hits for each species in the herb, shrub, and tree canopies. The measuring tape will be stretched taught to maintain a consistent sampling area. Absolute cover for each species, according to vegetation layer, can be calculated from these data (CNPS 1995) as follows:

$$\text{Cover} = \text{number of points covered by a species} / \text{total number of points} \times 100 \text{ percent}$$

The cover of all native, nonnative, and invasive plants, as defined by the California Invasive Plant Council's Invasive Plant Inventory of Priority Species, will be calculated for each transect. In addition to cover, native species richness will be measured for each belt transect. For each 5-meter belt transect (centered on the point-intercept transect), all species present will be recorded, and a count of all native species will be presented. Only plants rooted within the belt will be counted. In addition, a complete list of additional species occurring within the restoration area will be recorded to measure total species richness.

7.2 Reporting

The results of the qualitative monitoring visits will be summarized in field memoranda that will be submitted to the Owner within 2 weeks following each site visit. The memoranda, when finalized, will be summarized in the annual reports to be submitted to the Owner, for distribution to relevant agencies and the City of Santee Department of Development Services. Annual reports will detail maintenance activities, trends, and general site conditions; provide photographs spanning the year; compare quantitative data and performance criteria; and make recommendations.

7.3 Adaptive Management Plan

Pursuant to 33 CFR 332.7(c) of the 2008 Mitigation Rule (33 CFR 325 and 332; 40 CFR 230), the restoration plan must include an adaptive-management strategy to account for unforeseen problems in the implementation, short-term development, and overall success of the mitigation program. The Restoration Ecologist will be present for imperative activities in order to make decisions about how to manage the mitigation design and overall goals of the project.

Weed removal and the container plant and cutting installation methodology can be adjusted at the recommendation of the Restoration Ecologist. Minor adaptive measures, such as replanting, reseeding, increased weeding frequency, or minor modifications to the protocol, will be implemented, upon the Owner' approval, by the Maintenance Contractor. The Owner bears the ultimate responsibility for meeting the success criteria outlined in Section 6.1, *Ecological Performance Standards* and if the site does not meet the final success criteria, they will be responsible for performing remedial actions, additional years of monitoring and maintenance, and any other activities required by the regulatory agencies for sign-off.

Interim performance standards (annual standards for Years 1–4, Table 14–Table 16) are crucial to ensuring that mitigation performance follows a course to final mitigation success (Year 5 standards). Although not anticipated, if these interim performance standards are not achieved during annual monitoring, the Restoration Ecologist will work with the mitigation team to readjust efforts or with regulatory agencies if the problems require substantial action.

Chapter 8

Completion of Mitigation Requirements

8.1 Notification of Completion

Upon achievement of the 5-year ecological performance standards and completion of the 5-year maintenance and monitoring period, Lennar, and Carlton Oaks and its Restoration Ecologist will prepare a final monitoring report and notice of completion. The final report will detail whether all requirements and performance standards of the HMMP have been met.

The final monitoring report will be submitted to the regulatory agencies and the City of Santee Department of Development Services for verification of successful completion and final acceptance, and the Owner will extend an invitation for a final agency site visit. Pursuant to Section 7.3, *Adaptive Management Plan*, the Restoration Ecologist will consult with regulatory agencies annually if substantial remedial actions are needed to achieve performance standards. Should any of the restoration areas fail to meet the final performance standards at the end of the 5-year maintenance and monitoring period, the Owner will consult with the regulatory agencies to determine if any additional actions are needed to attain the 5-year ecological performance standards or if alternative mitigation options need to be pursued.

8.2 Agency Confirmation of Site Performance

Upon receipt of the final report, the regulatory agencies shall either confirm that the required performance standards have been met or accept an invitation for a site visit. If regulatory agency personnel reject terminating the 5-year monitoring and maintenance program, reasons for the objection should be clearly stated so that corrective measures may be immediately scheduled. the Owner will schedule a meeting to resolve agency concerns, which may include implementing additional adaptive management measures or arranging to extend the monitoring period. Upon acceptance of termination of the 5-year monitoring and maintenance program, the Owner will request a letter verifying successful completion of the mitigation plan.

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Chapter 9

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Attachment 1
Potential Species to Occur

Attachment 1. Sensitive Animal Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? (Historical and/or current observations) | Potential to Occur | Rationale |
|---|---------------------------------|---|--|--|---|
| INVERTEBRATES | | | | | |
| Crotch's Bumble Bee (<i>Bombus crotchii</i>) | SCE | Forages over a wide variety of habitats. Establishes nesting colonies in cavities in a variety of different substrates including thatched grasses, abandoned rodent burrows or bird nests, brush piles, rock piles, and fallen logs. | No | Low | Study area is primarily golf course and riparian areas with limited undeveloped areas for foraging or nesting |
| Hermes Copper Butterfly (<i>Lycaena hermes</i>) | FC | Mature spiny redberry host plant (<i>Rhamnus crocea</i>) surrounded by California buckwheat nectaring resources. | No | Not expected | Host plant spiny redberry (<i>Rhamnus crocea</i>) not present within study area. |
| Monarch - California overwintering population (<i>Danaus plexippus</i> pop.1) | FC | Eucalyptus or other tall trees within 1 mile of the Pacific Ocean from Santa Barbara south to Baja California Norte | Yes - foraging | Foraging: present. Breeding: Not expected | This inland site is subject to frosts during winter nights and is unsuitable as an overwintering site for monarch. Site does not support milkweed (<i>Asclepias</i> spp.) for breeding. Site contains native and ornamental vegetation which may be used for nectaring. Observed in August 2024 during surveys for Crotch's bumblebee. |
| Quino Checkerspot Butterfly (<i>Euphydryas editha quino</i>) | FE | Inhabits openings on clay soils within or in the vicinity of shrublands, grasslands, meadows, vernal pools, and lake margins. Closely tied to its larval host plant, dwarf plantain (<i>Plantago erecta</i>) or owl's clover (<i>Castilleja exserta</i> ssp. <i>exserta</i>). | No | Not expected | No suitable habitat present in the study area. |
| Riverside Fairy Shrimp (<i>Streptocephalus woottoni</i>) | FE MSCP SD | Vernal pools, cattle ponds, detention basins, and other longer-duration seasonally inundated basins. It occurs from Los Angeles County to Baja California. In San Diego County, all populations are within 15 kilometers of the coast. | No | Not expected | No suitable habitat observed on the study area. |
| San Diego Fairy Shrimp (<i>Branchinecta sandiegoensis</i>) | FE MSCP SD | Vernal pools and road ruts. All known localities are below 701m (2,300 ft) and are within 64km (40 miles) of the Pacific Ocean, within San Diego and Orange Counties, and Baja California Norte. | No | Not expected | No suitable habitat observed on the study area. |

Attachment 1. Sensitive Animal Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? (Historical and/or current observations) | Potential to Occur | Rationale |
|---|---------------------------------|--|--|-----------------------|---|
| AMPHIBIANS | | | | | |
| Arroyo Toad (<i>Anaxyrus californicus</i>) | FE SSC MSCP SD | Exposed shallow pools with a sand or gravel base are used for breeding. Breeding pools must occur in the vicinity (ca. 10-100 m) of a braided sandy channel with shorelines or central bars made of stable, sandy terraces. | No | Low | Riparian habitat within the study area is too dense for this species. In the San Diego River, is known from above El Capitan Reservoir. |
| Western Spadefoot (<i>Spea hammondi</i>) | FPT SSC | Temporary rainpools with water temperatures between 9°C and < 30°C that last at least 3 weeks. | No | Low | Limited potential for slack-water, ephemeral basins within the riparian area of the study area. |
| REPTILES | | | | | |
| Belding's Orange-throated Whiptail (<i>Aspidoscelis hyperythra beldingi</i>) | SSC MSCP SD | The habitat characteristics are poorly understood, however historically it was found in floodplains or terraces along streams. Closely tied to coastal sage scrub plants and some chaparral plants. | No | High | Known from the vicinity (CNDDB 2019) and suitable habitat occurs on the study area. |
| Blainville's (Coast/San Diego) Horned Lizard (<i>Phrynosoma blainvillii</i>) | SSC MSCP SD | Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging. | No | Low | Very little suitable habitat occurs within the study area. |
| Coast Patch-nosed Snake (<i>Salvadora hexalepis virgulata</i>) | SSC | Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. | No | Moderate | Suitable habitat occurs within the study area. |
| Coronado Skink (<i>Plestiodon skiltonianus interparietalis</i>) | WL | Forest, open woodland and grassy areas. Usually found under leaf litter, logs or rocks. | No | Moderate | Suitable habitat occurs within the study area. |
| Red Diamond Rattlesnake (<i>Crotalus ruber</i>) | SSC | Occurs from sea level to 914m (3000ft) in chaparral, woodland, and arid desert habitats with rocky areas and dense vegetation. | No | Low | Very little suitable habitat occurs within the study area. |
| Southern California Legless Lizard (<i>Anniella stebbinsi</i>) | SSC | Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas often indicate suitable habitat. | No | Medium | Suitable habitat occurs in the study area. |

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|--|---------------------------------|---|--|---|---|
| Southwestern Pond Turtle (<i>Actinemys pallida</i>) | FPT SSC MSCP SD | Requires slack- or slow-water aquatic habitat as well as aerial and aquatic basking sites. Also requires an upland oviposition site on an unshaded slope with clay soils, in the vicinity of the aquatic site. | No | Low | Not observed during trapping surveys in 2019. Suitable freshwater pond habitat occurs on the study area. Melanistic red-eared sliders were trapped, which are visually similar to southwestern pond turtle. |
| Two-striped Gartersnake (<i>Thamnophis hammondi</i>) | SSC | Inhabits perennial and intermittent streams with rocky beds and bordered by willow thickets or other dense vegetation. | No | High | Suitable stream and pond habitat occurs within the study area. |
| BIRDS | | | | | |
| Double-crested Cormorant (<i>Phalacrocorax auritus</i>) | WL | Fish eating diving bird. Nests at communal sites. | Yes | Breeding: Present | Rookery observed in eucalyptus trees along the large pond in Sycamore Creek. This represents one of the only rookery sites in San Diego County (Unitt 2004). |
| Least Bittern (<i>Ixobrychus exilis</i>) | SSC | Dense freshwater marshes with tules and cattails. | No | Low | Uncommon species. Freshwater marsh habitat onsite is small and marginally suitable. |
| White-faced Ibis (<i>Plegadis chihi</i>) | WL MSCP SD | Forages in marshes, swamps, ponds and rivers, mostly in freshwater habitats. Nests in emergent vegetation or low trees and shrubs over shallow water; sometimes on ground on small islands. | No | Nesting - None Foraging - moderate | Potential to forage in the golf course. |
| White-tailed Kite (<i>Elanus leucurus</i>) | FP (nesting) | Open grasslands, agricultural areas, wetlands, and oak woodlands. Their primary source of food is the California vole. It typically forages in open undisturbed habitats and nests in the top of a dense oak, willow or other large tree. | No | High | Suitable foraging and nesting habitat present in the study area. Previously recorded in the study area (HELIX 2017, CNDDB 2019). |
| Northern Harrier (<i>Circus cyaneus</i>) | SSC (nesting) MSCP SD | Grasslands and marshes. Nests are on the ground and typically concealed within a marsh or other dense vegetation. | No | Breeding - Low Foraging - Medium | Suitable foraging present in the study area. Very little suitable nesting habitat present. |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | MSCP SD | Oak groves and mature stands of riparian woodland. This species has adapted well to development and is abundant in urban canyons with eucalyptus trees. | Yes | Present | Observed on the study area during avian surveys. Suitable foraging and nesting habitat present in the study area. |

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|--|---------------------------------|---|--|--|--|
| Golden Eagle (<i>Aquila chrysaetos</i>) | FP MSCP SD | Nest on cliff ledges or trees on steep slopes. Forage in grasslands, sage scrub or broken chaparral. | No | Nesting - None Foraging - Low | No suitable nesting habitat occurs on the study area. Not expected to frequent urban areas.. |
| Peregrine Falcon (<i>Falco peregrinus</i>) | SE MSCP SD | Will forage over a variety of habitats however only breed near water, typically with the nest placed on a cliff ledge. | No | Breeding - None Migration & Wintering Moderate | No suitable nesting habitat present in the study area. Could forage over the site. |
| Western Burrowing Owl (<i>Athene cunicularia hypugaea</i>) | SCE SSC MSCP SD | Prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial, open areas. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. They use rodent or other burrows for roosting and nesting cover and also known to use pipes, culverts, and nest boxes where burrows are scarce. | No | Not expected | Suitable burrow habitat not present within the study area. Species not known to nest in the vicinity. |
| Long-eared Owl (<i>Asio otus</i>) | SSC | Rare residents of oak woodlands and broad riparian forests. Ideal nesting habitat has a closed canopy and open lands adjacent for foraging. | No | Moderate | Known to historically occur in the vicinity (Unitt 2004). |
| Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i>) | FE SE MSCP SD | Breeds in riparian woodlands along rivers, streams, or other wetlands. They usually nest within close proximity of water or very saturated soil. | No | Not expected | Species was not observed during protocol surveys in 2019, nor incidentally during 2022 LBVI surveys. Species is not known to currently occupy this vicinity of the lower San Diego River (CNDDDB 2019; USGS unpublished data). |
| Vermilion Flycatcher (<i>Pyrocephalus obscurus</i> , formerly <i>P. rubinus</i>) | SSC | Vermilion Flycatcher is rare and scattered in San Diego County. Its characteristic habitat of open riparian woodland and mesquite bosques on desert floodplains is barely represented in San Diego County, though the birds and their habitat occur in the drainage basin of the Tijuana River (Unitt 2004). May occur in man-made savannas including golf courses and cemeteries. | Yes | Present | Species was observed in 2024. Suitable breeding habitat exists within the study area including riparian edges and ornamental trees within the golf course. |

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|--|---------------------------------|--|--|-----------------------|--|
| Loggerhead Shrike (<i>Lanius ludovicianus</i>) | SSC | Found near grassland, open sage scrub and chaparral, and desert scrub. They nest in dense vegetation adjacent to their open foraging habitats. | No | Low | Suitable habitat is present but species is rare in the area. |
| Least Bell's Vireo (<i>Vireo bellii pusillus</i>) | FE SE MSCP SD | Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons. | Yes | Present | Observed within riparian habitat along the San Diego River and in the northeastern side of the project. Observed in the riparian forest where Sycamore Creek enters the site. Not observed along Sycamore Creek within the project footprint. Has previously been observed along the San Diego River on the western end of the site (CNDDDB 2019). |
| California Horned Lark (<i>Eremophila alpestris actia</i>) | WL | Grasslands, recently disturbed habitat where seeds and insects are easy to find. | No | Moderate | Suitable habitat observed within the study area. |
| Coastal (San Diego) Cactus Wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>) | SSC MSCP SD | Thickets of large and/or dense mature cactus, primarily including prickly pear (<i>Opuntia</i> spp.) and cholla (<i>Cylindropuntia</i> spp.). | No | Not expected | No suitable cactus patches occur within the study area. |
| Coastal California Gnatcatcher (<i>Poliophtila californica californica</i>) | FT SSC MSCP SD | Prefer open scrubby habitats such as coastal sage scrub | No | Not expected | Very little appropriate habitat occurs within the study area. Species not observed during focused surveys in 2019. |
| Western Bluebird (<i>Sialia mexicana</i>) | MSCP SD | Foothills and mountains in meadows near groves of oaks and pines. This species is a cavity nester. | Yes | Present | Observed in several locations in riparian forest. Mature riparian forest is potential nesting habitat for this species. |
| Yellow Warbler (<i>Dendroica petechia brewsteri</i>) | SSC | Summer breeder in mature riparian woodlands. | Yes | Present | Observed in several locations in riparian forest. Mature riparian forest is potential nesting habitat for this species. |
| Yellow-breasted Chat (<i>Ictera virens</i>) | SSC | Summer breeder in dense riparian woodland. | Yes | Present | Observed in several locations in riparian forest. Mature riparian forest is potential nesting habitat for this species. |

Attachment 1. Sensitive Animal Species Potential to Occur

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|---|---------------------------------------|---|--|---|--|
| Southern California Rufous-crowned Sparrow (<i>Aimophila ruficeps canescens</i>) | WL MSCP SD | Fairly common, widespread and generally fairly conspicuous resident of rocky grassland and patchy shrub habitats, often including areas with disturbance from fire, trash, soil compaction and non-native vegetation. | No | Low | Very little suitable habitat present in the study area. |
| Bell's Sparrow (<i>Artemisiospiza belli</i>) | WL | Year-round resident of chaparral and sage scrubs. Forages on litter-free openings on the ground, and is largely restricted to south-facing slopes, post-burn areas, and gabbro soils. | No | Low | Very little suitable habitat present in the study area. |
| Grasshopper Sparrow (<i>Ammodramus savannarum</i>) | SSC | Structurally diverse grassland usually with native grasses. | No | Not expected | No suitable grassland habitat present in the study area. Grasses present in the BSA |
| Tricolored Blackbird (<i>Agelaius tricolor</i>) | ST SSC (nesting colony) MSCP SD | Breeds near fresh water, preferably in emergent wetland with large, dense stands of cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats near its breeding habitat. | No | Breeding – No Expected Foraging - Moderate | Species requirements include large (>2 acre) areas of cattail marshes or blackberry thickets. No suitable breeding habitat exists within the study area. Suitable breeding habitat may exist in the region (e.g., Lindo Lakes and Santee Lakes) so there is potential for the species to move through the area or forage on the golf course. The MSCP identifies that foraging opportunities will continue to be provided and created in turfed areas such as golf courses and cemeteries. |
| MAMMALS | | | | | |
| Mexican Long-tongued Bat (<i>Choeronycteris mexicana</i>) | SSC | Likes desert canyons, arid mountain ranges. Roosts by day in caves, mines or buildings. Records indicate only a summer resident in San Diego County (CDFG 2005). Feeds on nectar and pollen from agaves and cactus blossoms. | No | Not expected | The study area lacks required food sources to support this species. |
| Western Red Bat (<i>Lasiurus blossevillii</i>) | SSC | Usually among dense foliage, in forests and wooded areas, making long migrations from the northern latitudes to warmer climes for winter, sometimes hibernates in tree hollows or woodpecker holes. | No | Roosting habitat-Low Foraging habitat-Moderate | Marginal suitable habitat occurs on the study area. Appropriate foraging habitat present. |

Attachment 1. Sensitive Animal Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? (Historical and/or current observations) | Potential to Occur | Rationale |
|--|---------------------------------|--|--|--|--|
| Western Yellow Bat (<i>Lasiurus xanthinus</i>) | SSC | Rare visitor to San Diego County. Found in wooded areas and desert scrub. Roosts in foliage, particularly in palm trees. | No | Low | Suitable habitat present in the study area but species is rare and would not be expected. |
| Pallid Bat (<i>Antrozous pallidus</i>) | SSC | Throughout So. Cal. from coast to mixed conifer forest; grasslands, shrublands, woodlands, & forest; most common in open, dry habitats w/ rocky areas for roosting; yearlong resident in most of range. Roosts in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows. | No | Roosting habitat-None Foraging habitat-Moderate | No suitable habitat occurs on the study area. Appropriate foraging habitat present. |
| Pocketed Free-tailed Bat (<i>Nyctinomops femorosaccus</i>) | SSC | Lives in deserts and sage scrub, roosts in rocky crevices. | No | Low | Marginal suitable habitat occurs in the study area. |
| Big Free-tailed Bat (<i>Nyctinomops macrotis</i>) | SSC | Inhabits arid, rocky areas; roosts in crevices in cliffs. Has been recorded in urban locations in San Diego County (CDFG 2005). Species is rare in California (CDFG 2005). | No | Roosting habitat-Low Foraging habitat-Moderate | Marginal suitable habitat occurs on the study area. Appropriate foraging habitat present. |
| Western Mastiff Bat (<i>Eumops perotis californicus</i>) | SSC | Primarily a cliff-dwelling species for breeding. Found foraging in a variety of habitats, from dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas. | No | Roosting habitat-None Foraging habitat-Moderate | No suitable habitat occurs on the study area. Appropriate foraging habitat present. |
| San Diego Black-tailed Jackrabbit (<i>Lepus californicus bennettii</i>) | SSC | Mostly found on the coastal side of our local mountains in open habitats, usually avoiding dense stands of chaparral or woodlands. | No | Moderate | Suitable habitat present in the study area. Distinctive diurnal species not observed during surveys. |
| Dulzura Pocket Mouse (<i>Chaetodipus californicus femoralis</i>) | SSC | Coastal and montane regions in grassland, sage scrub, and chaparral slopes. | No | Moderate | Suitable habitat is present in the study area. |
| Northwestern San Diego Pocket Mouse (<i>Chaetodipus fallax fallax</i>) | SSC | Coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. | No | Low | Very little suitable habitat is present in the study area. |
| Stephens' Kangaroo Rat (<i>Dipodomys stephensi</i>) | FT ST | Occurs in flat or gently rolling, often degraded, annual grassland. | No | Not expected | No suitable habitat for this species in the study area. |

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| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? (Historical and/or current observations) | Potential to Occur | Rationale |
|---|---------------------------------|--|--|-----------------------|--|
| Ramona Grasshopper Mouse (<i>Onychomys torridus ramona</i>) | SSC | Grasslands and sparse coastal sage scrub habitats. | No | Low | Very little suitable habitat is present in the study area. |
| Bryant's (San Diego Desert) Woodrat (<i>Neotoma bryanti</i>) | SSC | Variety of shrub and desert habitats primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. | No | Low | Very little suitable habitat is present in the study area. |
| American badger (<i>Taxidea taxus</i>) | SSC MSCP SD | Inhabit a diversity of habitats with principal requirements of sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred. | No | Low | Marginal suitable habitat occurs on the study area. Isolated from other grasslands. Rare species in the County; could move through the site. |
| Mountain Lion (<i>Puma (=Felis) concolor</i>) | MSCP SD | Rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral, as well as riparian areas. | Yes | Moderate | The San Diego River provides appropriate movement habitat for this species. Mountain lion would normally avoid the areas surrounded by dense urban areas such as Santee. |
| Southern Mule Deer (<i>Odocoileus hemionus fuliginatus</i>) | MSCP SD | Oak woodlands, open scrub and young chaparral, low-elevation pine forests, riparian areas, and along the margins of meadows and grasslands. | Yes | Present | Observed within the study area. |

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| Common Name (<i>Scientific Name</i>) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? (Historical and/or current observations) | Potential to Occur | Rationale |
|--|---------------------------------|------------------------------------|--|-----------------------|-----------|
| <p>LEGEND:</p> <p>STATUS:</p> <p>Federal FE - listed as endangered under the federal Endangered Species Act. FT - listed as threatened under the federal Endangered Species Act. FC- candidate species under the federal Endangered Species Act. FPT- proposed threatened under the federal Endangered Species Act.</p> <p>California SE - listed as endangered under the California Endangered Species Act. ST - listed as threatened under the California Endangered Species Act. SCE – candidate for endangered under the California Endangered Species Act FP – fully protected species in California. SSC - species of special concern in California. WL – CDFW watch list species</p> <p>San Diego Multiple Species Conservation Program (MSCP) MSCP SD – City of San Diego Subarea Plan Covered Species MSCP SD NE – City of San Diego Subarea Plan Covered Species and Narrow Endemic Species</p> <p>References Special Status information from CDFW 2023. Nomenclature and invertebrate descriptions from Eriksen and Belk 1999, Hogan 2005, and USFWS 1997. Nomenclature and vertebrate descriptions from AOU 1998 and supplements, Cornell Birds of the World 2023, CDFG 2005, SSAR 2023, Thompson et al. 2016, Tremor et al 2017, and Unitt 2004.</p> | | | | | |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|--|---------------------------------------|-----------------------|---|
| San Diego thornmint (<i>Acanthomintha ilicifolia</i>) | FT/CE CRPR List 1B.1 MSCP SD NE MSCP Santee | Grassy openings in chaparral and coastal sage scrub, grassland, vernal pools. Prefers friable or broken clay soils. 10-960m. Blooming period: April-June | No | Not Expected | Site soils consists primarily of alluvium. No suitable clay soils for this species are present. |
| Nuttall's lotus (<i>Acmispon prostratus</i>) | CRPR 1B.1 MSCP SD | Annual herb. Coastal dunes and sandy coastal scrub; 0-10 m (0-32 ft). Blooming period: March - July | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| California adolphia (<i>Adolphia californica</i>) | CRPR 2B.1 | Chaparral, coastal scrub, grassland. 45-740m Blooming period: Dec-May | No | Not Expected | Diegan coastal sage scrub within the study area is primarily broom baccharis recruits on a road embankment. This species would not be expected to volunteer on this sort of location. Would have been observed if present during rare plant or gnatcatcher surveys. |
| Shaw's agave (<i>Agave shawii</i> var. <i>shawii</i>) | CRPR 2B.1 MSCP SD NE | Perennial leaf succulent. Coastal bluff scrub, coastal scrub; 10-120 m (32-393 ft). Blooming period: September - May | No | Not Expected | No appropriate coastal bluff habitat is present in the study area. |
| San Diego bur-sage (<i>Ambrosia chenopodiifolia</i>) | CRPR 2B.1 | Perennial shrub. Coastal scrub; 55-155 m (178-508 ft). Blooming period: April - June | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| Singlewhorl burrobush (<i>Ambrosia monogyra</i>) | CRPR 2B.2 | Chaparral, riparian scrub, and Sonoran desert scrub in sandy soil 10-500m Blooming period: Aug-Nov | No | Low | This species has potential to occur in sandy coastal floodplains. Prominent woody species was not observed during focused rare plant surveys for this species. |
| San Diego ambrosia (<i>Ambrosia pumila</i>) | FE CRPR 1B.1 MSCP SD NE MSCP Santee | Chaparral, coastal sage scrub, grassland, vernal pools, often in disturbed areas. Can occur in creek beds, seasonally dry drainages, and floodplains. 20-415m Blooming period: Apr-Oct | No | Low | Potential to occur on benches on or near floodplains of large rivers, but not observed during focused rare plant surveys for this species. |
| Aphanisma (<i>Aphanisma blitoides</i>) | CRPR 1B.2 MSCP SD NE | Annual herb. Sandy soils in coastal bluff scrub, coastal dunes, and coastal scrub; 1-305 m (3-1000 ft). Blooming period: March - June | No | Not Expected | Species of the immediate coast. Appropriate soils not present in the study area. |
| Del Mar manzanita (<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>) | FE CRPR 1B.1 MSCP SD | Low growing chaparral with eroding sandstone as substrate. 0-365m Blooming period: Dec-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|-------------------------------------|---|---------------------------------------|-----------------------|---|
| Otay manzanita (<i>Arctostaphylos otayensis</i>) | CRPR 1B.2 MSCP SD | Evergreen shrub. Chaparral or cismontane woodlands on volcanic rock outcrops; 275-1700 m (902-5576 ft). Blooming period: January - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| San Diego sagewort (<i>Artemisia palmeri</i>) | CRPR 4.2 | Chaparral, coastal scrub, riparian habitats in sandy soil 15-915m Blooming period: Feb-Sept | Yes | Present | Species was observed within San Diego River within the study area buffer. Not present within the project boundary. |
| Dean's milkvetch (<i>Astragalus deanei</i>) | CRPR 1B.1 | Open shrubby slopes. Associated with coastal sage scrub, chaparral, and sandy washes. 75-695m Blooming period: Feb-May | No | Not Expected | No appropriate habitat is present in the study area. |
| Coastal dunes milk vetch (<i>Astragalus tener</i> var. <i>titi</i>) | FE, SE CRPR 1B.1 MSCP SD NE | Annual herb can be found in dune, coastal sage scrub, coastal prairie and vernal pool habitats. Blooming period: March to May. | No | Not Expected | This is a species of coastal dunes. No reasonable potential at this inland site. Presumed extirpated from San Diego beaches. |
| Coulter's saltbush (<i>Atriplex coulteri</i>) | CRPR 1B.2 | Coastal habitats and grassland in alkaline or clay soils 3-460m Blooming period: Mar-Oct | No | Not Expected | No appropriate habitat is present in the study area. |
| Parish brittlescale (<i>Atriplex parishii</i>) | CRPR 1B.1 | Chenopod scrub, playas, vernal pools. 25-1900m Blooming period: Jun-Oct | No | Not Expected | No appropriate habitat is present in the study area. |
| Encinitas baccharis (<i>Baccharis vanessae</i>) | FT/CE CRPR 1B.1 MSCP SD | Generally coastally influenced chaparral and, cismontane woodland. 60-720m Blooming period: Aug-Nov | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Golden-spined cereus (<i>Bergerocactus emoryi</i>) | CRPR 2B.2 | Perennial stem succulent. Sandy soils in costal scrub, chaparral, and closed-cone coniferous forest, moist ocean breezes may be a key to its habitat requirements; 3-395 m (9-1295 ft). Blooming period: May - June | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| San Diego goldenstar (<i>Bloomeria clevelandii</i>) | CRPR 1B.1 MSCP SD MSCP Santee | Openings in chaparral or coastal scrub; grasslands and vernal pools in clay soils. 50-465m Blooming period: Apr-May | No | Low | The species is known from the hills to the north, but the soils of the site consist primarily of alluvium. No suitable clay soils for this species are present. Not observed during focused rare plant surveys. |
| Thread-leaved brodiaea (<i>Brodiaea filifolia</i>) | FT/CE CRPR 1B.1 MSCP SD NE | Openings in cismontane woodlands, chaparral, and coastal scrub, playas, grasslands, and vernal pools, often in clay soils 25-1120m Blooming period: Mar-Jun | No | Not Expected | Site soils consists primarily of alluvium. No suitable clay soils for this species are present. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|---------------------------------|--|---------------------------------------|-----------------------|--|
| Orcutt's brodiaea (<i>Brodiaea orcuttii</i>) | CRPR 1B.1 MSCP SD | Moist grasslands, near streams and the periphery of vernal pools. 0-1600m (0-5249ft). Blooming period: May-July | No | Not Expected | While this species is normally found in mesic sites, it is not associated with riverine floodplains. The soils of the site consist primarily of alluvium. No suitable clay soils or vernal pools for this species are present. |
| Lakeside ceanothus (<i>Ceanothus cyaneus</i>) | CRPR 1B.2 SD MSCP NE | Closed-cone coniferous forest, dense chaparral of central San Diego County. 235-755m Blooming period: Apr-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Otay Mountain ceanothus (<i>Ceanothus otayensis</i>) | CRPR 1B.2 | Perennial evergreen shrub. Metavolcanic or gabbroic chaparral; 600-1100 m (1968-3608 ft). Blooming period: January - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Wart-stemmed ceanothus (<i>Ceanothus verrucosus</i>) | CRPR 2B.2 MSCP SD | Evergreen shrub of chaparral in the coastal fog belt. 1-380m Blooming period: Dec-May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Southern tarplant (<i>Centromadia parryi</i> ssp. <i>australis</i>) | CRPR 1B.1 | Marshes and swamps, valley and foothill grassland(mesic), vernal pools 0-425m Blooming period: May-Nov | No | Low | Marginally suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>) | CRPR 1B.1 | Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland 0-640m Blooming period: Apr-Sept | No | Low | Marginally suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Orcutt's pincushion (<i>Chaenactis glabruiscula</i> var. <i>orcuttiana</i>) | CRPR 1B.1 | Annual herb. Sandy openings in closed-cone coniferous forest, maritime chaparral, and coastal scrub; 3-125 m (9-410 ft). Blooming period: March - May | No | Not Expected | No appropriate habitat is present in the study area. |
| Salt marsh bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>) | FE, CE, CRPR 1B.2 MSCP SD | Hemiparasitic annual herb. Coastal dunes and coastal salt marshes and swamps; 0-30 m (0-100 ft). Blooming period: May - October | No | Not Expected | No appropriate habitat is present in the study area. |
| Orcutt's spineflower (<i>Chorizanthe orcuttiana</i>) | FE, CE, CRPR 1B.1 | Annual herb. Clay lenses, largely devoid of shrubs in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools; 30-1530 m (100-5,020 ft). Blooming period: April - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>) | CRPR 1B.2 | Clay lenses, largely devoid of shrubs. Occasionally seen on the periphery of vernal pool habitat and the periphery of montane meadows near vernal seeps. Below 1400m (4,600ft). Blooming period: Apr-Jul | No | Not Expected | No appropriate habitat is present in the study area. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------------|--|---------------------------------------|-----------------------|---|
| Delicate clarkia (<i>Clarkia delicata</i>) | CRPR 1B.2 | Oak woodlands and chaparral often in gabbro soils. 235-1000m (770-3,300ft). Blooming period: Apr-Jun | No | Not Expected | No appropriate soils are present in the study area. |
| San Miguel savory (<i>Clinopodium chandleri</i>) | CRPR 1B.2 MSCP SD | Chaparral, cismontane woodland, coastal scrub, riparian woodland, and grasslands in rocky, gabbro, or metavolcanic soils 120-1075m Blooming period: Mar-Jul | No | Not Expected | No appropriate habitat is present in the study area. |
| Summer holly (<i>Comarostaphylis diversifolia</i> var. <i>diversifolia</i>) | CRPR 1B.2 | Southern mixed chaparral, usually on mesic north-facing slopes. Almost the entire population occurs west of Interstate 15. 100-550m (328-1804ft). Blooming period: Apr-Jun | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| San Diego sand aster (<i>Corethrogyne filaginifolia</i> var. <i>incana</i>) | CRPR 1B.1 | Perennial herb. Coastal bluff scrub, chaparral, and coastal scrub; 3-115 m (10-377 ft). Blooming period: June - September | No | Not Expected | No appropriate habitat is present in the study area. |
| Del Mar Mesa sand aster (<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>) | CRPR 1B.1 MSCP SD | Perennial herb. Sandy soils in coastal bluff scrub, coastal scrub, and openings in maritime chaparral; 15-150 m (49-492 ft). Blooming period: May-September | No | Not Expected | No appropriate habitat is present in the study area. |
| Snake cholla (<i>Cylindropuntia californica</i> var. <i>californica</i>) | CRPR 1B.1 MSCP SD NE | Stem succulent. Chaparral and coastal scrub, typically on xeric hillsides; 30-150 m (98-492 ft). Blooming period: April - May | No | Not Expected | No appropriate habitat is present in the study area. |
| Otay tarplant (<i>Deinandra conjugens</i>) | FE, CE, CRPR 1B.1 MSCP SD NE | Annual herb. Clay soils in coastal sage scrub and valley and foothill grassland; 25-300 m (82-984 ft). Blooming period: May - June | No | Not Expected | No appropriate heavy clay soils are present in the study area. |
| Orcutt's bird's beak (<i>Dicranostegia orcuttiana</i>) | CRPR 2B.1 | Hemi-parasitic annual herb. Coastal scrub, seasonally dry drainages, uplands adjacent to riparian habitat; 10-350 m (32-1150 ft). Blooming period: March - September | No | Low | Marginally suitable habitat present the study area. Not observed during focused rare plant surveys. |
| Blochman's dudleya (<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>) | CRPR 1B.1 | Perennial herb. Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland; 5-450 m (16-1476 ft). Blooming period: April - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Short-leaved dudleya (<i>Dudleya brevifolia</i>) | CRPR 1B.1 MSCP SD NE | Perennial herb. Torrey sandstone in coastal scrub and openings in maritime chaparral; 30-250 m (100-820 ft). Blooming period: April - May | No | Not Expected | No appropriate habitat is present in the study area. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|---|---------------------------------------|-----------------------|---|
| Variegated dudleya (<i>Dudleya variegata</i>) | CRPR 1B.2 MSCP SD NE MSCP Santee | Openings in chaparral, cismontane woodland, and coastal sage scrub, isolated rocky substrates in open grasslands, and vernal pools 3-580m Blooming period: Apr-Jun | No | Not Expected | No appropriate habitat is present in the study area. Would not occur in the disturbed, revegetated coastal sage scrub present in the buffer area. |
| Sticky dudleya (<i>Dudleya viscida</i>) | CRPR 1B.2 MSCP SD | Perennial herb. Rocky soils in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub; 10-550 m (32-1804 ft). Blooming period: May - June | No | Not Expected | No appropriate habitat is present in the study area. Would not occur in the disturbed, revegetated coastal sage scrub present in the buffer area. |
| Palmer's goldenbush (<i>Ericameria palmeri</i> var. <i>palmeri</i>) | CRPR 1B.1 MSCP SD NE | Coastal drainages, in mesic chaparral sites, or rarely in coastal sage scrub. Below 600m (1969ft). Blooming period: Jul-Nov | No | Not Expected | No appropriate habitat is present in the study area. |
| San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>) | FE/CE CRPR 1B.1 MSCP SD MSCP Santee | Vernal Pools, coastal sage scrub, valley and foothill grassland in mesic soils. 20-620m Blooming period: Apr-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Sand-loving wallflower (<i>Erysimum ammodophilum</i>) | CRPR 1B.2 | Perennial herb. Sandy openings in maritime chaparral, coastal dunes, and coastal scrub; 0-60 m (0-196 ft). Blooming period: February - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Cliff spurge (<i>Euphorbia misera</i>) | CRPR 2B.2 | Perennial shrub. Rocky areas in coastal bluff scrub, coastal scrub, and Mojavean desert scrub; 10-500 m (32-1640 ft). Blooming period: December - October | No | Not Expected | No appropriate maritime succulent scrub habitat is present in the study area. |
| San Diego barrel cactus (<i>Ferocactus viridescens</i>) | CRPR 2B.1 MSCP SD MSCP Santee | Chaparral, coastal scrub, grasslands and vernal pools in sandy to rocky areas. 10-150m (33-492ft). Blooming period: May-Jun | No | Not Expected | Species is known from coastal sage scrub in the vicinity but is unlikely to occur in the roadside fill slope within the study area. |
| Palmer's Frankenia (<i>Frankenia palmeri</i>) | CRPR 2B.1 | Perennial herb. Coastal dunes, coastal salt marshes and swamps, playas; 0-10 m (0-32 ft). Blooming period: May - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Mexican flannelbush (<i>Fremontodendron mexicanum</i>) | FE, CR CRPR 1B.1 | Evergreen shrub. Gabbroic, metavolcanic, or serpentine soils in closed-cone coniferous forest, chaparral, and cismontane woodland; 10-716 m (32-2349 ft). Blooming period: March - June | No | Not Expected | No appropriate chaparral habitat is present in the study area. Outside of the known range of this species. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|------------------------------|--|---------------------------------------|-----------------------|--|
| Desert bedstraw (<i>Galium proliferum</i>) | CRPR 2B.2 | Annual herb. Rocky or limestone carbonate areas in Joshua tree woodland, Mojavean desert scrub, and Pinyon and Juniper woodland; 1190-1630 m (3903-5346 ft). Blooming period: March - June | No | Not Expected | No appropriate habitat is present in the study area. |
| Mission Canyon bluecup (<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>) | CRPR 3.1 | Annual herb. Mesic soils and disturbed areas within chaparral; 450-700 m (1476-2296 ft). Blooming period: April - June | No | Not Expected | No appropriate habitat is present in the study area. |
| San Diego gumplant (<i>Grindelia hallii</i>) | CRPR 1B.2 | Perennial herb. Meadows, chaparral, lower montane coniferous forest, and valley and foothill grassland; 185-1745 m (606-5723 ft). Blooming period: May - October | No | Not Expected | This is a montane species. No appropriate habitat present in the study area. |
| Palmer's grappling hook (<i>Harpagonella palmeri</i>) | CRPR 4.2 | Chaparral, coastal scrub, grasslands in clay soils 197-8924m (60 to 2720ft). Blooming period: Mar-May | No | Not Expected | No appropriate soils or habitat are present in the study area. |
| Tecate cypress (<i>Hesperocyparis forbesii</i>) | CRPR 1B.1 | Coniferous forests and chaparral in clay, gabbro, or meta-volcanic soils 80-1500m | No | Not Expected | No appropriate soils and chaparral habitat are present in the study area. |
| Beach goldenaster (<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>) | CRPR 1B.1 | Perennial herb. Coastal chaparral, coastal dunes, and coastal scrub; 0-1225 m (0-4018 ft). Blooming period: March - December | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Graceful tarplant (<i>Holocarpha virgata</i> ssp. <i>elongata</i>) | CRPR 4.2 | Annual herb. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; 60-1100 m (196-3600 ft). Blooming period: May - November | No | Low | Known from the vicinity. Little suitable habitat for this species in the study area. Not observed during focused rare plant surveys. |
| Ramona horkelia (<i>Horkelia truncata</i>) | CRPR 1B.3 | Open chamise chaparral between 400-1300m (1312-4265ft). Blooming period: May-Jun | No | Not Expected | Suitable habitat not present within the study area. |
| Decumbent goldenbush (<i>Isocoma menziesii</i> var. <i>decumbens</i>) | CRPR 1B.2 | Chaparral, coastal scrub often in sandy disturbed areas 10-135m Blooming period: Apr-Nov | No | Low | Little suitable habitat for this species in the study area. Not observed during focused rare plant surveys. |
| San Diego marsh-elder (<i>Iva hayesiana</i>) | CRPR 2B.2 | Marshes and swamps, playas, creeks or intermittent streambeds 10-500m Blooming period: Apr-Oct | Yes | Present | Observed within the San Diego River on the far side of the southern berm; species is present only in the 100-ft buffer from the project area. No individuals present onsite. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------|--|---------------------------------------|-----------------------|---|
| Southern California black walnut (<i>Juglans californica</i> var. <i>californica</i>) | CRPR 4.2 | Deciduous tree. Alluvial areas in chaparral, cismontane woodland, and coastal scrub; 50-900 m (164-2952 ft). Blooming period: March - August | Yes | Present | Several individuals were observed within riparian habitat along the southern boundary of the site, within the San Diego River, as well as areas within the golf course that will not be altered (avoidance areas). Many previously mapped occurrences of this species (HELIX 2017) are non-native pecan (<i>Carya illinoensis</i>). |
| Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>) | CRPR 4.2 | Perennial rhizomatous herb. Mesic soils in coastal dunes, alkaline seeps in meadows and seeps, and coastal salt marshes and swamps; 3-900 m (9-2953 ft). Blooming period: May - June | Yes | Present | Observed within the San Diego River in the 100-ft buffer from the project boundary and within avoidance areas within Sycamore Creek within the project boundary. |
| Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>) | CRPR 1B.1 | Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 1-1220 m (3-4001 ft). Blooming period: February - June | No | Not Expected | While this species is normally found in mesic sites, it is not associated with riverine floodplains. The soils of the site consist primarily of alluvium. No suitable clay soils or vernal pools for this species are present. |
| Heart-leaf pitcher sage (<i>Lepechinia cardiophylla</i>) | CRPR 1B.2 MSCP SD NE | Closed-cone coniferous forest, chaparral, cismontane woodland 520-1370m Blooming period: Apr-Jul | No | Not Expected | No appropriate habitat is present in the study area. |
| Gander's pitcher sage (<i>Lepechinia ganderi</i>) | CRPR 1B.3 MSCP SD | Perennial shrub. Gabbroic or metavolcanic soils in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland; 305-1005 m (1000-3296 ft). Blooming period: June - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>) | CRPR 4.3 | Openings in chaparral and sage scrub, generally well away from the coast in Southern California in the foothill elevations. Below 885m. Blooming period: Jan-Jul | No | Low | Marginally suitable habitat present in the study area. Not observed during focused rare plant surveys. |
| Sea dahlia (<i>Leptosyne maritima</i>) | CRPR 2B.2 | Perennial herb. Coastal bluff scrub and coastal scrub; 5-150 m (16-492 ft). Blooming period: March - May | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Felt-leaf monardella (<i>Monardella hypoleuca</i> var. <i>lanata</i>) | CRPR 1B.2 MSCP SD | Chamise chaparral understory. 300-1000m (984-3280 ft). Blooming period: Jun-Aug | No | Not Expected | No appropriate habitat is present in the study area. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|---|--|---|---------------------------------------|-----------------------|---|
| Willowy monardella (<i>Monardella viminea</i>) | FE, CE CRPR 1B.1 MSCP SD NE MSCP Santee | Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland, alluvial ephemeral washes, usually at sandy locales in seasonally dry washes 50-225m Blooming period: Jun-Aug | No | Low | Species is present upstream in Sycamore Creek, in ephemeral washes above Santee Lakes. Sycamore Creek within the study area does not have appropriate habitat or hydrology to support this species. Not observed during focused rare plant surveys. |
| Little mousetail (<i>Myosurus minimus</i> ssp. <i>apus</i>) | CRPR 3.1 | Vernal pools 20-640m Blooming period: Mar-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Mud nama (<i>Nama stenocarpum</i>) | CRPR 2B.2 | Annual/perennial herb. Marshes and swamps, also riverbanks and lake margins; 5-500 m (16- 1640 ft). Blooming period: January - July | No | Not Expected | No appropriate habitat is present in the study area. |
| Spreading navarretia (<i>Navarretia fossalis</i>) | FT CRPR 1B.1 MSCP SD NE | Chenopod scrub, marshes and swamps, vernal pools 30-655m Blooming period: Apr-Jun | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Prostrate vernal pool navarretia (<i>Navarretia prostrata</i>) | CRPR 1B.2 | Annual herb. Mesic coastal scrub, meadows and seeps, alkaline valley and foothill grassland, and vernal pools; 15-1210 m (49- 3968 ft). Blooming period: April - July | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Coast woolly-heads (<i>Nemacaulis denudata</i> var. <i>denuata</i>) | CRPR 1B.2 | Annual herb. Coastal dunes; 0-100 m (0-328 ft). Blooming period: April - September | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| Slender cottonheads (<i>Nemacaulis denudata</i> var. <i>gracilis</i>) | CRPR 2B.2 | Annual herb. Coastal dunes, desert dunes, and Sonoran desert scrub; -50 – 400 m (-164 – 1312 ft). Blooming period: March - May | No | Not Expected | This is a species of coastal beaches and dunes. No reasonable potential at this inland site. |
| California Orcutt grass (<i>Orcuttia californica</i>) | FE, CE CRPR 1B.1 MSCP SD NE | Annual herb. Vernal pools; 15-660 m (50-2165 ft). Blooming period: April - August | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Short-lobed broomrape (<i>Orobancha parishii</i> ssp. <i>brachyloba</i>) | CRPR 4.2 | Parasitic perennial herb. Sandy coastal bluff scrub, coastal dunes, and coastal scrub; 3-305 m (9-1000 ft). Blooming period: April - October | No | Not Expected | This is a species of coastal marshes. No reasonable potential at this inland site. |
| California adder's-tongue (<i>Ophioglossum californicum</i>) | CRPR 4.2 | Perennial rhizomatous herb. Mesic areas in chaparral, valley and foothill grasslands, and the margins of vernal pools; 60-525. Blooming period: December - Jun | No | Not Expected | Appropriate soils and habitat are not present within the study area. |
| Gander's ragwort (<i>Packera ganderi</i>) | CR CRPR 1B.2 MSCP SD | Openings in chaparral on metavolcanic, mafic or gabbro soils. 400-1200m Blooming period: Apr-Jun | No | Not Expected | Appropriate habitat and soils are not present in the study area. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (Scientific Name) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|---|---|---------------------------------------|-----------------------|--|
| Torrey pine (<i>Pinus torreyana</i> ssp. <i>torreyana</i>) | CRPR 1B.2 | Perennial evergreen tree. Sandstone in closed-cone coniferous forest and chaparral; 75-160 m (246-524 ft). | No | Not Expected | No appropriate habitat is present in the study area. |
| Golden-rayed pentacheata (<i>Pentacheata aurea</i> ssp. <i>aurea</i>) | CRPR 4.2 | Chaparral, cismontane woodland, coastal scrub, coniferous forest, riparian woodland, grasslands 80-1850m Blooming period: Mar-Jul | No | Low | Marginal suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| San Diego mesa mint (<i>Pogogyne abramsii</i>) | FE/CE CRPR 1B.1 MSCP SD NE MSCP Santee | Clay pan vernal pools in central San Diego County 90-200m Blooming period: Mar-June | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| Otay mesa mint (<i>Pogogyne nudiuscula</i>) | FE CRPR 1B.1 MSCP SD NE | Clay pan vernal pools in southern San Diego County 90-200m Blooming period: Mar-June | No | Not Expected | Required vernal pool habitat is not present in the study area. |
| White rabbit tobacco (<i>Pseudognaphalium leucocephalum</i>) | CRPR 2B.2 | Perennial herb. Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland; 0-2100 m (0-6888 ft). Blooming period: July - December | No | Low | Marginal suitable habitat is present in the study area. Not observed during focused rare plant surveys. |
| Cedros Island oak (<i>Quercus cedrosensis</i>) | CRPR 2B.2 | Evergreen tree. Closed-cone coniferous forest, chaparral, coastal scrub; 255-960 m (836-3148). Blooming period: April - May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Nuttall's scrub oak (<i>Quercus dumosa</i>) | CRPR 1B.1 | Coastal chaparral with a generally open canopy cover 15-400m Blooming period: Feb-Aug | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Munz's sage (<i>Salvia munzii</i>) | CRPR 2B.2 | Evergreen shrub. Chaparral and coastal sage scrub; 120-1065 m (393-3493 ft). Blooming period: February - April | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Ashy spike-moss (<i>Selaginella cinerascens</i>) | CRPR 4.1 | Perennial rhizomatous herb. Undisturbed chaparral and coastal sage scrub; 20-640 m (65-2100 ft). Rarely inhabits disturbed soils. | No | Not Expected | Diegan coastal sage scrub within the study area is primarily broom baccharis recruits on a road embankment. This species is not known to recruit onto this sort of disturbed location. Not observed during focused rare plant surveys. |
| Rayless ragwort (<i>Senecio aphanactis</i>) | CRPR 2B.2 | Coastal sage scrub, chaparral, cismontane woodland, alkaline flats 15-800m Blooming period: Jan-Apr | No | Low | Appropriate soils and habitat not present in the study area. |
| Blue streamwort (<i>Stemodia durantifolia</i>) | CRPR 2B.1 | Sonoran desert scrub, riparian woodland, often in mesic sandy soils 180-300m Blooming period: Jan-Dec | No | Low | Marginal habitat present within the study area. Not observed during rare plant surveys. |

Attachment 1. Sensitive Plant Species Potential to Occur

| Common Name (<i>Scientific Name</i>) | Sensitivity Code & Status | Habitat Preference/Requirements | Detected within the Study Area? | Potential to Occur | Rationale |
|--|------------------------------|---|---------------------------------------|-----------------------|---|
| Estuary seablite (<i>Suaeda esteroa</i>) | CRPR 1B.2 | Perennial herb. Coastal salt marshes and swamps; 0-5 m (0-16 ft). Blooming period: May - January | No | Not Expected | This is a species of coastal marshes. No reasonable potential at this inland site. |
| Parry's tetradleus (<i>Tetradleus dioicus</i>) | CRPR 1B.2 MSCP SD | Chamise chaparral and coastal scrub. Below 1000m (3280ft). Blooming period: Apr-May | No | Not Expected | No appropriate chaparral habitat is present in the study area. |
| Rush chaparral-star (<i>Xanthisma junceum</i>) | CRPR 4.3 | Slender perennial in chamise chaparral and Diegan sage scrub communities. Blooming period: July - January | No | Low | Not expected in the disturbed Diegan coastal sage scrub present in the buffer area. Not observed during rare plant surveys. |
| <p>Legend:</p> <p>Status:</p> <p>Federal FE - Listed as endangered under the federal Endangered Species Act. FT - Listed as threatened under the federal Endangered Species Act.</p> <p>California CE - Listed as endangered under the California Endangered Species Act. CT - Listed as threatened under California Endangered Species Act. CR - Listed as rare under Native Plant Protection Act (FGC Section 1900 et seq.).</p> <p>CA Rare Plant Rank (CRPR) – Formerly known as CNPS List 1B. Rare, Threatened, or Endangered in California and elsewhere 2B. Rare, Threatened, or Endangered in California, more common elsewhere 3. Plants for which we more information is needed - Review list 4. Plants of limited distribution - Watch list</p> <p>Threat Ranks .1 - Seriously endangered in California .2 – Fairly endangered in California .3 – Not very endangered in California</p> <p>San Diego Multiple Species Conservation Plan (MSCP) MSCP SD – Covered Species under the City of San Diego MSCP Subarea Plan MSCP SD NE – Listed as a Narrow Endemic species in the San Diego MSCP MSCP Santee– Proposed Covered Species under Santee MSCP Subarea Plan</p> <p>References: Special Status listing information from CDFW 2021. Nomenclature and plant descriptions from: CNPS Online Inventory, Calflora.org, Baldwin 2012, Lightner 2011, Reiser 2001. Range information from CNDDB 2019, CNPS 2019, and SDNHM Plant Atlas Project 2019.</p> | | | | | |

Attachment 2

Species Observed

Attachment 2. Animal Species Observed or Detected

| Scientific Name | Common Name | Special Status |
|-----------------------------------|------------------------------|----------------|
| VERTEBRATES | | |
| Fish | | |
| <i>*Lepomis macrochirus</i> | Bluegill | |
| Amphibians | | |
| <i>*Lithobates catesbeianus</i> | American Bullfrog | |
| <i>Pseudacris hypochondriaca</i> | Baja California Treefrog | |
| Reptiles | | |
| <i>Sceloporus occidentalis</i> | Western Fence Lizard | |
| <i>Uta stansburiana elegans</i> | Western Side-blotched Lizard | |
| Turtles | | |
| <i>*Trachemys scripta elegans</i> | Red-eared Slider | |
| Birds | | |
| <i>Anas platyrhynchos</i> | Mallard | |
| <i>Podilymbus podiceps</i> | Pied-billed Grebe | |
| <i>Phalacrocorax auritus</i> | Double-crested Cormorant | WL |
| <i>Ardea herodias</i> | Great Blue Heron | |
| <i>Egretta thula</i> | Snowy Egret | |
| <i>Butorides virescens</i> | Green Heron | |
| <i>Nycticorax nycticorax</i> | Black-crowned Night-Heron | |
| <i>Accipiter cooperii</i> | Cooper's Hawk | WL, MSCP |
| <i>Buteo lineatus</i> | Red-shouldered Hawk | |
| <i>Buteo jamaicensis</i> | Red-tailed Hawk | |
| <i>Fulica americana</i> | American Coot | |
| <i>*Columba livia</i> | Rock Pigeon | |
| <i>*Streptopelia decaocto</i> | Eurasian Collared-Dove | |
| <i>Zenaida macroura</i> | Mourning Dove | |
| <i>Aeronautes saxatalis</i> | White-throated Swift | |
| <i>Archilochus alexandri</i> | Black-chinned Hummingbird | |
| <i>Calypte anna</i> | Anna's Hummingbird | |
| <i>Selasphorus sp.</i> | Selasphorus hummingbird | |
| <i>Melanerpes formicivorus</i> | Acorn Woodpecker | |
| <i>Picoides nuttallii</i> | Nuttall's Woodpecker | |
| <i>Picoides pubescens</i> | Downy Woodpecker | |

| Scientific Name | Common Name | Special Status |
|-----------------------------------|-------------------------------|----------------|
| <i>*Amazona viridigenalis</i> | Red-crowned Parrot | |
| <i>Empidonax difficilis</i> | Pacific-slope Flycatcher | |
| <i>Sayornis nigricans</i> | Black Phoebe | |
| <i>Sayornis saya</i> | Say's Phoebe | |
| <i>Myiarchus cinerascens</i> | Ash-throated Flycatcher | |
| <i>Tyrannus vociferans</i> | Cassin's Kingbird | |
| <i>Tyrannus verticalis</i> | Western Kingbird | |
| <i>Vireo bellii pusillus</i> | Least Bell's Vireo | FE, SE, MSCP |
| <i>Vireo huttoni</i> | Hutton's Vireo | |
| <i>Aphelocoma californica</i> | California Scrub-Jay | |
| <i>Corvus brachyrhynchos</i> | American Crow | |
| <i>Corvus corax</i> | Common Raven | |
| <i>Tachycineta bicolor</i> | Tree Swallow | |
| <i>Stelgidopteryx serripennis</i> | Northern Rough-winged Swallow | |
| <i>Petrochelidon pyrrhonota</i> | Cliff Swallow | |
| <i>Psaltiriparus minimus</i> | Bushtit | |
| <i>Sitta carolinensis</i> | White-breasted Nuthatch | |
| <i>Troglodytes aedon</i> | House Wren | |
| <i>Thryomanes bewickii</i> | Bewick's Wren | |
| <i>Chamaea fasciata</i> | Wrentit | |
| <i>Sialia mexicana</i> | Western Bluebird | MSCP |
| <i>Turdus migratorius</i> | American Robin | |
| <i>Mimus polyglottos</i> | Northern Mockingbird | |
| <i>*Sturnus vulgaris</i> | European Starling | |
| <i>Mniotilta varia</i> | Black-and-white Warbler | |
| <i>Oreothypis celata</i> | Orange-crowned Warbler | |
| <i>Geothlypis trichas</i> | Common Yellowthroat | |
| <i>Setophaga petechia</i> | Yellow Warbler | SSC |
| <i>Icteria virens</i> | Yellow-breasted Chat | SSC |
| <i>Pipilo maculatus</i> | Spotted Towhee | |
| <i>Melospiza crissalis</i> | California Towhee | |
| <i>Melospiza melodia</i> | Song Sparrow | |
| <i>Zonotrichia leucophrys</i> | White-crowned Sparrow | |

| Scientific Name | Common Name | Special Status |
|----------------------------------|----------------------------|----------------|
| <i>Piranga ludoviciana</i> | Western Tanager | |
| <i>Pheucticus melanocephalus</i> | Black-headed Grosbeak | |
| <i>Agelaius phoeniceus</i> | Red-winged Blackbird | |
| <i>Quiscalus mexicanus</i> | Great-tailed Grackle | |
| * <i>Molothrus ater</i> | Brown-headed Cowbird | |
| <i>Icterus cucullatus</i> | Hooded Oriole | |
| <i>Haemorhous mexicanus</i> | House Finch | |
| <i>Spinus psaltria</i> | Lesser Goldfinch | |
| * <i>Passer domesticus</i> | House Sparrow | |
| * <i>Lonchura punctulata</i> | Nutmeg Mannikin | |
| Mammals | | |
| <i>Sylvilagus audubonii</i> | Desert Cottontail | |
| <i>Ostospermophilus beecheyi</i> | California Ground Squirrel | |
| <i>Thomomys bottae</i> | Botta's Pocket Gopher | |
| <i>Canis latrans</i> | Coyote | |
| <i>Procyon lotor</i> | Northern Raccoon | |
| <i>Odocoileus hemionus</i> | Southern Mule Deer | MSCP |

Legend

*= Non-native or invasive species

Special Status:

Federal:

FE = Endangered

FT = Threatened

State:

SE = Endangered

ST =Threatened

SSC= California Species of Special Concern

CFP = California Fully Protected Species

Attachment 2. Plant Species Observed

| Scientific Name | Common Name | Special Status |
|---|-------------------------|----------------|
| GYMNOSPERMS | | |
| Pinaceae - Pine family | | |
| <i>Pinus pinea</i> | Italian stone pine | |
| MAGNOLIIDS | | |
| Saururaceae - Lizard's-tail family | | |
| <i>Anemopsis californica</i> | Yerba mansa | |
| EUDICOTS | | |
| Adoxaceae - Muskroot family | | |
| <i>Sambucus nigra ssp. caerulea</i> | Blue elderberry | |
| Aizoaceae - Fig-marigold family | | |
| * <i>Carpobrotus edulis</i> | Hottentot fig | |
| * <i>Mesembryanthemum nodiflorum</i> | Slender-leaved iceplant | |
| Amaranthaceae - Amaranth family | | |
| * <i>Amaranthus albus</i> | White tumbleweed | |
| Anacardiaceae - Sumac Or Cashew family | | |
| <i>Rhus integrifolia</i> | Lemonade berry | |
| * <i>Schinus molle</i> | Peruvian pepper tree | |
| * <i>Schinus terebinthifolius</i> | Brazilian pepper tree | |
| <i>Toxicodendron diversilobum</i> | Western poison oak | |
| Apiaceae - Carrot family | | |
| * <i>Apium graveolens</i> | Celery | |
| * <i>Conium maculatum</i> | Poison hemlock | |
| * <i>Foeniculum vulgare</i> | Fennel | |
| Apocynaceae - Dogbane family | | |
| * <i>Nerium oleander</i> | Oleander | |
| Asteraceae - Sunflower family | | |
| <i>Ambrosia psilostachya</i> | Western ragweed | |
| <i>Artemisia californica</i> | California sagebrush | |
| <i>Artemisia douglasiana</i> | Mugwort | |
| <i>Artemisia palmeri</i> | Palmer's sagewort | CRPR 4.2 |
| <i>Baccharis pilularis ssp. pilularis</i> | Coyote brush | |
| <i>Baccharis salicifolia ssp. salicifolia</i> | Mule fat | |
| <i>Baccharis sarothroides</i> | Broom baccharis | |
| * <i>Carduus pycnocephalus ssp. pycnocephalus</i> | Italian thistle | |

| Scientific Name | Common Name | Special Status |
|---|----------------------------|----------------|
| * <i>Centaurea melitensis</i> | Tocalote | |
| * <i>Cirsium vulgare</i> | Bull thistle | |
| * <i>Cotula coronopifolia</i> | Brass-buttons | |
| * <i>Dimorphotheca ecklonis</i> | Blue & white Cape marigold | |
| <i>Encelia californica</i> | California encelia | |
| * <i>Erigeron bonariensis</i> | Flax-leaved horseweed | |
| <i>Erigeron canadensis</i> | Horseweed | |
| * <i>Helminthotheca echioides</i> | Bristly ox-tongue | |
| <i>Heterotheca grandiflora</i> | Telegraph weed | |
| <i>Iva hayesiana</i> | San Diego marsh-elder | CRPR 2B.2 |
| * <i>Lactuca serriola</i> | Prickly lettuce | |
| <i>Laennecia coulteri</i> | Coulter's horseweed | |
| <i>Pectis papposa</i> var. <i>papposa</i> | Chinch-weed | |
| * <i>Sonchus asper</i> ssp. <i>asper</i> | Prickly sow thistle | |
| * <i>Sonchus oleraceus</i> | Common sow thistle | |
| <i>Xanthium strumarium</i> | Cocklebur | |
| Boraginaceae - Borage family | | |
| <i>Heliotropium curassavicum</i> var. <i>oculatum</i> | Alkali heliotrope | |
| Brassicaceae - Mustard family | | |
| * <i>Brassica nigra</i> | Black mustard | |
| * <i>Hirschfeldia incana</i> | Shortpod mustard | |
| * <i>Lepidium latifolium</i> | Perennial pepper-grass | |
| * <i>Raphanus sativus</i> | Radish | |
| <i>Rorippa palustris</i> | Bog yellow cress | |
| * <i>Sisymbrium altissimum</i> | Tumble mustard | |
| * <i>Sisymbrium orientale</i> | Indian hedgemustard | |
| Cactaceae - Cactus family | | |
| * <i>Opuntia ficus-indica</i> | Mission prickly pear | |
| <i>Opuntia oricola</i> | Chaparral prickly pear | |
| Caprifoliaceae - Honeysuckle family | | |
| * <i>Lonicera japonica</i> | Japanese honeysuckle | |
| Caryophyllaceae - Pink family | | |
| * <i>Spergularia bocconi</i> | Boccone's sand-spurrey | |
| * <i>Spergularia rubra</i> | Red sand-spurrey | |

| Scientific Name | Common Name | Special Status |
|--|----------------------------------|----------------|
| Chenopodiaceae - Goosefoot family | | |
| * <i>Chenopodium album</i> | Lamb's quarters | |
| * <i>Chenopodium murale</i> | Nettleleaf goosefoot | |
| * <i>Salsola tragus</i> | Russian thistle | |
| Convolvulaceae - Morning-glory family | | |
| <i>Cressa truxillensis</i> | Alkali weed | |
| Cucurbitaceae - Gourd family | | |
| <i>Cucurbita foetidissima</i> | Calabazilla | |
| Euphorbiaceae - Spurge family | | |
| <i>Croton californicus</i> | California croton | |
| * <i>Euphorbia maculata</i> | Spotted spurge | |
| * <i>Euphorbia peplus</i> | Petty spurge | |
| * <i>Ricinus communis</i> | Castorbean | |
| Fabaceae - Legume family | | |
| * <i>Acacia cyclops</i> | Western coastal wattle | |
| <i>Acmispon americanus var. americanus</i> | Spanish-Clover | |
| * <i>Melilotus albus</i> | White sweetclover | |
| * <i>Melilotus indicus</i> | Indian sweetclover | |
| Fagaceae - Oak family | | |
| <i>Quercus agrifolia</i> | Coast live oak | |
| Juglandaceae - Walnut family | | |
| * <i>Carya illinoensis</i> | Pecan | |
| <i>Juglans californica</i> | Southern California black walnut | CRPR 4.2 |
| Lamiaceae - Mint family | | |
| * <i>Lamium amplexicaule</i> | Henbit | |
| * <i>Marrubium vulgare</i> | Horehound | |
| Malvaceae - Mallow family | | |
| <i>Malacothamnus fasciculatus</i> | Chaparral bush-mallow | |
| <i>Malvella leprosa</i> | Alkali mallow | |
| Moraceae - Mulberry family | | |
| * <i>Ficus carica</i> | Edible fig | |
| * <i>Morus alba</i> | White mulberry | |
| Myrtaceae - Myrtle family | | |
| * <i>Eucalyptus cladocalyx</i> | Sugar gum | |
| * <i>Eucalyptus globulus</i> | Blue gum | |
| * <i>Eucalyptus sideroxylon</i> | Red River gum | |

| Scientific Name | Common Name | Special Status |
|--|----------------------------|----------------|
| * <i>Eucalyptus sp.</i> | Gum | |
| Nyctaginaceae - Four O'clock family | | |
| <i>Bougainvillea sp.</i> | Bougainvillea | |
| Oleaceae - Olive family | | |
| * <i>Fraxinus udehi</i> | Shamel Ash | |
| * <i>Olea europaea</i> | Olive | |
| Onagraceae - Evening Primrose family | | |
| <i>Camissoniopsis sp.</i> | Suncup | |
| <i>Epilobium ciliatum</i> | Fringed willowherb | |
| * <i>Ludwigia peploides</i> | Floating water primrose | |
| <i>Oenothera elata ssp. hookeri</i> | Hooker's evening primrose | |
| * <i>Oenothera speciosa</i> | Beautiful evening primrose | |
| Phrymaceae - Lopseed family | | |
| <i>Mimulus guttatus</i> | Seep monkeyflower | |
| Plantaginaceae - Plantain family | | |
| * <i>Plantago major</i> | Common plantain | |
| Platanaceae - Plane Tree, Sycamore family | | |
| <i>Platanus racemosa</i> | Western sycamore | |
| Polygonaceae - Buckwheat family | | |
| <i>Eriogonum fasciculatum</i> | California buckwheat | |
| <i>Persicaria amphibia</i> | Water smartweed | |
| * <i>Polygonum aviculare</i> | Oval Leaf knotweed | |
| * <i>Rumex crispus</i> | Curly dock | |
| Rosaceae - Rose family | | |
| <i>Heteromeles arbutifolia</i> | Toyon | |
| <i>Rosa californica</i> | California rose | |
| <i>Rubus ursinus</i> | California blackberry | |
| Rubiaceae - Madder family | | |
| <i>Galium aparine</i> | Common bedstraw | |
| Salicaceae - Willow family | | |
| <i>Populus fremontii ssp. fremontii</i> | Fremont cottonwood | |
| <i>Salix exigua var. hindsiana</i> | Sand bar willow | |
| <i>Salix gooddingii</i> | Goodding's black willow | |
| <i>Salix laevigata</i> | Red willow | |
| <i>Salix lasiolepis</i> | Arroyo willow | |

| Scientific Name | Common Name | Special Status |
|--|-------------------------|----------------|
| Sapindaceae - Soapberry family | | |
| <i>Acer negundo</i> | Box elder | |
| Simaroubaceae - Quassia Or Simarouba family | | |
| * <i>Ailanthus altissima</i> | Tree of heaven | |
| Solanaceae - Nightshade family | | |
| <i>Datura wrightii</i> | Wright's jimsonweed | |
| * <i>Nicotiana glauca</i> | Tree tobacco | |
| Tamaricaceae - Tamarisk family | | |
| * <i>Tamarix ramosissima</i> | Tamarix | |
| Tropaeolaceae - Nasturtium family | | |
| * <i>Tropaeolum majus</i> | Garden nasturtium | |
| Verbenaceae - Vervain family | | |
| <i>Phyla nodiflora</i> | Turkey tangle frogfruit | |
| Vitaceae - Grape family | | |
| <i>Vitis girdiana</i> | Desert wild grape | |
| MONOCOTS | | |
| Agavaceae - Century Plant family | | |
| * <i>Agave americana</i> | American century plant | |
| * <i>Yucca gloriosa</i> | Garden yucca | |
| Arecaceae - Palm family | | |
| * <i>Phoenix canariensis</i> | Canary Island palm | |
| * <i>Washingtonia robusta</i> | Mexican fan palm | |
| Cyperaceae - Sedge family | | |
| <i>Carex praegracilis</i> | Slender sedge | |
| <i>Cyperus eragrostis</i> | Tall flatsedge | |
| <i>Schoenoplectus americanus</i> | American bulrush | |
| <i>Schoenoplectus californicus</i> | California bulrush | |
| Juncaceae - Rush family | | |
| <i>Juncus acutus ssp. leopoldii</i> | Southwestern spiny rush | CRPR 4.2 |
| <i>Juncus mexicanus</i> | Mexican rush | |
| Poaceae - Grass family | | |
| * <i>Arundo donax</i> | Giant reed | |
| * <i>Avena barbata</i> | Slender wild oat | |
| * <i>Avena fatua</i> | Wild oat | |
| <i>Bromus carinatus</i> | California brome | |
| * <i>Bromus diandrus</i> | Ripgut brome | |

| Scientific Name | Common Name | Special Status |
|---------------------------------------|-------------------------|----------------|
| * <i>Bromus hordeaceus</i> | Soft brome | |
| * <i>Bromus rubens</i> | Red brome | |
| * <i>Cortaderia sp.</i> | Pampas grass | |
| * <i>Cynodon dactylon</i> | Bermuda grass | |
| * <i>Festuca myuros</i> | Rattail fescue | |
| * <i>Festuca perennis</i> | Rye grass | |
| * <i>Hordeum murinum ssp. glaucum</i> | Smooth barley | |
| * <i>Lamarckia aurea</i> | Goldentop grass | |
| * <i>Paspalum dilatatum</i> | Dallis grass | |
| * <i>Pennisetum setaceum</i> | African fountain grass | |
| * <i>Polypogon monspeliensis</i> | Rabbitsfoot beard grass | |
| * <i>Stipa miliacea var. miliacea</i> | Smilo grass | |
| Typhaceae - Cattail family | | |
| <i>Typha latifolia</i> | Broad-leaved cattail | |

Legend

*= Non-native or invasive species

Special Status:

CRPR – California Rare Plant Rank

2B. Rare or Endangered in California, more common elsewhere

4. Plants of limited distribution - Watch list

Threat Ranks

.1 - Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

Appendix L

2021 Fuel Management Clearing Letter Report



Memorandum

To: Lennar Homes
From: Brad Haley, Senior Biologist, ICF
Date: November 22, 2022
Re: Carlton Oaks Country Club and Resort – Vegetation Clearing Assessment

This memo has been prepared to summarize the results of the ICF field visit conducted on December 21, 2021, to document vegetation clearing conducted by the City of Santee in an area located south of Calle Del Verde.

In December 2021, a contractor working on behalf of the City of Santee conducted fuel management clearing at the northeast corner of the Carlton Oaks Country Club and Resort project site (project site), in the vicinity of the northeast emergency exit to Calle del Verde. This fuel modification removed non-native trees on the slope of the adjacent condominium complex and also resulted in approximately 0.08 acre of tree removal within the project site. The fuel modification removed dozens of non-native trees such as Mexican fan palms (*Washingtonia robusta*), and damaged or removed five native trees (four within the project site) which were interspersed with the non-native trees which were removed.

ICF senior botanist Shawn Johnston conducted an inspection of the clearing area on December 21, 2021, mapping the limits of disturbance with a sub-meter accuracy GPS unit. Mr. Johnston conducted a forensic assessment of the fuel management area and recorded the location and species of each removed or damaged tree.

Figure 1 (see attached) shows the limits of vegetation clearing, separated into two polygons based on the vegetation which was present prior to vegetation clearing. The red dots on Figure 1 represent non-native trees that were removed and the green dots represent native trees that were damaged or removed. The northern-most polygon of the two (with gray background) was classified as “Developed/Ornamental vegetation community” because of its location on a manufactured slope associated with the condominium complex and near exclusive coverage by invasive, ornamental tree species prior to clearing. The total size of developed polygon is 0.101 acre, of which 0.045 acre is within the project site. The trees in this polygon were primarily non-native trees, with the exception of one Goodding’s willow (*Salix gooddingii*) outside of the project footprint that was removed completely and another Goodding’s willow that was significantly trimmed (Table 1).

The southernmost polygon of the two (with green background) is 0.036 acre and was classified as “Southern Cottonwood-Willow Riparian Forest” because of its physical location adjacent to a waterway and being surrounded by willow trees (*Salix* spp.), mule fat (*Baccharis salicifolia*), and other species which typify this vegetation community (Figure 1). The trees in this polygon were also generally non-native trees, however several native trees (willow and oak) appeared to have been damaged. Table 1 provides a summary for each tree species removed or damaged, per area.

Table 1. Summary of Removed or Damaged Trees

| Common Name | Scientific Name | Native/ Non-Native | Count | Notes |
|---|-----------------------------|-----------------------|-------|---|
| Developed/Ornamental (Northern Area) | | | | |
| Mexican fan palm | <i>Washingtonia robusta</i> | Non-native | 48 | Invasive trees fully removed |
| Gum tree | <i>Eucalyptus</i> sp. | Non-native | 1 | Invasive tree fully removed |
| Goodding's willow | <i>Salix gooddingii</i> | Native | 2 | Tree 1: Severe damage: 2 of 3 trunks removed (DBH* 6" and 8") and lateral branches trimmed Tree 2†: Tree removed (DBH 12") |
| Stone pine | <i>Pinus pinea</i> | Non-native | 1 | Invasive tree fully removed |
| Peruvian pepper tree | <i>Schinus molle</i> | Non-native | 1 | Multiple trunks of 1 tree (DBH 7", 7", 16", 5") all removed |
| Southern Cottonwood-Willow Riparian Forest (Southern Area) | | | | |
| Mexican fan palm | <i>Washingtonia robusta</i> | Non-native | 5 | Invasive trees fully removed |
| Goodding's willow | <i>Salix gooddingii</i> | Native | 2 | Tree 1: Severe trunk damage (DBH 12") Tree 2: Damage to tree (DBH 11") |
| Coast live oak | <i>Quercus agrifolia</i> | Native | 1 | Damage to lateral branches of oak tree; tree not removed (DBH 10") |

*DBH: Estimated diameter at breast height (inches) were taken for each tree recorded.

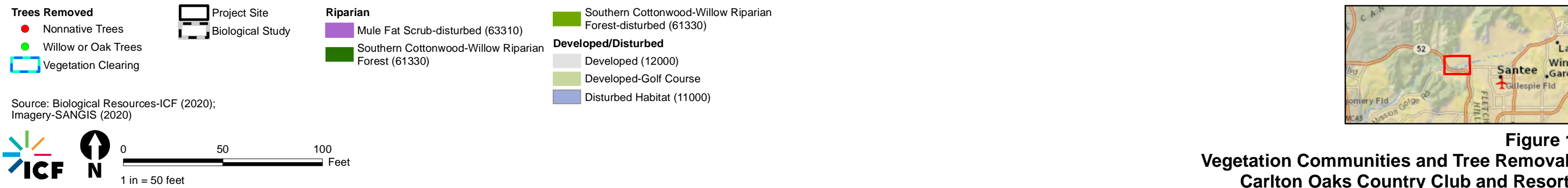
† = Native tree outside of project site

For the native trees that were damaged, the damage varied from missing trunks of large multi-trunk willows to broken-off lateral branches of an oak. None of the trees were showing any major detrimental effects from the damages in December 2021; however, the damages do offer points of entry for disease and decay that may affect the long-term health and vigor of the trees or possible their decline or death. Because of the limited size of this disturbance area and existing surrounding riparian habitat elements and potential for riparian regrowth, no changes are recommended to the original vegetation mapping layers.

Attachment:

Figure 1 – Vegetation Communities and Tree Removal

\\PDC\ITRDS\GIS\2\Projects_3\Lennar\CarltonOaks_Residential\Figures\Misc\Vegetation_TreeRemoval.mxd; User: 19542; Date: 11/17/2022



Appendix M

2024 Crotch's Bumblebee Survey Report



October 3, 2024

David Shepard
Lennar Communities

Subject: 2024 Crotch's Bumble Bee Survey Report for the Carlton Oaks Country Club and Resort Project, Cities of Santee and San Diego, California.

This report documents the results of the presence/absence surveys for Crotch's bumble bee (*Bombus crotchii*; CBB) conducted by ICF in 2024 for the proposed Carlton Oaks Country Club and Resort project within the cities of Santee and San Diego, California (Project).

Project Location and Description

The project site is located at 9200 Inwood Drive, which is on the south side of Carlton Oaks Drive and the east side of West Hills Parkway, within the municipal boundary of both the City of Santee and City of San Diego, in San Diego County, California (Figure 1). The proposed project is adjacent to State Route 52 (SR-52) and Carlton Oaks Drive.

Lennar Corporation and Carlton Oaks Golf Course, as joint project proponents, are proposing to redevelop the existing Carlton Oaks Country Club into a golf course resort with residential accessory uses (proposed project). The proposed project would include a redesign of the existing Carlton Oaks golf course which will include the following land uses on approximately 165 acres: residential accessory uses consisting of two residential neighborhoods with open space areas; a hotel and associated cottages; an improved golf course clubhouse and pro shop, golf course and practice area, and learning center structure.

The project site is currently developed as the Carlton Oaks Golf Course. The surrounding area is generally developed with residential and commercial development to the north and east of the project site, as well as to the south on the other side of SR-52 (Figure 2). The area to the west of the project site includes open space associated with Mission Trails Regional Park. The San Diego River flows westerly along the southern boundary of the project site, providing a narrow band of riparian open space immediately east of the site, and along the southern boundary of the site. (Figure 2).

CBB Background

CBB are social insects that live in colonies composed of a queen, workers and reproductive castes (males and new queens). Colonies turn over on an annual basis, with only the mated queens (gynes) overwintering and establishing the new colonies the following year. New queens typically emerge in February or March to establish a new colony or nest, and nests are typically established in the ground within abandoned rodent burrows or other soil cavities (Hatfield *et al.* 2015). Queens initially do all the foraging for the new colony until the first workers (also females) emerge and begin to take over the foraging duties. Males and gynes become active later in the summer. Once males leave the nest in search of mates, they no longer directly associate with the colony and will forage for nectar to sustain themselves through their active period. Gynes will also forage late in the season to fatten up for overwinter hibernation.

CBB is a short-tongued, generalist pollinator and has been observed foraging on plants from a wide array of plant families and a wide range of flowering species, including perennial shrubs and annual herbaceous species, regardless of habitat type. CBB have exhibited preference for various food plants including *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014).

CBB historically ranged from northern California near the Oregon border down to northern Baja California, primarily occupying shrublands and grasslands (Hatfield et al. 2015). On October 16, 2018, the Xerces Society for Invertebrate Conservation (Xerces) filed a petition with the California Fish and Game Commission to list CBB, along with four other native bumble bee species, as endangered under the California Endangered Species Act (Xerces et al. 2018). The 2018 petition considered multiple factors that have likely contributed to the range-wide decline of CBB. Habitat loss, a primary driver of this decline, is a significant threat to the survival of CBB and many other species of pollinators. Rapid urban development, widespread agriculture, and the use of herbicides have led to habitat destruction and fragmentation that has narrowed the range of suitable habitat for CBB. As suitable habitat with pollen and nectar sources becomes scarce, the highly abundant non-native European honeybee (*Apis mellifera*) continues to compete with CBB and other *Bombus* species within their native range. Additionally, European honeybees may pass on pathogens to native CBB populations (Parveen et al. 2022). As is the case for many declining species, there is no one identifiable cause for the decline of CBB, but many synergistic factors that have impacted this once abundant species.

Habitat Description and CBB Survey Area

The Project boundary and associated 100-foot buffer (i.e., the Study Area) totals approximately 212 acres and consists of developed areas, disturbed habitat, ornamental plantings and some native vegetation communities (Figure 2). Much of this area was excluded from the CBB survey, as it does not provide suitable habitat in which to potentially find foraging CBB. Excluded areas included the maintained golf course turf, open water areas, developed and paved areas (consisting primarily of associated golf course infrastructure, adjacent residential housing and roadways), and riparian habitat with dense relative cover. Remaining surveyable habitat included mostly small and narrow edge and perimeter areas that supported ruderal and disturbed habitat. These areas were dominated by white sweetclover (*Melilotus albus*), jimson weed (*Datura wrightii*), horseweed (*Erigeron canadensis*), cocklebur (*Xanthium strumarium*), short-pod mustard (*Hirschfeldia incana*), evening primrose (*Oenothera elata*), and bristly ox-tongue (*Helminthotheca echioides*).

Additional habitat suitable for CBB surveys included small patches of disturbed coastal sage scrub present in the western portion of the Study Area. These areas support stands of California buckwheat (*Eriogonum fasciculatum*) and broom baccharis (*Baccharis sarothroides*), with occasional California sagebrush (*Artemisia californica*), California encelia (*Encelia californica*), goldenbush (*Isocoma menziesii*) and black sage (*Salvia mellifera*).

In addition to the areas noted above, ornamental plantings within the landscaped developed areas that featured species in bloom attractive to foraging bumblebees were also surveyed, as feasible. These included plantings of lantana (*Lantana camara*), rosemary (*Salvia rosmarinus*), Mexican bush sage (*Salvia leucantha*), pepper trees (*Schinus* spp.), citrus trees, and other cultivars.

As an aid for the surveyors to reference over the course of the surveys, polygons of suitable survey areas and point locations of blooming nectar/pollen sources were mapped in ArcGIS online. These areas are provided on Figure 2. The total acreage of the suitable survey area polygons (i.e., Survey Area) within the Study Area is approximately 14.7 acres, but this does not include the numerous interstitial edge habitat areas and point locations of nectar/pollen sources that were also surveyed. Inclusive of these areas, total acreage of the Survey Area is estimated to be approximately 15 acres.

Methods

The presence/absence focused surveys for CBB with the Survey Area were conducted by ICF biologists Brian Lohstroh and Antonette Gutierrez according to the schedule provided below in Table 1. Four CBB-focused survey visits for were conducted for the Project in August 2024. Although the survey visits did occur during the colony active period for CBB (April through August), which is determined to provide the highest detection probability, the survey schedule did not strictly adhere to the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (California Department of Fish and Wildlife [CDFW] 2023). The Survey Considerations recommend that three on-site surveys take place, ideally spaced 2-4 weeks apart to span a range of dates and account for variability in resource use and floral resource phenology. Due to Project-related schedule constraints, the four surveys were spaced seven, ten, and four days apart between August 9 and August 30, 2024 (Table 1). A fourth survey visit was added to provide a wider range of dates and help compensate for the lack of strict adherence to the 2023 Survey Considerations.

Table 1. Survey Dates and Conditions

| Survey | Date | Time | Temperature (°F) | Cloud Cover | Wind (MPH) | Personnel |
|------------------------------|---------|-----------|------------------|-------------|------------|------------------------------|
| Habitat Assessment/ CBB 1 | 8/9/24 | 0700-1430 | 66-86 | 50-0% | 0-3; 4-8 | B. Lohstroh |
| CBB 2 | 8/16/24 | 0730-1400 | 66-88 | 50-15% | 0-2; 6-9 | B. Lohstroh, A. Gutierrez |
| CBB 3 | 8/26/24 | 0730-1330 | 63-86 | 0% | 0-1; 3-9 | B. Lohstroh, A. Gutierrez |
| CBB 4 | 8/30/24 | 0745-1330 | 65-80 | 70-0% | 0-2; 3-8 | B. Lohstroh, A. Gutierrez |

The surveys were conducted passively, using visual and photographic identification of foraging bumblebees. The surveyors also used 8 x 42 or similar power binoculars to assist with visual identification. No bumblebee captures were made during the surveys. Passive surveys for CBB have been shown to be effective in southern California because trained, experienced biologists can readily differentiate CBB from the other potentially occurring *Bombus* species in the field live (often with the aid of binoculars) or by studying photographs of observed, uncaptured bumblebees (AECOM 2023a, AECOM 2023b). Both Mr. Lohstroh and Ms. Gutierrez have over 20 years of experience performing focused surveys for other flying insects, such as Quino checkerspot butterfly (*Euphydryas editha quino*), for which they hold current U.S. Fish and Wildlife Service permits. The surveyors also attended a CBB-focused training in 2023 and passed an associated CBB identification test (AECOM 2023a, AECOM 2023b). In addition, they have surveyed for the species at numerous sites with positive CBB identification in 2023 and 2024.

Results and Discussion

No CBB were observed during the CBB-focused surveys in 2024. Only one species of *Bombus* was observed within the Survey Area: the yellow-faced bumblebee (*Bombus vosnesenkii*). Individuals of this species were observed foraging on white sweetclover (*Melilotus albus*), bull thistle (*Cirsium vulgare*), and ornamental rosemary (*Salvia rosmarinus*) within relatively small areas between the edge of the golf course and excluded areas like dense riparian habitat. Table 2 summarizes the survey results. Lists of species detected and potential nectar sources are attached.

Table 2. Survey Results

| Survey | Date | Approximate Survey Rate (Acres/hr) | Species Observed | No. of Observations |
|------------------------------|---------|------------------------------------|---------------------------|---------------------|
| Habitat Assessment/ CBB 1 | 8/9/24 | 2.00 | <i>Bombus vosnesenkii</i> | 4 |
| CBB 2 | 8/16/24 | 1.15 | <i>Bombus vosnesenkii</i> | 1 |
| CBB 3 | 8/26/24 | 1.25 | <i>Bombus vosnesenkii</i> | 2 |
| CBB 3 | 8/30/24 | 1.30 | <i>Bombus vosnesenkii</i> | 9 |

In general terms, the Study Area does not provide substantial or significant habitat for CBB nesting or foraging. Nearly the entire Study Area is manipulated by anthropogenic activities, and it lacks areas of intact native scrubland or grassland habitat. Routine golf course maintenance activities such as mowing and watering likely preclude nesting and there is limited foraging and nesting habitat along the periphery of the developed areas. In addition, much of the Carlton Oaks Golf Course is situated within or immediately adjacent to the historic floodplain for the San Diego River, and inundation during winter stormwater flows is a hazard for a ground-nesting species.

Please do not hesitate to contact Mr. Lohstroh at (858) 750-9300 with any questions.

Sincerely,

Brian Lohstroh
Senior Biologist

Attachments

- 1 Figures
- 2 Representative Photos
- 3 List of Species Detected (Bees, Wasps and Similar)
- 4 List of Potential Nectar Sources Observed

Figures

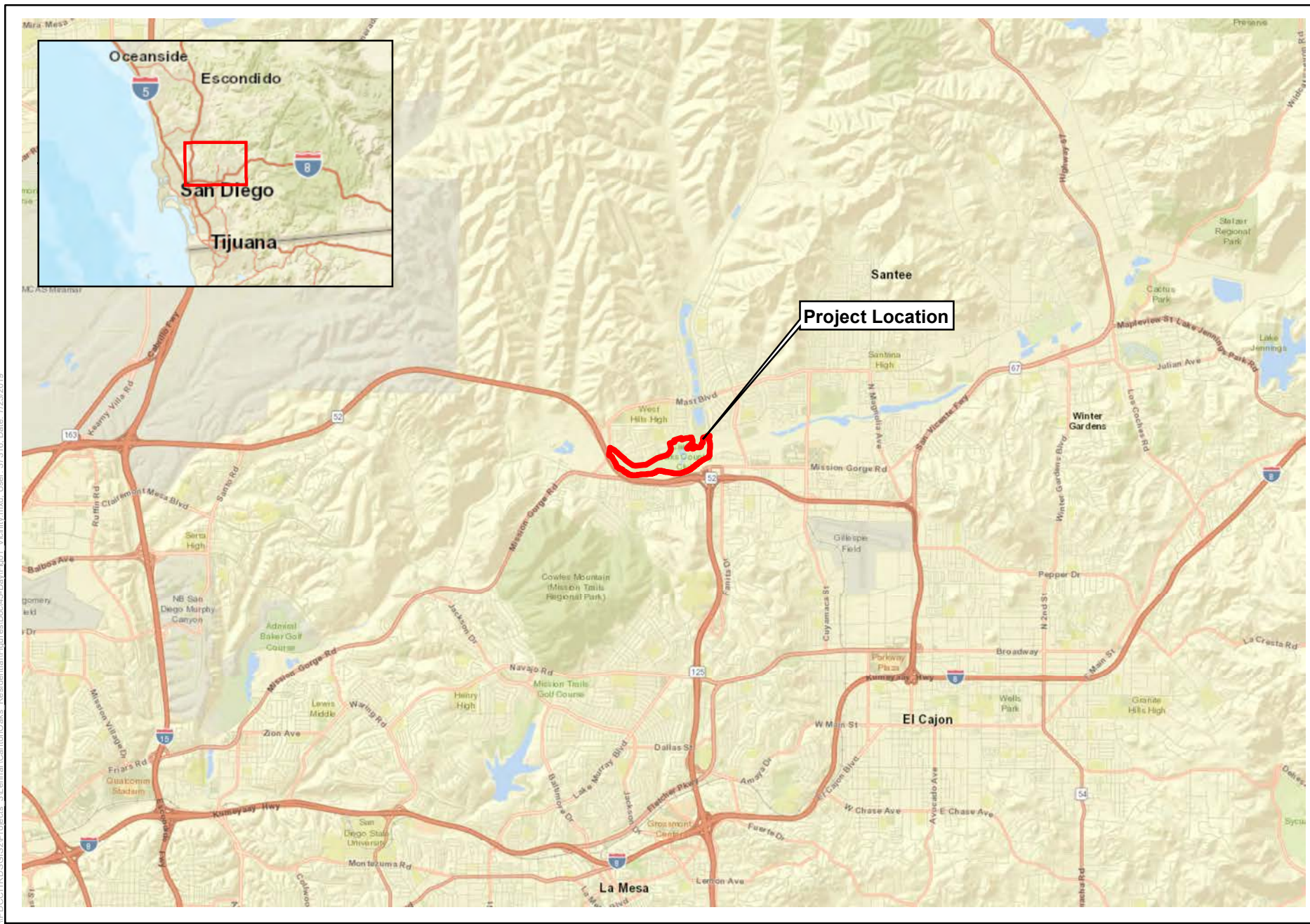
- 1 Regional Location Map
- 2 2024 Crotch Bumblebee Survey Results

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- AECOM, 2023a. 2023 State Route 67 Highway Improvements Project Crotch's Bumble Bee Summary Report, San Diego County, California. Nov. 8.
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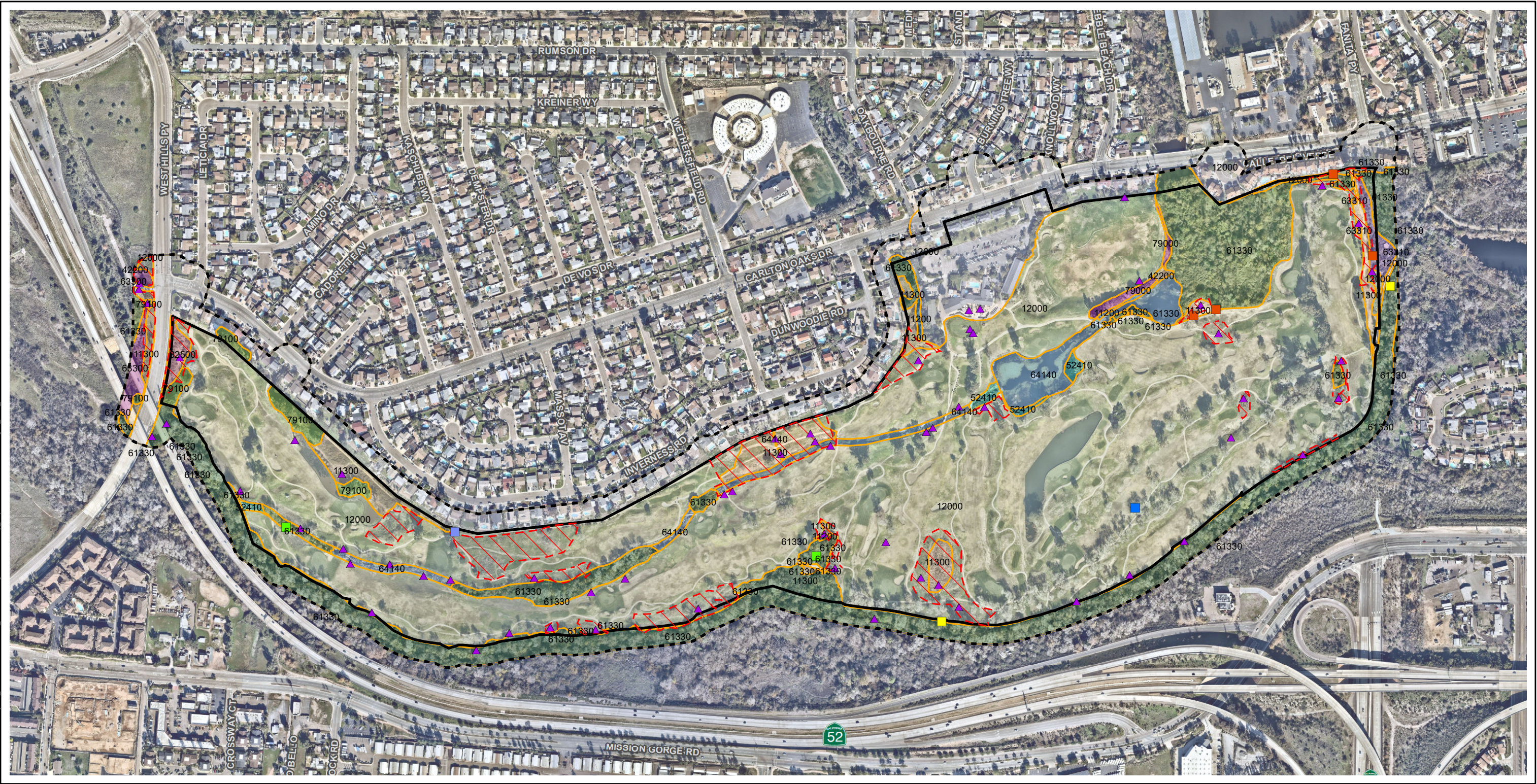
Attachment 1 Figures



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Figure 1
Regional Location
Carlton Oaks Project

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- Project Boundary
- Biological Study Area
- CBB Nectar Source
- Suitable CBB Survey Area

- Other Sensitive Species Observed**
- Cooper's hawk
 - Monarch
 - Vermillion flycatcher
 - least Bell's vireo
 - yellow warbler

- Vegetation Classification (Holland Code)**
- Riparian**
- Mule Fat Scrub-disturbed (63310)
 - Non-Native Riparian (65000)
 - Southern Cottonwood-Willow Riparian Forest (61330)
 - Southern Cottonwood-Willow Riparian Forest-disturbed (61330)
 - Southern Riparian Scrub (63320)

- Wetlands**
- Coastal and Valley Freshwater Marsh (52410)
 - Disturbed Wetland (11200)
 - Fresh Water (64140)
- Upland**
- Diegan Coastal Sage Scrub- disturbed (32500)
 - Non-Native Grassland (42200)

- Non-Native Woodland (79000)
- Developed/Disturbed**
- Developed (12000)
 - Developed-Golf Course
 - Disturbed Habitat (11000)
 - Eucalyptus Woodland (79100)

Source: Biological Resources-ICF (2024); Imagery-SANGIS (2020)

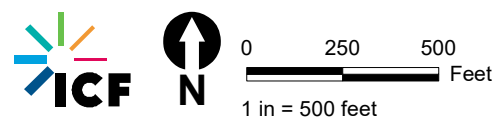


Figure 2
2024 Crotch Bumblebee Survey Results
Carlton Oaks Country Club and Resort



Attachment 2 Representative Photos



Photo 1. (8/9/24) View facing south at unmaintained berm near maintenance yard in eastern portion of Study Area. White sweetclover is visible blooming in foreground and at center.



Photo 2. (8/9/24) View facing southwest along unmaintained berm separating the golf course from the San Diego River in the eastern portion of the Study Area. Jimson weed is visible blooming in this area, with dense riparian habitat visible at left.



Photo 3. (8/9/24) View facing north from near the southern boundary, in central portion of Study Area. Area supports sparse ruderal habitat with horseweed and seaside heliotrope.



Photo 4. (8/26/24) View facing southeast near the northwestern boundary of the Study Area. Coast buckwheat is visible in bloom in the foreground.



Photo 5. (8/26/24) Yellow-faced bumblebee worker foraging on bull thistle in central portion of Study Area.

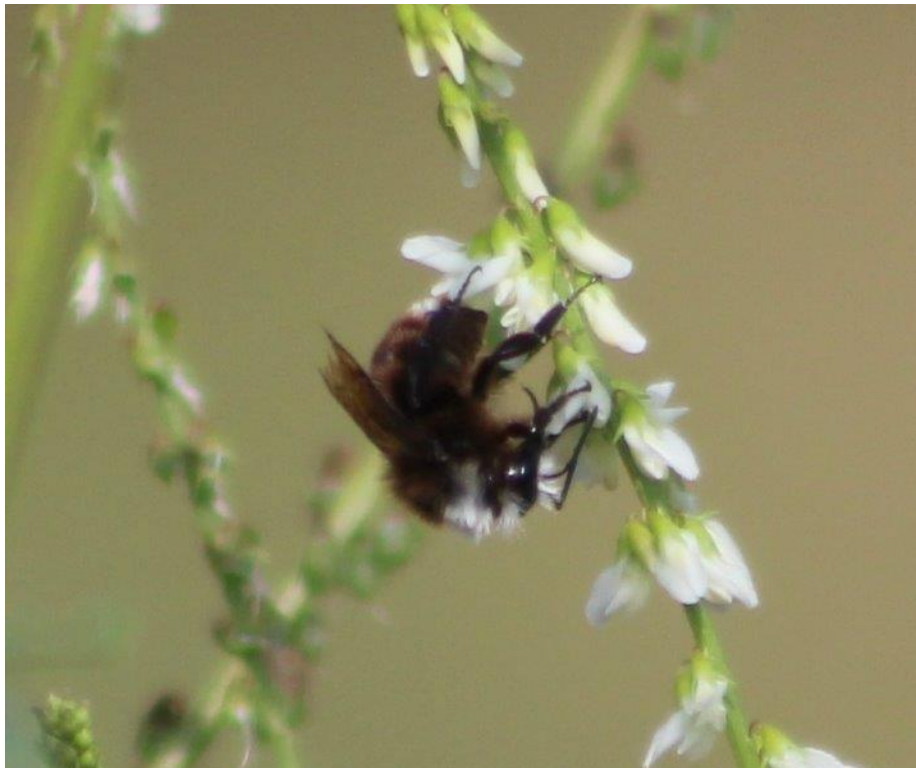


Photo 6. (8/30/24) Yellow-faced bumblebee male foraging on white sweetclover in the eastern portion of the Study Area. This individual has an unusual white coloration instead of the typical yellow.



Attachment 3 List of Species Detected (Bees, Wasps, and Similar)

| Common Name | Scientific Name | Family |
|-----------------------------|--------------------------------|--------------|
| European Honey bee | <i>Apis mellifera</i> | Apidae |
| Yellow-faced bumblebee | <i>Bombus vosnesenkii</i> | Apidae |
| Carpenter bee | <i>Xylocopa californica</i> | Apidae |
| Green sweat bee | <i>Agapostemon</i> sp. | Augochlora |
| Ligated furrow bee | <i>Halictus ligatus</i> | Halictidae |
| Tarantula hawk | <i>Pepsis chrysothemis</i> | Pompilidae |
| Spider wasp | -- | Pompilidae |
| Figeater beetle | <i>Cotinis mutabilis</i> | Scarabaeidae |
| Scoliid wasp | -- | Scoliidae |
| Thread-waisted wasp | <i>Ammophila aberti</i> | Sphecidae |
| Black and yellow mud dauber | <i>Sceliphron caementarium</i> | Sphecidae |
| Mexican cactus fly | <i>Copestylum mexicanum</i> | Syrphidae |
| Drone fly | <i>Eristalis tenax</i> | Syrphidae |
| Golden plushback | <i>Palpada mexicana</i> | Syrphidae |
| Hoverfly | -- | Syrphidae |
| Golden paper wasp | <i>Polistes aurifer</i> | Vespidae |
| Western yellowjacket | <i>Vespula pensylvanica</i> | Vespidae |



Attachment 4 List of Potential Nectar Sources Observed

| Family | Scientific Name | Common Name | Status |
|-----------------|----------------------------------|--------------------------------|---------------------|
| ANACARDIACEAE | <i>Schinus terebinthifolia</i> | Brazilian pepper tree | invasive non-native |
| APIACEAE | <i>Foeniculum vulgare</i> | Fennel | invasive non-native |
| APOCYNACEAE | <i>Nerium oleander</i> | Oleander | non-native |
| ASTERACEAE | <i>Ambrosia psilostachya</i> | Ragweed | native |
| | <i>Artemisia douglasiana</i> | California mugwort | native |
| | <i>Baccharis salicifolia</i> | Mule fat | native |
| | <i>Cirsium vulgare</i> | Bull thistle | invasive non-native |
| | <i>Erigeron bonariensis</i> | Flax-leaved horseweed | non-native |
| | <i>Erigeron canadensis</i> | Canada horseweed | native |
| | <i>Helminthotheca echioides</i> | Bristly ox-tongue | invasive non-native |
| | <i>Heterotheca grandiflora</i> | Telegraph weed | native |
| | <i>Isocoma menziesii</i> | Goldenbush | native |
| | <i>Lactuca serriola</i> | Prickly lettuce | non-native |
| | <i>Pluchea odorata</i> | Salt marsh fleabane | native |
| | <i>Xanthium strumarium</i> | Cocklebur | native |
| BRASSICACEAE | <i>Hirschfeldia incana</i> | Short-pod mustard | invasive non-native |
| | <i>Lepidium latifolium</i> | Perennial pepperweed | invasive non-native |
| | <i>Raphanus sativus</i> | Jointed charlock | invasive non-native |
| CACTACEAE | <i>Opuntia vaseyi</i> | Vasey's prickly pear | native |
| CONVOLVULACEAE | <i>Cuscuta californica</i> | Short flowered dodder | native |
| CUCURBITACEAE | <i>Cucurbita foetidissima</i> | Missouri gourd | native |
| EUPHORBIACEAE | <i>Ricinus communis</i> | Castor bean | invasive non-native |
| FABACEAE | <i>Melilotus albus</i> | White sweetclover | non-native |
| | <i>Senna artemisioides</i> | Silver senna | non-native |
| | <i>Trifolium fragiferum</i> | Strawberry clover | non-native |
| HELIOTROPIACEAE | <i>Heliotropium curassavicum</i> | Seaside heliotrope | native |
| LAMIACEAE | <i>Salvia leucantha</i> | Mexican bush sage | non-native |
| | <i>Salvia rosmarinus</i> | Rosemary | non-native |
| ONAGRACEAE | <i>Camissoniopsis hirtella</i> | Hairy sun cup | native |
| | <i>Ludwigia grandiflora</i> | Large-flowered primrose-willow | invasive non-native |
| | <i>Oenothera elata</i> | Evening primrose | native |
| PHRYMACEAE | <i>Diplacus aurantiacus</i> | Sticky monkeyflower | native |
| PLUMBAGINACEAE | <i>Limonium duriusculum</i> | European sea lavender | invasive non-native |
| POLYGONACEAE | <i>Eriogonum fasciculatum</i> | California buckwheat | native |
| ROSACEAE | <i>Heteromeles arbutifolia</i> | Toyon | native |
| SAURURACEAE | <i>Anemopsis californica</i> | Yerba mansa | native |
| SOLANACEAE | <i>Datura wrightii</i> | Jimsonweed | native |
| | <i>Solanum americanum</i> | White nightshade | native |
| VERBENACEAE | <i>Lantana camara</i> | Lantana | non-native |
| ZYGOPHYLLACEAE | <i>Tribulus terrestris</i> | Puncture vine | invasive non-native |

Appendix N

2024 Driving Range Grading Memo



Memorandum

To: City of Santee
From: Dale Ritenour, Senior Biologist, ICF
Date: October 16, 2024
Re: Carlton Oaks Country Club and Resort – Driving Range Berm

This memo summarizes ICF's assessment of potential biological impacts resulting from the deposition of soils used to create a new berm on the outside edge Carlton Oaks Golf Course driving range, as well as describe the subsequent removal of soils with respect to adjacent biological resources.

Background

To the east of the existing clubhouse at Carlton Oaks Golf Course is a driving range. Current activity at this location includes maintenance and ball catching activity. The driving range is vegetated with lawn grass; no native vegetation exists within the driving range. Beginning in 2023, native soil extracted from a tunnel being bored under the golf course was transported to the existing driving range using a small dump truck. Approximately 1,000 cubic yards were moved during a year-long period. This equates to approximately one to three vehicle trips per workday.

A small bulldozer was used to spread the soil and create a berm along the outer edge of the driving range, adjacent to Sycamore Canyon Creek, to aid in golf ball retention. A 6-8 foot-tall chain link fence exists along the edge of the driving range, separating it from the vegetation adjacent to Sycamore Canyon Creek. This work was also inadvertently conducted without a grading permit. The un-permitted soil and berm will be removed and the soil will be transported offsite prior to the end of October 2024. The site will be returned back to the existing contours prior to the soil deposition.

On July 5, 2024, ICF senior restoration ecologist Alexandra Fowler conducted a site visit to review the new berm and assess any potential biological issues. Ms. Fowler documented the existing conditions onsite with photographs.

Potential Effects

Construction of the berm with a small dozer did not affect sensitive vegetation communities, did not appear to result in sedimentation into the riparian area, and is very unlikely to have had significant noise effects on adjacent least Bell's vireo during the nesting season. These conclusions are discussed below.

The driving range is a developed active restoration site with no native vegetation, so there would be no direct habitat impacts associated with the deposition of soil. Based on the site visit, it was determined that the new soil was used exclusively for the creation of the berm. The existing silt fencing appeared to be properly installed along almost the entire length of the chain link fencing behind the berm that separates it from the adjacent riparian area. However, one section of the

fencing with dense, exotic Brazilian pepper trees (*Schinus terebinthifolia*) did not appear to have any silt fencing. Silt fencing is a primary and appropriate Best Management Practice for controlling the movement of sediment. The berm did not show signs of erosion on either side and no soil was visible beyond the silt fencing, indicating its effectiveness.

Soil was placed exclusively within the existing driving range. No native vegetation or ornamental perennial vegetation occurred within the driving range, so no clearing or grubbing occurred (Santee Municipal Code defines "Grubbing" as the removal of roots and stumps). No direct clearing or indirect soil sedimentation occurred within sensitive vegetation communities

The federally endangered least Bell's vireo were observed in the adjacent riparian area during surveys last conducted in 2022, including in the narrow strip between the driving range and Sycamore Canyon Creek. The riparian area should be considered occupied by least Bell's vireo during the breeding season from March 15 through September 15.

No noise monitoring was implemented during berm creation; however, the location at the golf course upon which the berm was created, consists of an existing golf driving range that utilizes noise producing machinery and the additional activity resulting from the creation of the berm is not expected to have significantly increased in the noise in the area, as discussed below.

The existing driving range utilizes lawn mowers and ball catching machines (Utility Terrain Vehicles [UTVs] with ball catching attachments). During the creation of the berm, additional noise would have resulted from the small bulldozer. However, conversely, while the berm was being created, the lawn mower and ball catching machine would not have been operated in the area being filled, resulting in removal of those other noise producing factors (with the lawn mower being the most significant generator of noise).

With no more than one to three trips per day, the dump truck would not have been a significant noise producing factor.

Soil Removal

The deposited soils will be removed from the site prior to the end of October 2024. Soil removal will take approximately two days, with up to 15 trucks taking three loads per day each. Soil would be removed at the site using a 966 loader and Caterpillar D6 bulldozer. Dust would be suppressed using a golf course water sources. Staging would occur within the golf course. The receiver site is a Lennar project site (Creekside) located just north of Robertson Street and west of Day Street in the unincorporated town of Ramona. Soil removal will only be removed from the recently deposited berm.

Soil removal will occur outside of the bird breeding season (March 15 through September 15) to avoid any future potential noise impacts on least Bell's vireo. With all activities taking place while least Bell's vireo are on wintering grounds and not present in San Diego County, there will be no effects from soil removal activities on least Bell's vireo. While no raptor nests are known within Carlton Oaks golf course or near to the driving range, the soil removal would occur prior February 1, which is the beginning of the raptor nesting season, avoiding potential impacts on nesting raptor.