APPENDIX F
Terrestrial Biological Assessment Report

M&A #20-059-06

ORANGE COUNTY SAND COMPATIBILITY AND OPPORTUNISTIC USE PROGRAM TERRESTRIAL BIOLOGICAL RESOURCES ASSESSMENT REPORT

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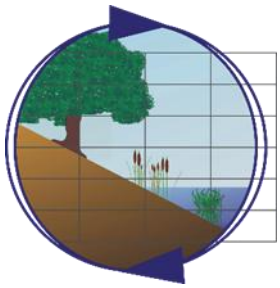

TABLE OF CONTENTS

LIST OF TABLES

TABLE OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

Merkel & Associates, Inc (M&A) has prepared this terrestrial biological assessment report for the Orange County Sand Compatibility and Opportunistic Use Program (OC SCOUP), that once implemented, will use clean sediment from various sources located within and/or in close proximity of Orange County for beach nourishment purposes. The OC SCOUP plans to utilize upland stockpile sites for storing beach quality source material.

The purpose of this assessment is to catalog terrestrial biological resources at each potential stockpile site, including an evaluation of habitats and associated terrestrial biological resources, as well as potential sensitive species including federal and state threatened and endangered species under the Endangered Species Act (ESA) and the California ESA (CESA), Special Plants and Animals under the California Natural Diversity Database (CNDDB; including the California Rare Plant Ranking [CRPR]), and California Department of Fish and Wildlife (CDFW) species of special concern. This report also assesses the potential project impacts and mitigation that may result from the utilization of these stockpile locations.

1.2 PROJECT LOCATION

The potential stockpile sites were chosen based on current site-specific conditions and proximity to coastal Orange County beaches that may benefit from the OC SCOUP beach replenishment. The nine proposed stockpile sites are located throughout Orange County, California, from Huntington Beach, the northern most location, to San Clemente in the south (Figure 1). Listed from north to south the proposed stockpile sites are named and numbered, as follows:

- CO2/CO4 Confluence (Bolsa Chica and Edinger)
- Gothard Street
- DO3 D/S California at E01 Bike Trail
- North Star
- Audubon Basin I02B01
- Hermosa/La Pata
- Avenida Pico/El Camino Road; and
- North Beach Stockpile Site

1.3 PROJECT DESCRIPTION

The OC SCOUP is designed to obtain beach-quality sand as surplus material from upland sources and to streamline the approval process for implementing beach fill projects.

While the sediment removal will be addressed by existing authorizations on a per-project basis, there are limited to no authorizations which allow for this sediment to be placed on local beaches (Moffatt and Nichol, 2023). The proposed OC SCOUP will obtain regulatory approvals in advance to allow for beach nourishment projects to occur as sediment source opportunities arise, eliminating the need for individual permits for each project and avoid maintenance sediment (and presumably sediment managed by other government entities) being disposed of in upland areas due to lack of a streamlined process for timely approval of beach nourishment. Once implemented, this program will allow beach fills to occur based on a pre-approved set of criteria that each opportunistic project would be required to meet, such as chemical

characteristics of the source sand, grain size compatibility with the receiving site beach sand, color, debris content, placement location, and/or biological monitoring.

This report will consider potential terrestrial stockpile sites for storing opportunistic sediment to be placed on beaches during the appropriate times, and potential avoidance or mitigation measures that may be required at each specific location related to this stockpile storage.

Figure 1-1. Vicinity Map

2.0 METHODS

2.1 LITERATURE AND DATA REVIEW

Prior to field surveys, the following available resources were reviewed to assist in determining potential biological resources for each of the potential stockpile sites. This review included examination of aerial photography for the Project site (Google Earth Pro, ESRI 2023); soil types (USDA-NRCA 2007); California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and U.S. Fish and Wildlife Service (USFWS) special status species records for the Project vicinity (CNDDB 2024, USFWS 2024a); federally designated critical habitat (USFWS 2024b); as well as National Wetland Index data on jurisdictional habitats and waters (USFWS-NWI 2022).

2.2 RECONNAISSANCE-LEVEL FIELD SURVEYS

Following the literature review and desktop assessment, M&A biologist Gina M. Krantz completed a series of reconnaissance-level field surveys which included walking the sites or scanning from the perimeter with binoculars, depending on the size of the site and accessibility (Table 2-1). Table 2-2 gives the approximate center coordinates, as well as the nearest cross streets for each site.

Table 2-1. Survey Date(s), Time(s), Conditions

Survey Site(s) #	Survey Type	Date	Time	Conditions (Start to End) [1]	Biologist(s)
1 through 4	Reconnaissance-level Field Survey	2024 30 Oct	1050-1545	Weather: 10%-0% cc Wind: 0-2 mph Temperature: 66-84° F	Gina M. Krantz
5 through 8	Reconnaissance-level Field Survey	2024 5 Nov	1100-1530	Weather: 25%-20% cc Wind: 2-6 mph Temperature: 71-64° F	Gina M. Krantz

[1]cc refers to cloud cover; mph refers to miles per hour; °F refers to degrees Fahrenheit

Table 2-2. Survey Site Locations

Survey Sites	Latitude	Longitude	Nearest Cross Streets
1. CO2/CO4 Confluence (Bolsa Chica and Edinger)	33°43'50.6"N	118°02'32.0"W	Bolsa Chica Street and Edinger Avenue
2. Gothard Street	33°41'53.5"N	118°00'10.6"W	Gothard Street and Talbert Avenue
3. DO3 D/S California at E01 Bike Trail	33°41'27.3"N	117°56'11.3"W	California Street and Alaska Avenue
4. North Star	33°37'28.7"N	117°53'39.4"W	White Cliffs Drive and North Star Lane
5. Audubon Basin I02B01	33°35'21.4"N	117°45'04.9"W	El Toro Road and California State Route 73
6. Hermosa/La Pata	33°27'47.0"N	117°36'16.9"W	Avenida Vista Hermosa and Avenida La Pata

Survey Sites	Latitude	Longitude	Nearest Cross Streets
7. Avenida Pico/El Camino Road	33°26'05.5"N	117°37'46.2"W	East Avenida Pico and West Avenida Vista Hermosa
8. North Beach Stockpile Site	33°25'56.9"N	117°37'56.8"W	East Avenida Pico and North El Camino Real,

Abbreviations: N refers to North, E refers to East; W refers to West.

Existing vegetation types were delineated onto a color aerial photograph of the study area. The vegetation types were classified according to the Manual of California Vegetation (MCV) classification system (Sawyer et al. 2009), as well as updates included in MCV Online (CNPS 2024b). In the case that a site could not be classified using the MCV system, another appropriate habitat classification system such as Holland (1986) code classification system as modified by Oberbauer et al. (2008) was applied. A list of detectable flora and fauna species was recorded in a field notebook. Plant identifications were either resolved in the field or later determined through verification of voucher specimens, and wildlife species were determined through direct observation (aided by binoculars), identification of songs, call notes and alarm calls, or by detection of sign (e.g., burrows, tracks, scat, etc.). In addition, each site was assessed for the potential of the queried list of sensitive species to occur onsite, and any other potential occurrences were assessed in the field based on the existing biological conditions. Photographs of each site were taken to record the biological resources present, and data collected from the survey were digitized into current Geographical Information System (GIS) Environmental Systems Research Institute (ESRI) software platforms.

2.2.1 SCIENTIFIC NOMENCLATURE

The scientific and common names utilized for the floral and faunal resources were noted according to the following scientific nomenclature: flora, Calflora (2018); amphibians and reptiles, Crother (2017); birds, American Ornithologists' Union (1998 and 2024); and mammals, (species level) Wilson and Reeder (2005), as updated by Mammal Diversity Database (2023) and Hall (1981) for subspecies.

2.2.2 GENERAL SURVEY LIMITATIONS

Biological inventories are generally subject to various survey limitations. Depending on the season and time of day during which field surveys are conducted, some species may not be detected due to temporal species variability. The biological surveys conducted for this project were performed during daylight hours in fall; thus, some breeding wildlife species, nocturnal wildlife species, and/or annual plant species may not have been detected. Based on the literature review performed, as well as knowledge of species-specific habitat requirements, it is anticipated that any additional species potentially present on the project site can be fairly accurately predicted and that the surveys conducted were sufficient in obtaining a thorough review of the terrestrial biological resources potentially present within each of the nine sites.

2.2.3 APPLICABLE REGULATIONS

The following federal, state, and regional or local plans and regulations have been considered and are applicable to this report:

2.2.3.1 Federal

Endangered Species Act

The Endangered Species Act of 1973 (ESA) protects plants and wildlife that are listed as endangered or threatened by USFWS. Section 9 of the ESA prohibits "take" of endangered wildlife, where "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). The term "harm" is defined as an "act which actually kills or injures wildlife," including through "significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." The term "harass" means an act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding or sheltering (50 CFR 17.3). For flora, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land, as well as removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law. Under Section 7 of the ESA, lead federal agencies are required to consult with the USFWS if the lead agency determines that its actions may adversely affect an endangered species (including flora) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. In cases where the federal agency determines its action may affect, but would be unlikely to adversely affect, a federally listed species, the agency may choose to informally consult with the USFWS. Concurrence from the USFWS concludes the informal process.

Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (MBTA) of 1918, it is unlawful, except as permitted by the USFWS, to "take, possess, transport, sell, purchase, barter, import, or export all species of birds protected by the MBTA, as well as their feathers, parts, nests, or eggs. Take means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect (50 CFR 10.12)." It is important to note that "take" as defined under the federal MBTA is not synonymous with "take" as defined under the federal ESA. The MBTA definition of "take" lacks a "harm and harassment" clause comparable to "take" under the ESA as described above; thus, the MBTA authority does not extend to activities beyond the nests, eggs, feathers, or specific bird parts (i.e., activities or habitat modification in the vicinity of nesting birds that do not result in "take" as defined under the MBTA are not prohibited).

2.2.3.1 State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) of 1970 requires state, local, and other agencies to evaluate the environmental implications of their decisions and to avoid or reduce, when feasible, the significant environmental impacts of their decisions (California Public Resource Code [PRC] Section 21000 et seq.; Guidelines Section 15000 et seq.). When avoiding or minimizing environmental damage is not feasible, CEQA requires agencies to prepare a written statement of overriding considerations when they decide to approve a project that will cause one or more significant impacts on the environment (PRC Section 21002; Guidelines Section. 15021(a)). Under the direction of CEQA, the California Resources Agency has adopted regulations referred to as state CEQA Guidelines, which provide detailed procedures that agencies must follow to implement the law.

California Endangered Species Act

The California Endangered Species Act (CESA) authorizes the California Fish and Game Commission to designate endangered, threatened, and rare species and to regulate the taking of these species (California Fish and Game Code [FGC] Sections 2050–2098). The CESA defines endangered species as those whose continued existence in California is jeopardized. State-listed threatened species are those not presently facing extinction, but that may become endangered in the foreseeable future. FGC Section 2080 prohibits the taking of state-listed plants and animals. Unlike the federal ESA, the CESA does not include harassment within its take definition and as such, has a statutorily higher threshold standard for take than does the federal ESA. Pursuant to Section 2081 of the code, the CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by the CDFW. The CDFW makes this determination based on available scientific information and considers the ability of the species to survive and reproduce. When a species is both state- and federally-listed, an expedited request for consistency with the USFWS biological opinion may be issued through a request for Section 2080.1 consistency determination, if take authorization under the CESA is required.

California Fish and Game Code

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit the "take, possession, or destruction of bird nests or eggs." Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3513 states: "It is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

2.2.3.2 Regional/Local

Orange County Natural Communities Conservation Plan/Habitat Conservation Plan

The Orange County Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), approved in 1996, encompasses a total area of approximately 208,000 acres split into the Coastal and Central subregions, with approximately 37,000 acres preserved in a Reserve System containing special linkages, existing use areas, and other designated open space areas. The goal of the NCCP/HCP is to protect and preserve coastal sage scrub in the Reserve System, as well as associated habitats and species, including three Target Species, thirty-six Identified Species, and four habitat types. The NCCP/HCP includes long-term monitoring requirements for populations of the Target Species, specifying these taxa be treated as if they were listed under CESA and ESA. The proposed project stockpile sites are spread between five cities within Orange County: Huntington Beach, Costa Mesa, Newport Beach, Aliso Viejo, and San Clemente. Apart from Costa Mesa, the four remaining cities are signatories of the Orange County NCCP/HCP and are a part of the existing Reserve.

City General Plans

The eight potential stockpile sites are spread between five cities within Orange County: Huntington Beach, Costa Mesa, Newport Beach, Aliso Viejo, and San Clemente. Each one has a general plan that guides future development and conservation within the respective city. The Costa Mesa General Plan (2015) contains a

separate Open Space and Recreation Element, similar to the NCCP/HCP Reserve System, that maps lands to be preserved within the city.

3.0 SURVEY RESULTS

3.1 LAND USE AND PHYSICAL CHARACTERISTICS

All potential stockpile sites are found within Orange County, California, in both coastal and inland areas. While most of these locations are in highly urbanized areas, the Audubon Basin (Site 5) is adjacent to a relatively large section of natural habitat, still surrounded by development. A brief description of the land use and physical characteristics for each individual potential stockpile site are found below.

1. CO2/CO4 Confluence (Bolsa Chica and Edinger)

The 4.46-acre potential stockpile site is broken into two areas adjacent to each other: a long and narrow area along a slightly elevated access road consisting of dirt and gravel as well as a triangular open and flat area currently being used for equipment storage also comprised of dirt and gravel. This location is adjacent to a school and residential development to the south, and a cement lined tidally influenced open water channel supporting narrow strips of salt marsh habitat to the north. This location is within the Coastal Zone. Soils are mapped as Bolsa silty clay loam, drained, and Bolsa clay loam, drained. Access to the site is from Edinger Road.

2. Gothard Street

The 0.93-acre potential stockpile site is an existing temporary storage area comprised of dirt and bare ground with uncovered soil stockpiles. This location is surrounded by a relatively small patch of disturbed Diegan Coastal Sage Scrub habitat and dirt trails adjacent to Huntington Beach Sports Complex surrounded by the greater Huntington Beach area. Sulley Miller Lake/Lake Ranc is approximately 220 feet south of this location. This site is located outside of the Coastal Zone. Soils are mapped as xeralfic arrents, loamy, 2 to 9 percent slopes. Access to the site is from Gothard Street.

3. DO3 D/S California at E01 Bike Trail

The 0.15-acre potential stockpile site is a relatively small lot comprised of dirt and asphalt. This location is adjacent to the Santa Ana River Trail and Greenville Banning Channel confluence with the fully concrete lined portion of Santa Ana River, with minor trail landscaping of vegetated berms to the northwest, and Greenville-Banning Channel, a concrete-lined drainage in close proximity to the southeast. Residential development is found to the northeast and further southeast. This site is located outside of the Coastal Zone as well. Soils are mapped as Metz loamy sand, moderate fine substratum. Access to the site is from the Santa Ana River trail from Gisler Avenue.

4. North Star

The 2.57-acre potential stockpile site is a mostly unvegetated dirt parcel that is actively used as parking lot for North Star Beach. This location is adjacent to the Newport Aquatic Center to the north and North Star Beach to the east, which is found within Newport Harbor, north of the Coast Highway bridge. This site is located within the Coastal Zone. Soils are mapped as beaches. Access to the site is from White Cliffs Drive.

5. Audubon Basin I02B01

The 0.99-acre potential stockpile site is an enclosed Orange County Public Works (OCPW) gravel lot with some exposed dirt near the external fencing. This location is part of an existing developed OCPW basin that supports wetland vegetation surrounded by the California State Route 73 and residential development to the north, open space within Laguna Canyon and Laguna Coast Wilderness Park to the

south and west, and additional residential development further to the east. This site is within the Coastal Zone. Soils are mapped as Soper gravelly loam, 30 to 50 percent slopes, Capistrano sandy loam 2 to 9 percent slopes, and Capistrano sandy loam, 9 to 15 percent slopes. Access to the site is via El Toro Road near the California State Route 73 southbound onramp.

6. Hermosa/La Pata

The 1.89-acre potential stockpile site is an empty lot comprised of dirt and bare ground recently mowed or disced, with a dry detention basin in the southern portion. Based on historic aerials, this site has been cleared at least once a year since the mid-1990s, often being used as a construction yard or parking for construction vehicles. This location is surrounded by residential development on all sides. Retail stores and the Forrester Ridgeline Trail are directly north of this location, Vista Hermosa Sports Park directly to the west and Orange County Fire Station No. 59 adjacent to the south. Soils are mapped as Bosanko clay, 15 to 30 percent slopes. Access to the site is from the intersection of Avenida Vista Hermosa and Avenida La Pata.

7. Avenida Pico/El Camino Road

The 0.75-acre potential stockpile site is an existing fenced construction storage area comprised of dirt and bare ground with vehicles, equipment, and uncovered soil stockpiles stored there at the time of this survey. The location is adjacent to the City of San Clemente Maintenance facility to the east, Pico Park to the west, and residential development to the north and south. This site is located within the Coastal Zone. Soils are mapped as Alo clay, 9 to 15 percent slopes, and Alo clay, 30 to 50 percent slopes. Access to the site is from Avenido Pico and El Camino Road.

8. North Beach Stockpile Site

The 0.41-acre potential stockpile site is an existing dirt lot used for night markets and food truck gatherings. This location is adjacent to restaurants to the east and west, Pico Park and trail summit to the north, as well as residential development to the north and south. This site is located within the Coastal Zone. Soils are mapped as Sorrento clay loam, 2 to 9 percent slopes, and beaches. Access to the site is from Avenido Pico and El Camino Road.

3.2 BIOLOGICAL RESOURCES

3.2.1 VEGETATION COMMUNITIES

Based on the field surveys, the eight potential stockpile sites were mapped using at least one of the following two vegetation types: Disturbed Habitat, and/or Urban/Developed (Figures 3-1 through 3-8). Please note that while Disturbed Habitat and Urban/Developed are not in the MCV, these descriptions, originating from the Holland (1986) code classification system as modified by Oberbauer et al. (2008), will be used to describe partially unvegetated areas commonly mowed or disced, as well as gravel, pavement, or landscaped areas identified within the potential stockpile sites. A list of floral species observed or detected within each site is included as Appendix 1.

Figure 3-1. C02/C04 Confluence Biological Resources Map

Figure 3-2. Gothard Street Biological Resources Map

Figure 3-3. D03 D/S California at E01 Bike Trail Biological Resources Map

Figure 3-4. North Star Biological Resources Map

Figure 3-5. Audubon Basin I01B02 Biological Resources Map

Figure 3-6. Hermosa/La Pata Biological Resources Map

Figure 3-7. Avenida Pico/El Camino Road Biological Resources Map

Figure 3-8. North Beach Stockpile Site Biological Resources Map

Areas mapped as Disturbed Habitat typically support bare ground or a predominance of non-native plant species (typically invasive/weedy in nature and introduced by human action), excluding non-native grasses, in response to regular human disturbance. Eight of the potential stockpile locations were mapped as all or partially disturbed habitat. Below is a brief description of habitat at each of these locations. Areas are mapped as Urban/Developed include gravel or paved surfaces, as well as landscaped areas. Three of the potential stockpile sites contain Urban/Developed areas and are described below.

1. CO2/CO4 Confluence (Bolsa Chica and Edinger)

CO2/CO4 Confluence (Bolsa Chica and Edinger; Site 1) has Disturbed Habitat mapped in the center of the triangular portion of the site. This area within Site 1 is comprised of dirt with some gravel and little to no vegetation. The majority of this site is mapped as urban/developed. Gravel areas were mapped as urban/developed, being used as access roads and active construction storage. One area along Edinger Avenue supports a very limited amount of alkali weed (*Cressa truxillensis*) where it appears that stormwater runoff from the adjacent access road collects where construction BMP straw wattles occur along the chain link fencing.

2. Gothard Street

Gothard Street (Site 2) is entirely mapped as Disturbed Habitat. Comprised mostly of bare ground and soil stockpiles, this site has little vegetation except for two Brazilian pepper trees (*Schinus terebinthifolius*) in the center and common non-native forb species along the perimeter fencing dominated by horseweed (*Erigeron canadensis*), castor bean (*Ricinis communis*), and horehound (*Marrubium vulgare*). Other species along the fence line include black mustard (*Brassica nigra*) and the occasional native chapparal candle (*Hesperoyucca whippleyi*).

3. DO3 D/S California at E01 Bike Trail

DO3 D/S California at E01 Bike Trail (Site 3) is predominately mapped as Disturbed Habitat consisting of dirt and some gravel with little to no vegetation. The all-gravel portion of the site is mapped as urban/developed.

4. North Star

North Star Parking Lot (Site 4) is entirely mapped as Disturbed Habitat. This sandy site is an active parking lot but contains sparse patches of telegraph weed (*Heterotheca grandiflora*) along the perimeter.

5. Audubon Basin I02B01

The southwest portion of Audubon Basin I01B02 (Site 5) is mapped as Disturbed Habitat. This relatively small dirt patch along the perimeter fence is dominated by horseweed with telegraph weed with tumbleweed (*Salsola tragus*) present as well. Most of this site is an unvegetated gravel lot and is mapped as urban/developed.

6. Hermosa/La Pata

Hermosa/La Pata (Site 6) is entirely mapped as Disturbed Habitat, dominated by both the non-native forb species bristly ox-tongue (*Helminthotheca echiodes*) with approximately 20 percent cover, as well as the native shrub Menzie's goldenbush (*Isocoma menziesii var. menziesii*) with approximately 30 percent cover. No other plant species were detectable due to the dried up and mowed/disced condition of the remaining plant material fragments. A dry made man detention basin is present in the southern portion of the site with a similar species composition and cover.

7. Avenida Pico/El Camino Road

Avenida Pico/El Camino Real (Site 7) is entirely mapped as Disturbed Habitat. This active construction storage area is mostly bare dirt ground with a few sparse patches of desiccated annual weedy forbs.

8. North Beach Stockpile Site

North Beach Stockpile Site (Site 8) is also entirely mapped as disturbed habitat. Similar to Site 8, this fenced lot is mostly bare dirt ground with mixed gravel in some areas as well as sparse patches of weedy annuals.

3.2.2 FAUNAL RESOURCES

The eight potential stockpile sites occur mostly within urban or suburban Orange County, surrounded all or in part by development. As a result, most wildlife encountered during the survey were common urban adapted species. A brief description of fauna observed or detected during field surveys and the potential for fauna to use each site is discussed below. A list of fauna species observed or detected within each potential stockpile site is included as Appendix 2.

1. CO2/CO4 Confluence (Bolsa Chica and Edinger)

Within this site, common urban adapted avian species such as the European starling (*Sturnus vulgaris*) and killdeer (*Charadrius vociferous*) were observed and/or detected. Due to this site being adjacent to a fully tidal open water channel, species observed offsite within the channel include common open water and marsh species such as American wigeon (*Mareca americana*), double-crested cormorant (*Phalacrocorax auritus*), osprey (*Pandion haliaetus*), and an unidentified dowitcher species (*Limnodromus* sp.). No reptiles or mammals were detected at this site, although if present would be limited to urban tolerant ubiquitous species.

2. Gothard Street

Within the Gothard Street potential stockpile site, common urban adapted avian species such as the house finch (*Haemorhous mexicanus*), house wren (*Troglodytes aedon*), yellow-rumped warbler (*Dendroica coronata*) and the California towhee (*Melozone crissalis*) were observed and/or detected. An American kestrel (*Falco sparverius*) was observed offsite to the south within the riparian habitat surrounding Lake Ranc. No reptile or mammal species were detected at this site; however, potential reptile species that may utilize this site would be limited to common species such as southern alligator lizard (*Elgaria multicarinata*) and gopher snake (*Pituophis catenifer*).

3. DO3 D/S California at E01 Bike Trail

Hutton's vireo (*Vireo huttoni*), an avian species often associated with oak woodlands, as well as common urban adapted species such as the white-crowned sparrow (*Zonotrichia leucophrys*) and the yellow-rumped warbler were observed and/or detected within the landscape trees and/or shrubs within this site. No reptiles were detected at this site, and the only mammal species detected was the California ground squirrel (*Spermophilus beecheyi nudipes*). The potential for reptile species and additional mammal species to occur onsite would be limited to common urban tolerant species.

4. North Star

Common urban adapted avian species such as the American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), and rock pigeon (*Columba livia*) were observed and/or detected within the North Star location. No reptiles were detected, and the only mammal species detected (i.e., scat) onsite was

domestic dog (*Canis familiaris*). The potential for reptile species and additional mammal species to occur onsite would be limited to common urban tolerant species.

5. Audubon Basin I02B01

Common urban adapted species including killdeer were observed at this potential stockpile site, as well as common bird species associated with the adjacent native scrub habitat and/or freshwater marsh and riparian habitat within the detention basin such as blue-gray gnatcatcher (*Polioptila caerulea*) and common yellowthroat (*Geothlypis trichas*). Turkey vulture (*Cathartes aura*) and red-shouldered hawk (*Buteo lineatus*) were observed and/or detected offsite in the surrounding hills. The common reptile species western fence lizard was detected as well. No mammals were present during the time of the survey, but coyote have potential to use this site. The potential for additional reptile species and mammal species to occur onsite would be limited to common urban tolerant species.

6. Hermosa/La Pata

Cassin's kingbird, a common avian species often associated with open scrub habitat, was the only avian species detected at this location. No reptiles were observed; however, common species such as the western fence lizard (*Sceloporus occidentalis*) may also be present. Mammal species detected (i.e., gopher holes) included valley pocket gopher (*Thomomys bottae*). The potential for additional reptile species and mammal species to occur onsite would be limited to common urban tolerant species.

7. Avenida Pico/El Camino Road

No faunal species were observed or detected at the time of this survey; however, common avian species such as house finch and rock pigeon have the potential to use this site, as well as common reptile species such as the western fence lizard. The potential for mammal species to occur onsite would be limited to common urban tolerant species.

8. North Beach Stockpile Site

Similar to Site 7, no faunal species were observed or detected at the time of this survey. Again, common avian species such as house finch, rock pigeon, and western gull (*Larus occidentalis*) have the potential to utilize this site, as well as common reptile species such as the western fence lizard or side-blotched lizard (*Uta stansburiana*) due to the extent of sandy soils onsite.

3.2.3 SENSITIVE, RARE, THREATENED, AND ENDANGERED SPECIES

Only one sensitive floral species was detected at any of the potential stockpile sites. One paniculate tarplant (*Deinandra paniculata*), a CRPR 4.2 species, was detected within the disturbed habitat mapped in the southwestern portion of Audubon Basin (Site 5; Figure 3-5). While most of this site is covered in a layer of gravel, the small portion of disturbed habitat is bare ground with sparse vegetation cover. This site is adjacent to slopes covered in native habitat where the seed source may have originated; however, this species is also known to occur in disturbed areas with sandy soils similar to this site.

According to CNDDB records and including the species above, 27 flora and 45 fauna sensitive species occur regionally within the vicinity (approximately two miles) of all eight potential stockpile sites. Maps of CNDDB occurrences within the vicinity of each of the eight potential stockpile sites can be found in Appendix 3. Of these 72 species, none have at least a moderate potential to occur at any of the eight locations. More information about these remaining species, including sensitivity codes, habitat requirements, and a brief explanation of why each is not expected or has a low potential to be found within each of the eight potential stockpile sites can be found in Appendix 4.

3.2.4 JURISDICTIONAL AQUATIC RESOURCES

No jurisdictional aquatic resources were found, and none are expected within any of the eight potential stockpile sites; however, as mentioned above, aquatic resources are located adjacent and offsite from three sites: C02/C04 Confluence (Site 1), Gothard Street (Site 2), and D03 D/S California at E01 Bike Trail (Site 3).

Site 1 is adjacent to the Bolsa Chica Westminster Channel which supports tidally influenced open water and salt marsh habitat dominated by pickleweed (*Salicornia* sp.). Site 2 is approximately 220 feet north of Lake Ranc and the surrounding riparian habitat. Site 3 is adjacent to the cement channelized Santa Anna River that supports open water to the north, and an unnamed, potentially jurisdictional cement lined channel that also supports open water to the south.

3.2.5 WILDLIFE CORRIDORS

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

Each of the eight potential stockpile sites are surrounded entirely or mostly by urban development, with many being fenced as well. These locations are also all currently or have previously been used as storage, parking, or construction staging and provide limited value for wildlife movement due to the size, disturbed condition, human activities, and isolated nature, from a wildlife corridor perspective, of each location.

The Orange County NCCP/HCP Reserve includes conserved large tracts of natural habitat that are interconnected by habitat linkages that function as wildlife movement corridors. Wildlife corridors typically support topography that provides a path of least resistance in terms of energetics such as along canyon bottoms/riparian corridors and along ridgelines. The Orange County NCCP/HCP identifies habitat linkages within the Reserve in Section 3.6 through 3.9 and shown in Figures 11-13, 22, and 75. None of the project locations are located within any of the linkages identified in Sections 3.6 through 3.9 of the OC NCCP/HCP.

3.3 ORANGE COUNTY NCCP/HCP AND LOCAL GENERAL PLANS

Of the eight potential stockpile sites, one is located within the Orange County NCCP/HCP Reserve System, and one is located within one mile of the Reserve System but separated by existing urban development. The additional six sites are not located within or near Reserve System lands or identified special linkages. Site 5, Audubon Basin I02B01, is located within Non-Reserve Open Space designated land, meaning it was publicly owned prior to the adoption of the NCCP/HCP and is therefore not subjected to the development requirements of the Reserve. Site 4, North Star Parking Lot, is located approximately one mile southwest of the Upper Newport Bay Nature Preserve.

Site 1 and Site 2 are found within the city of Huntington Beach. Site 1, CO2/CO4 Confluence, is not designated as Open Space. Site 2, Gothard Street, is designated as Open Space-Park, which according to the Huntington Beach General Plan (2017), provides for public parks and recreation facilities as well as other ancillary uses such as temporary equipment storage.

Site 3, DO3 D/S California at E01 Bike Trail is found within the City of Costa Mesa, and is not designated as open space.

Site 4, North Star Parking Lot, is located within the City of Newport Beach. The southern portion of this site is designated as Residential, and the northern portion is designated as Parks and Recreation by the City of Newport Beach General Plan (2006).

Site 5, Audubon Basin I02B01, is located within the City of Aliso Viejo. As stated previously, the City of Aliso Viejo is a signatory of the Orange County NCCP/HCP, and the site is mapped as Non-Reserve Open Space within the city's General Plan (2014).

Sites 6, 7, and 8 are located within the City of San Clemente. Site 6, Hermosa/La Pata, is designated as Neighborhood Commercial by the city's General Plan (2021). Site 7, Avenida Pico/El Camino Road, and Site 8, North Beach Stockpile Site, are both designated as Mixed Use.

Due to the proposed project being limited to temporary storage of sediment within existing disturbed or developed areas at each site and is not expected to impact any native plant communities (i.e., coastal sage scrub, riparian plant communities), implementation of the proposed project will be consistent with the rules and regulations of the Orange County NCCP/HCP as well as the general plans discussed above.

4.0 IMPACT ASSESSMENT & RECOMMENDED AVOIDANCE AND MITIGATION MEASURES

4.1 IMPACT ASSESSMENT

Most of the eight potential stockpile sites where proposed sediment storage may occur are located within already developed or disturbed areas that are not expected to support sensitive flora, fauna, and native habitats. However, there are three sites where sensitive biological resources were documented within or adjacent to the site. No direct impacts are proposed to jurisdictional aquatic resources as none occur within any of the eight sites; however, there are jurisdictional aquatic resources located in proximity to the three (Sites 1, 3, and 5) sites referenced above. Project activities at these sites may potentially impact (e.g., sedimentation, increased turbidity, reduced water quality) these jurisdictional resources as a result of potential discharge into the waterway if stockpiled soils are not properly stored and contained. Direct and indirect impacts to migratory nesting birds protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code Sections 3503 and 3513 may also occur if project activities occur during the avian nesting season (January 15 – September 15).

It is anticipated that the placement, storage, and eventual removal of sediment stockpiles at most of these sites will cause minimal disturbance to onsite and/or surrounding flora, fauna, and habitats; however, the below recommended measures will ensure avoidance of impacts to biological resources as a result of project activities.

4.2 RECOMMENDED AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following sediment storage best management practices (BMPs) and MBTA/CFG Code compliance measures are recommended to avoid direct or indirect impacts at all eight potential stockpile sites:

- Placement of stockpiles within each site should be located within relatively flat terrain that is not in close proximity to and does not slope toward a sensitive biological resource such as a jurisdictional aquatic resource or native habitat.
- Stockpiles not scheduled to be utilized within 14 days of placement should be considered non-active immediately, and the following protective measures should be implemented:
    - Temporary perimeter sediment barriers such as compost berms, temporary silt dykes, fiber rolls, silt fences, sandbags, gravel bags, or biofiltration bags should be used.
    - A suitable covering should be installed securely to protect the stockpile from wind and rain.
        - Length of storage should be taken into consideration when choosing an appropriate cover.
- Regular inspections and maintenance of these BMPs, with particular attention during the rainy season, should occur for the duration of stockpile storage at each site.
- To avoid direct impacts to migratory birds and/or raptor active nests protected under the federal MBTA and CFG Code Sections 3503 and 3513, removal of habitat that supports active nests within the project impact area should occur outside of the breeding season for applicable species. The bird breeding season is generally defined as January 15 to August 31 for raptor species; February 15 to September 15 for other non-raptor birds. If removal of habitat outside the breeding season is not feasible, then an active bird nest survey is required to determine if any protected migratory bird and/or raptor active nests occur within the project impact area during the breeding season. The nest survey is required to be conducted within 3 days prior to initiating project stockpiling activities onsite during the bird breeding season (January 15 – September 15). If any active nests are detected, the area should be flagged and an appropriate

buffer mapped for the species present, as determined by a qualified biologist. This buffer should be avoided until the nesting cycle is complete.

4.3 SITE SPECIFIC AVOIDANCE AND MITIGATION RECOMMENDATIONS

Below are site specific measures to ensure no project related impacts. Three out of the eight sites have the following additional measures.

1. C02/C04 Confluence
   - In order to avoid impacts to open water and salt marsh habitats in the adjacent Bolsa Chica Westminster Channel, a buffer large enough to install, maintain, and inspect stockpile BMPs should be left between any stockpiled soil and the upper edge of the adjacent cement channel.
     - The triangular portion of this site should be used for stockpile storage of sediment with greater than 35 percent fines if stored over wet season.
2. D03 D/S California at E01 Bike Trail
   - In order to avoid impacts to the unnamed cement lined channel adjacent to this site to the southeast, a buffer large enough to install, maintain, and inspect stockpile BMPs should be left between any stockpiled soil and upper edge of the adjacent cement river channel.
3. Audubon Basin I02B01
   - In order to avoid impacts to paniculate tarplant, a sensitive species, a survey should be performed by a qualified biologist prior to any storage event and, if found, any paniculate tarplant should be fenced off with ribbon or yellow rope and t-posts (Figure 3-5).
   - In order to avoid impacts to adjacent native habitats and/or downstream aquatic jurisdictional resources, a buffer large enough to install, maintain, and inspect stockpile BMPs should be left between any stockpiled soil and the upper edge of the adjacent detention basin to the north, overflow channel located in the western portion of site that crosses the site and drains to native riparian habitat, and the brow ditch along the southern perimeter that drains to native riparian habitat.

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Appendix 1. Flora List

Appendix 2. Fauna List

Appendix 3. CNDDB Occurrences Maps

Appendix 4. Potential Sensitive Species Table