

Oceanside Circulation Element Update

Appendix C

Biological Technical Report

Prepared by Merkel & Associates, Inc.

March 20, 2012

**CITY OF OCEANSIDE
GENERAL PLAN, CIRCULATION ELEMENT UPDATE
PROGRAM ENVIRONMENTAL IMPACT REPORT (PEIR)
Biological Technical Report**

Third Revision March 20, 2012
Second Revision January 19, 2012

Revised April 27, 2011

January 4, 2011

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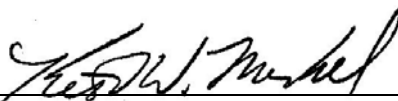
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GLOSSARY OF TERMS AND ACRONYMS

ACOE	Army Corps' of Engineers
amsl	above mean sea level
BSA	biological study area
CESA	California Endangered Species Act
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
City	City of Oceanside
CWA	Clean Water Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FP	Fully Protected species
GIS	Geographical Information Systems
I-5	Interstate Highway 5
M&A	Merkel & Associates, Inc.
MBTA	Migratory Bird Treaty Act
MCB	Marine Corps Base Camp Pendleton
MHCP	Multiple Habitat Conservation Program
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Planning Act
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PAMA	Pre-Approved Mitigation Area
PEIR	Program Environmental Impact Report
QA/QC	Quality Assurance/Quality Control
RDO	Rancho del Oro
RWQCB	Regional Water Quality Control Board
SR	State Route
SSC	Species of Special Concern
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WCPZ	Wildlife Corridor Planning Zone
WL	Watch List species

SUMMARY OF FINDINGS

Merkel & Associates, Inc. (M&A) has prepared this biological technical report for the City of Oceanside's (City) General Plan Circulation Element Update Project in support of the Program Environmental Impact Report (PEIR). The purpose of this report is to: 1) identify the baseline biological conditions (based on existing biological literature and data) present within the areas of the City's transportation system proposed for modifications under the City's General Plan Circulation Element Update; 2) to evaluate potential impacts to biological resources that could result from these modifications at the PEIR tier level; and 3) to recommend measures to avoid, minimize, and/or mitigate significant impacts that would be subsequently addressed through analysis at a lower tier, Project (site-specific) level of environmental review, consistent with the California Environmental Quality Act (CEQA) and applicable federal, state, and local regulations and guidelines.

This report provides an analysis of key network circulation element assumptions under a Baseline (i.e., 2030 Current Circulation Element Baseline) and two Alternatives (i.e., Alternatives 1 and 2). The biological analysis included in this report ~~is~~ is based entirely on historical and currently available biological literature and Geographical Information Systems (GIS) data pertaining to areas encompassing the proposed baseline and alternative circulation elements (i.e., no field surveys were conducted).

The City of Oceanside is located within the Multiple Habitat Conservation Program (MHCP) planning area, a subregional plan for northwestern San Diego County under the California Natural Community Conservation Planning (NCCP) Act and section 10(a) of the federal Endangered Species Act (ESA) (AMEC et al. 2003). Regionally important biological resources, including sensitive habitat and species, primarily occur along the San Luis Rey River and Pilgrim Creek, and to a lesser extent along Loma Alta Creek and scattered locations throughout the City (City 2009).

The proposed Project is being evaluated at a General Plan PEIR tier level; therefore, biological impacts resulting from project implementation are assessed on the basis of proposed General Plan Circulation Element changes. Actions ultimately resulting in quantifiable direct impacts to biological resources would be addressed subsequently through analysis at a lower tier, site-specific level of environmental review.

Proposed planning actions under the Baseline and Alternatives 1 and 2 would result in less than significant impacts with mitigation incorporated at the General Plan PEIR tier level, according to the following CEQA significance thresholds:

- Would the Project 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 (CDFG) or U.S. Fish and Wildlife Service (USFWS)?
- Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation or by the CDFG or USFWS?
- Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved local, regional, or state habitat conservation plan?

The Baseline and Alternatives 1 and 2 would each result in significant impacts under all of the above CEQA thresholds; however, based on analysis of the key network circulation assumptions, Alternative 2 would result in the least amount of biological impacts, followed by Alternative 1, and then the Baseline.

Mitigation measures have been developed to provide assurances, at the General Plan PEIR tier level, that potential significant biological impacts associated with the proposed project will be mitigated. In some instances, this assurance is obtained by incorporation of planning policies at the General Plan level, with subsequent verification to occur at lower tiers of environmental review. In other instances, specific mitigation measures are incorporated to reduce impacts at the site-specific level. Finally, in some instances, it is not possible at the General Plan level to determine if biological impacts would occur from implementation of proposed planning actions; for these situations, mitigation measures provide for further review of the concerns at the plan or project-specific level. It is intended that increased planning detail developed through subsequent Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) documents submitted for approval, will identify site-specific impacts and mitigation measures. Thus, the following measures are not intended to restrict the identification of significant biological impacts, or the development of appropriate mitigation measures as determined through analysis at a lower tier of environmental review.

- Planning policies shall include a requirement to make use of project designs, engineering, and construction practices that minimize impacts to sensitive habitats and species.
- Further environmental review shall be conducted in accordance with appropriate National Environmental Policy Act (NEPA)/CEQA documentation requirements where specific actions would result in impacts to sensitive habitats and/or species. These reviews shall be conducted at the earliest possible period of tiered project review to ensure the most flexibility in planning and project design, and resolve conflicts with significant biological resources.
- Prior to the implementation of any projects within areas under the jurisdiction of federal, state, or local biological resource regulatory agencies, the project applicant for the specific work shall obtain any and all applicable resource agency permits which may include, but are not limited to, Clean Water Act (CWA) §404 and §401 permits, USFWS Habitat Loss Permit pursuant to §4(d) of the ESA, and CDFG Code §1601 and §1603 streambed alteration agreements.
- The following measures will be considered at the project level review of each circulation element project and shall be incorporated as appropriate to the specific project:
 - A monitoring biologist shall be onsite during: a) initial clearing and grubbing of all native habitats; and b) project construction within 500 feet of preserved habitat to ensure compliance with all conservation measures. The biologist must be knowledgeable of the covered species biology and ecology.
 - The project shall temporarily fence (with silt barriers) the limits of project impacts (including construction staging areas and access routes) to prevent additional habitat impacts and prevent the spread of silt from the construction zone into adjacent native habitats to be preserved. Fencing shall be installed in a manner that does not impact

- habitats to be preserved. Temporary construction fencing shall be removed upon project completion.
 - o Impacts from fugitive dust will be avoided and minimized through watering and other appropriate measures.
 - o Construct noise barriers for short sections of road that may impact wildlife breeding;
 - o Site traffic controls such as stoplights and stop signs away from sensitive habitat to reduce the concentration of emissions and noise levels;
 - o Minimize any materials sidecasting during road construction and maintenance.
- Where potential impacts to federal and/or state listed sensitive species and/or MHCP narrow endemic species may occur as a result of proposed project actions, coordination with responsible listing agencies (USFWS and/or CDFG) shall be completed as early as possible and in conjunction with, or prior to, the CEQA process for actions, which may affect these species. Specific actions necessary to protect these sensitive species shall be determined on a case-by-case basis.
- Proposed project activities should occur outside of the avian breeding season, generally from February 15 to September 15 (as early as January 1 for raptors) to avoid take of birds or their eggs. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted. If avoidance of the avian breeding season is not feasible, the Wildlife Agencies recommend that beginning 30 days prior to the initiation of project activities, a qualified biologist with experience in conducting breeding bird surveys conduct weekly bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors or listed species). The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of project activities. If a protected native bird is found, the project proponent should delay all project activities within 300 feet of on- and off-site suitable nesting habitat (within 500 feet for suitable raptor or listed species nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptors or listed species nests) or as determined by a qualified biological monitor, must be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, and/or construction fencing should be used to demarcate the inside boundary of the buffer of 300 feet (or 500 feet) between the project activities and the nest. If the biological monitor determines that a narrower buffer between the project activities and observed active nests is warranted, he/she should submit a written explanation as to why to the City (and, upon request, the Wildlife Agencies, if they so request) will determine whether to allow a narrower buffer. The biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint and that the flagging/staking/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to the City and shall notify the City immediately if project activities damage active avian nests.
- It is recommended that habitat-based mitigation be implemented consistent with established ratios in the MHCP region and City of Oceanside (i.e., wetland and riparian/MHCP Habitat Group A at a ~~no net loss~~ 1:1 to 4:1 ratio, depending on the habitat type, quality and location within the Subarea; rare upland/MHCP Habitat Group B at a 2:1 to 3:1 ratio; coastal sage scrub/MHCP Habitat Group C at a 1:1 to 3:1 ratio; chaparral/MHCP Habitat Group D at a 0.5:1 to 1:1; and annual grasslands/MHCP Habitat Group E at a 0.5:1 ratio). Mitigation should be completed through 1) on-site preservation; 2) off-site acquisition of mitigation land located within the regional; 3) habitat restoration that increases the habitat quality and biological function

- of the site; or 4) monetary compensation to acquire, maintain and administer the preservation of sensitive biological resources.
- Impacts to jurisdictional waterways would require the following permits by regulatory federal and state agencies: 1) Army Corps' of Engineers (ACOE), CWA, Section 404 permit for placement of dredged or fill material within waters of the U.S.; 2) Regional Water Quality Control Board (RWQCB), CWA, Section 401 state water quality certification/waiver for an action that may result in degradation of waters of the State; and 3) CDFG, California Fish and Game Code, Section 1602 agreement for alteration of a streambed. Mitigation for unavoidable and/or minimized impacts to jurisdictional waterways would be required as part of the permitting process to ensure a no-net-loss of wetland habitat functions and values.
 - Proposed transportation infrastructure modification in proximity to wildlife areas shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into wildlife areas. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.
 - Night lighting shall be directed away from wildlife areas to protect species from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.”
 - Proposed noise generating activities during construction and post-construction affecting wildlife areas shall incorporate setbacks, berms, or walls to minimize the effects of noise on resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.
 - When approving landscape plans proposed adjacent to wildlife areas, permittees shall avoid the use of invasive species for the portions of development that are adjacent to wildlife areas. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the wildlife areas, species considered in the planting plans, biological resources being protected within the and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.
 - All future specific project actions undertaken shall be reviewed for consistency with City of Oceanside implementing plans/ordinances, and if applicable, the MHCP.
 - New roads or improvements to existing roads must include wildlife crossing improvements designed for species of concern in the area, and may include bridges, vegetated over-crossings, enlarged culverts, or other structures shown to be effective for wildlife movement, along with appropriate fencing to keep animals off of roads and funnel them to safe crossing points. The placement and design of such crossings, fences, and associated improvements (e.g., vegetation restoration) will be based on site-specific wildlife movement surveys and biological criteria included as part of the CEQA process or other appropriate implementing ordinances. Within or adjacent to the MHCP/Adopted SAP Preserve and/or WCPZ/Regional Corridor, the City will coordinate the design of the road improvements with the Wildlife Agencies to account for wildlife movement. This coordination needs to occur early enough in the planning process to influence the location, alignment, and design of the road improvements.
 - Noise within underpasses should be less than 60 dBA (decibels, A-weighted scale) during the time of day at which the animals use it.
 - Use skylight openings within the underpass to allow for vegetation cover within the underpass.

- Any new road should be located in the least environmentally damaging location and designed to minimize fragmentation and edge effects.
- Potential biological impacts to preserve areas (existing and proposed), WCPZ/Regional Corridor, and/or Agricultural Exclusion Zone identified in the draft Oceanside Subarea Plan/NCCP Plan (when adopted) shall require specific environmental studies associated with the proposed facilities, and subsequently mitigated to a level of less than significant.

With implementation of the above mitigation measures, biological impacts associated with the proposed project would be mitigated to a level below significance under CEQA at the General Plan PEIR tier level; however, specific actions at lower tiers of environmental review may be determined to result in significant biological impacts requiring further mitigation.

In addition, the BSA also has the potential to be utilized by regionally common migratory birds and raptors that are not designated as special status species under CEQA, but are protected under the federal Migratory Bird Treaty Act (MBTA) and CDFG Code Sections 3503 and 3513. Since nesting birds could be present during project construction, all grading and construction activities undertaken for the project shall comply with the regulatory requirements of the federal MBTA and CDFG Code Sections 3503 and 3513.

1.0 INTRODUCTION

Merkel & Associates, Inc. (M&A) has prepared this biological technical report for the City of Oceanside’s (City) General Plan Circulation Element Update Project in support of the Program Environmental Impact Report (PEIR). The purpose of this report is to: 1) identify the baseline biological conditions (based on existing biological literature and data) present within the areas of the City’s transportation system proposed for modifications under the City’s General Plan Circulation Element Update; 2) to evaluate potential impacts to biological resources that could result from these modifications at the PEIR tier level; and 3) to recommend measures to avoid, minimize, and/or mitigate significant impacts that would be subsequently addressed through analysis at a lower tier, Project (site-specific) level of environmental review, consistent with the California Environmental Quality Act (CEQA) and applicable federal, state, and local regulations and guidelines.

1.1. Project Description and Location/Alternatives

The purpose of the City’s General Plan Circulation Element is to present a guide for further development of the City’s transportation system which provides for the efficient movement of people and goods. This report provides an analysis of one Baseline (i.e., 2030 Current Circulation Element Baseline) and two Alternatives (i.e., Alternatives 1 and 2). The 2030 Current Circulation Element Baseline is the adopted General Plan Circulation Element with two minor modifications to Jeffries Ranch Road and Old Ranch Road. Several key future network circulation elements under the Baseline would not be included under Alternative 1, and Alternative 2 represents a compromise between Alternative 1 and the Baseline. The Baseline and each proposed Alternative are generally located within Township 10 South, Range 4 and 5 West of the San Bernardino Base and Meridian, U.S. Geological Survey (USGS) San Luis Rey, California Quadrangle. Table 1 and Figures 1a-c below indicate the key network circulation element assumptions included under the Baseline and each proposed Alternative.

Table 1. Key Network Circulation Element Assumptions of Project Alternatives

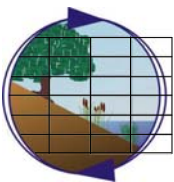
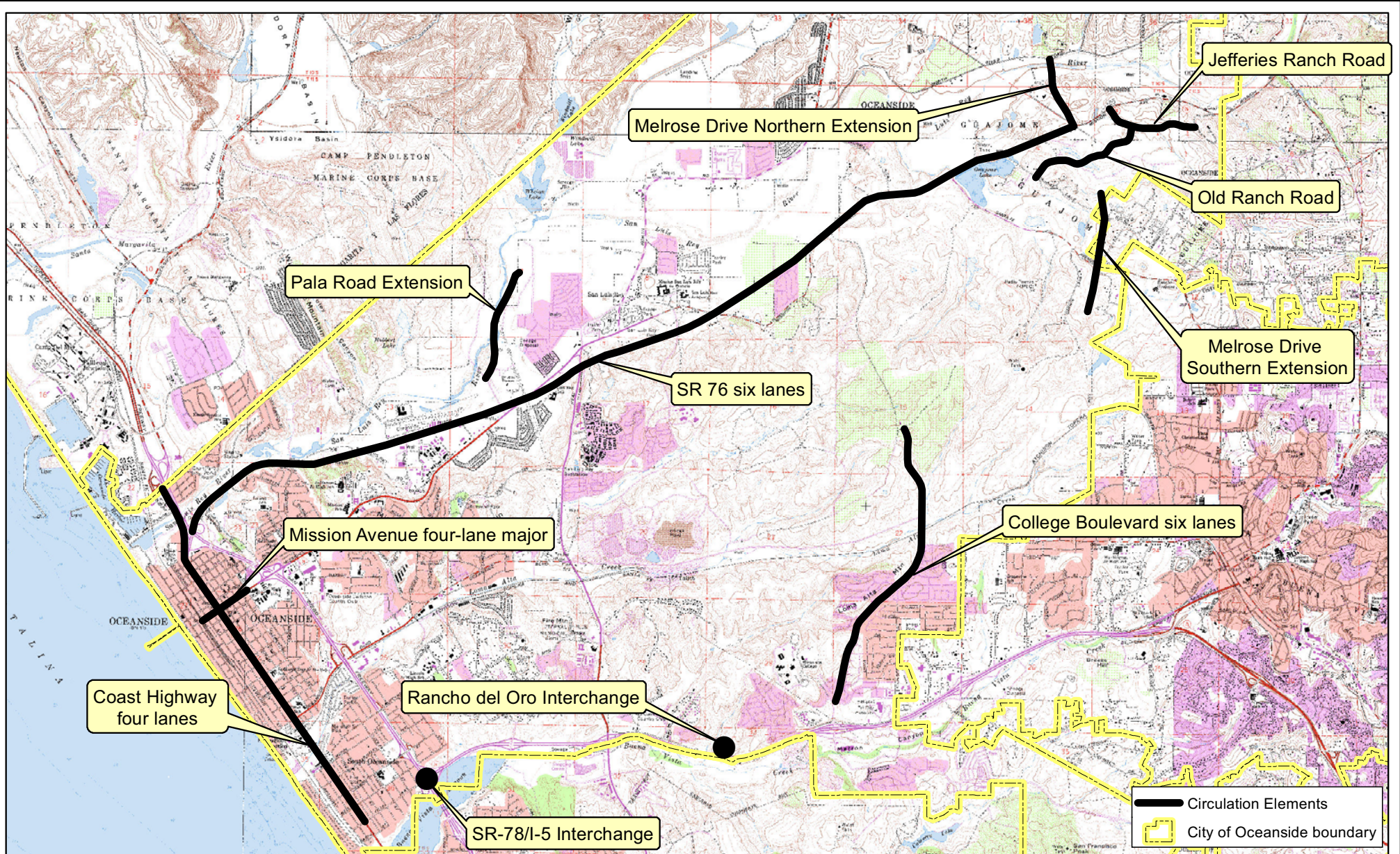
Key Network Circulation Element Assumptions	Baseline	Alternative 1	Alternative 2
State Route (SR) 78/I-5 Interchange ¹	●	●	●
SR 76 six lanes	●	●	●
Pala Road Extension	●	●	
College Boulevard six lanes	●	Hybrid ²	Hybrid ²
Rancho del Oro (RDO) Interchange	●	●	
Melrose Drive Northern Extension	●		
Melrose Drive Southern Extension	●	●	
Mission Avenue	●	● ³	● ⁴
Coast Highway	●	●	two lane
Jeffries Ranch Road not connected to SR-76	●	●	●
Old Ranch Road not connected	●	●	●

¹ Caltrans improvements

² College Boulevard would be six-lanes between Avenida de la Plata and Olive Drive and four lanes between Olive Drive and Waring Road

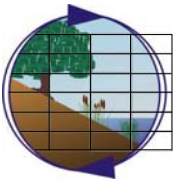
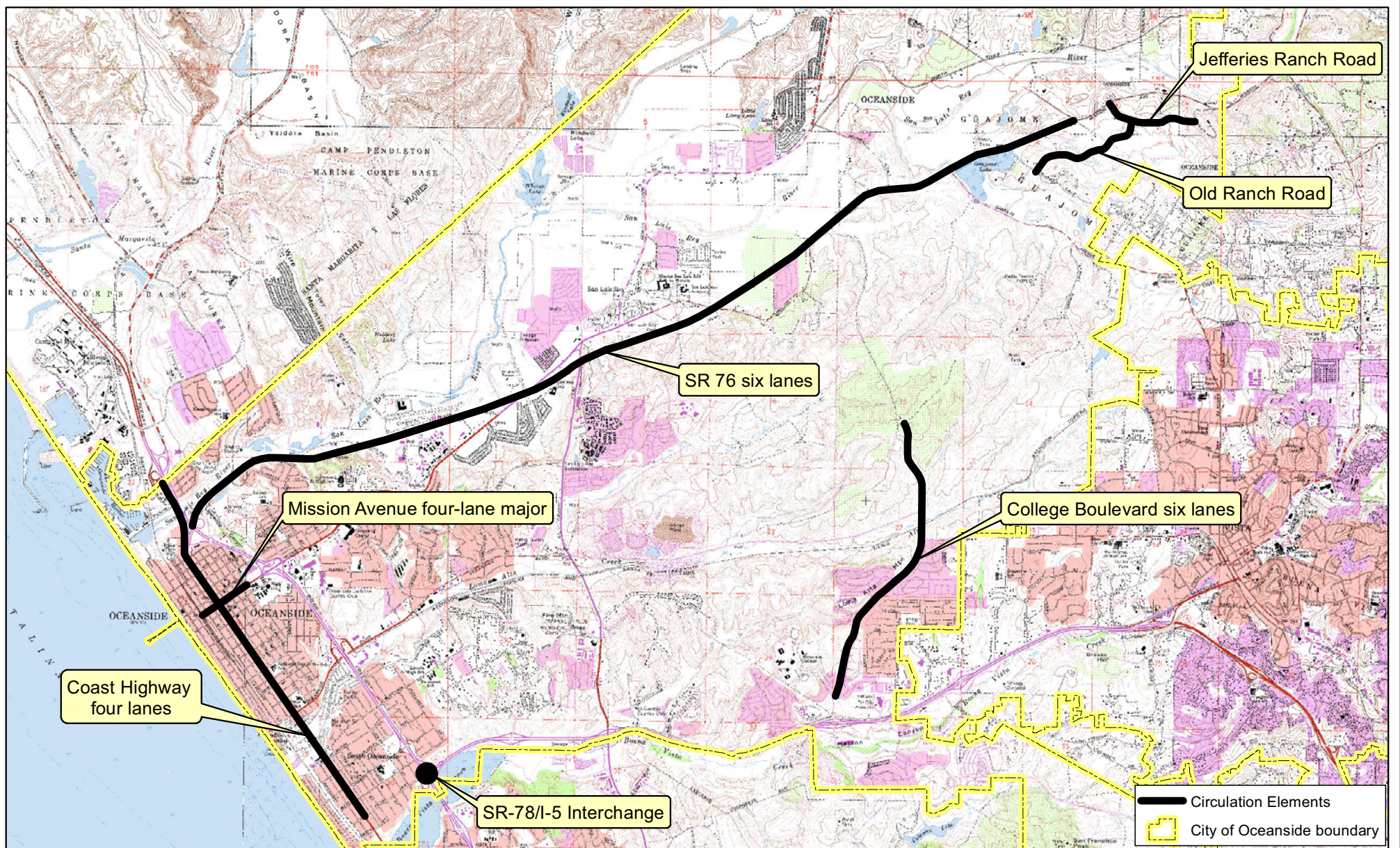
³ one-way couplet

⁴ four-lane secondary collector



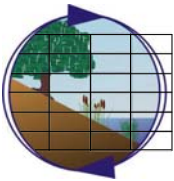
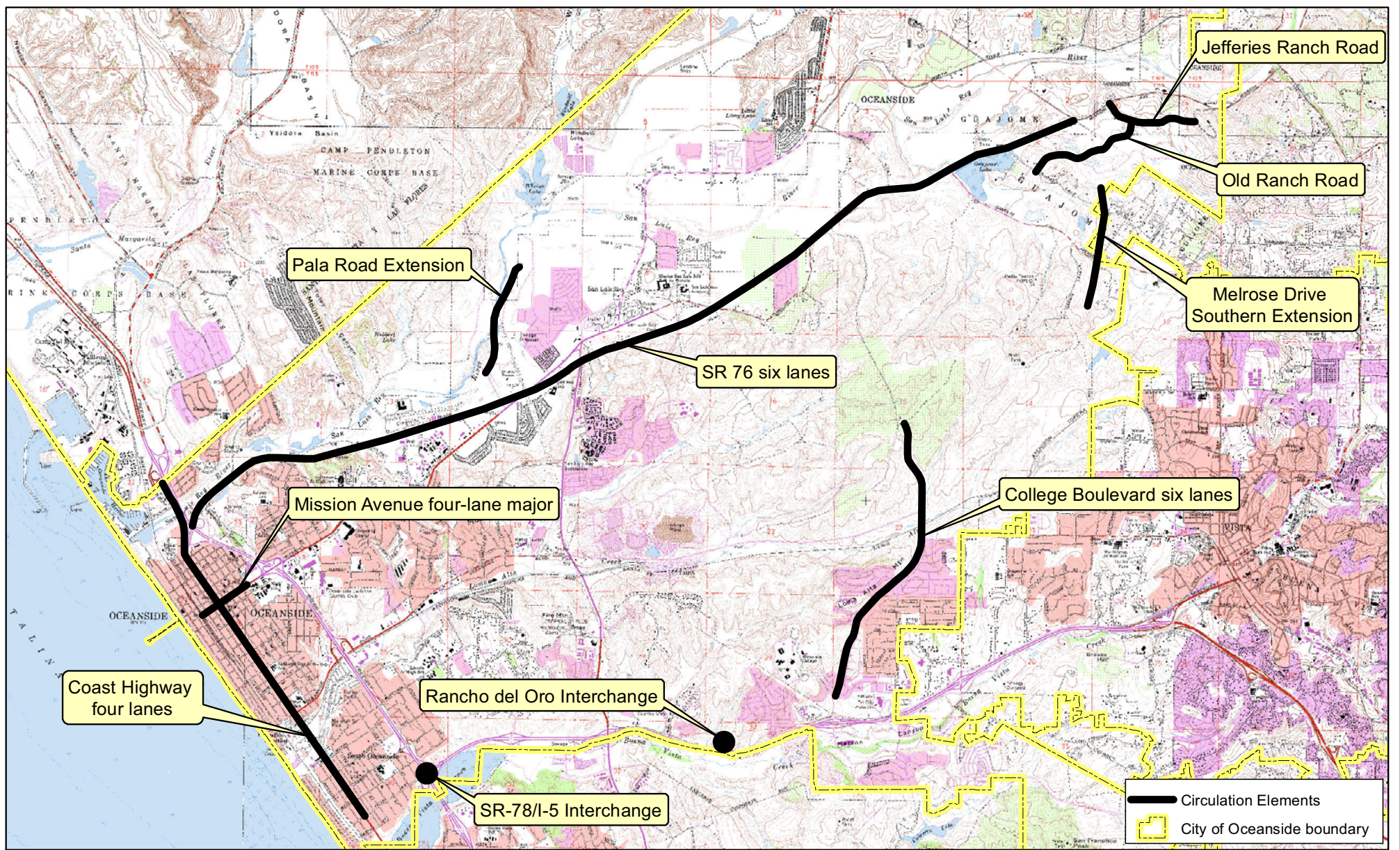
Project Vicinity Map - Baseline Element
City of Oceanside General Plan, Circulation Element Update PEIR
Source: USGS 7.5' San Luis Rey, CA Quadrangle

Figure 1a



Project Vicinity Map - Preferred Alternative 1 (E)
City of Oceanside General Plan, Circulation Element Update PEIR
Source: USGS 7.5' San Luis Rey, CA Quadrangle

Figure 1b



Project Vicinity Map - Preferred Alternative 2 (C)
City of Oceanside General Plan, Circulation Element Update PEIR
Source: USGS 7.5' San Luis Rey, CA Quadrangle

Figure 1c

2.0 METHODS

The biological analysis included in this report is based entirely on historical and currently available biological literature and Geographical Information Systems (GIS) data pertaining to areas encompassing the proposed baseline and alternative circulation elements (i.e., no field surveys were conducted). This review included examination of the following: aerial photography (Air Photo USA 2007); regional vegetation data (SanGIS 2007); geological substrates and soil types (USGS 2005 and USDA NRCS 2007, respectively); federally designated critical habitat (USFWS 2010b); Multiple Habitat Conservation Program (MHCP) planning documents (AMEC et al. 2003); and California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDDB) and U.S. Fish and Wildlife Service (USFWS) special status species records for the project vicinity (CDFG 2010a and USFWS 2010a, respectively). In addition, the final EIR for the Melrose Southern Extension (SCH#2002121008) (City of Oceanside, 2010), one of the proposed circulation elements, was reviewed.

For the purposes of this analysis, the biological study area (BSA) included a 500-foot buffer around the proposed baseline and alternative circulation elements. This buffer is anticipated to encompass all future construction, site access, and staging areas and would suffice for required biological analysis at the PEIR tier level.

Vegetation communities were identified based on regional GIS data (SanGIS 2007), which was then modified in some areas where comparison to aerial photography (Air Photo USA 2007) indicated apparent changes in land use and/or vegetation; thus, existing site-specific conditions may slightly differ. The vegetation types were classified according to the Holland (1986) code classification system as modified by Oberbauer (2008). The potential presence of common floral and faunal species was determined based on the presence of potentially suitable habitat, general knowledge of regional species occurrences in the identified vegetation communities, and published regional accounts of occurrence.

No jurisdictional wetland delineation was performed for the entire study area for the proposed project. However, individual jurisdictional delineations would be performed for certain project areas with potential project impacts to wetlands/waterways when the project alternatives have been selected. The jurisdictional wetland delineations would be performed using the routine onsite determination methods noted in the 1987 U.S. Army Corps of Engineers' (ACOE) Wetland Delineation Manual (Environmental Laboratory 1987). In addition, the delineation effort would be expanded to identify wetlands/non-wetland waters of the U.S. and streambeds under federal and state jurisdiction, respectively.

State CEQA Guidelines §15380 (Title 14, Chapter 3, Article 20) define “endangered, rare or threatened species” as “species or subspecies of animal or plant or variety of plant” listed under the Code of Federal Regulations, Title 50, Part 17.11 or 17.12 (Volume 1, Chapter I) or California Code of Regulations, Title 14, Sections 670.2 or 670.5 (Division 1, Subdivision 3, Chapter 3), or a species not included in the above listings but that can be shown to be “endangered” meaning “when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors” or “rare” meaning “although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens or the species is likely to become endangered within the foreseeable future

throughout all or a significant portion of its range and may be considered ‘threatened’ as that term is used in the Federal Endangered Species Act”. State CEQA guidelines Appendix G, Section IV generally refers to species that fall under the above criteria as “special status species”.

Thus, for the purposes of this report, special status species are: 1) federally and state listed species (CDFG 2010c and e); 2) CDFG Species of Special Concern (SSC), Fully Protected (FP), and Watch List (WL) species (CDFG 2009 and 2010d); 3) species designated as Special Plants or Special Animals in the CNDDDB, which include all taxa inventoried by the CDFG, regardless of their legal or protection status; and 4) MHCP Narrow Endemic and Covered Species (AMEC et al. 2003a).

The potential for special status species to occur within the BSA was assessed based on the presence of potentially suitable habitat, as well as historical and currently available species data (CDFG 2010a and USFWS 2010a). The potential for species presence was classified as follows:

- Not Expected: species not previously reported within two miles of the BSA and with limited potentially suitable habitat;
- Low Potential: species previously reported within two miles of the BSA but with limited potentially suitable habitat;
- Moderate Potential: species previously reported within two miles of the BSA but with only moderate quality, potentially suitable habitat due to habitat disturbance, fragmentation, or isolation; and
- High Potential: species previously reported within two miles of the BSA with large areas of contiguous, high quality, potentially suitable habitat present.

The scientific and common names utilized for the floral and faunal resources were noted according to the following nomenclature: flora, Rebman and Simpson (2006); butterflies, Klein and San Diego Natural History Museum (2002); amphibians and reptiles, Crother et al. (2001 and 2003); birds, American Ornithologists’ Union (1998 and 2010); and mammals, (species level) Wilson and Reeder (2005) and (sub-species level) Hall (1981).

3.0 EXISTING BIOLOGICAL CONDITIONS

This section of the report and Figures 2a through 2i below describe the environmental setting and existing biological conditions within the BSA as relevant to each circulation element under the proposed Baseline and two Alternatives. The following description under the environmental setting includes the main potential jurisdictional waterways and federally designated critical habitat located within the BSA, followed by the identified regional vegetation communities, expected floral and faunal resources, potential special status species and wildlife movement and nursery sites.

3.1. Environmental Setting

The City of Oceanside is located within the MHCP planning area, a subregional plan for northwestern San Diego County under the California Natural Community Conservation Planning (NCCP) Act and section 10(a) of the federal Endangered Species Act (ESA) (AMEC et al. 2003). The MHCP was approved under the CEQA process in 2003, and established guidelines designed to create, manage, and monitor an ecosystem preserve in the subregional planning area through implementation of citywide “subarea” plans. These subarea plans will describe the specific policies each city will institute for the MHCP. In exchange for these conservation actions, the participating cities will receive take authorization for listed species under the federal ESA and the California Endangered Species Act (CESA), as well as covered species that are not presently listed under either Act. At present, the City of Oceanside has a draft subarea plan/NCCP plan, dated 2009; however, this plan has not been adopted with a signed implementing agreement.

Areas planned to be preserved under the MHCP and draft Subarea Plan/NCCP Plan (not yet adopted) or are already conserved such as Buena Vista Lagoon Ecological Reserve (ER) are identified as “Softline” or “Hardline” Preserves. Preserve areas encompass portions of the BSA along SR 78/I-5 Interchange, SR 76, the Pala Road Extension, College Boulevard, Melrose Drive Northern and Southern Extensions, and Coast Highway circulation network elements (see Figures 2a, 2b, 2c, 2d, 2f, 2g, and 2i).

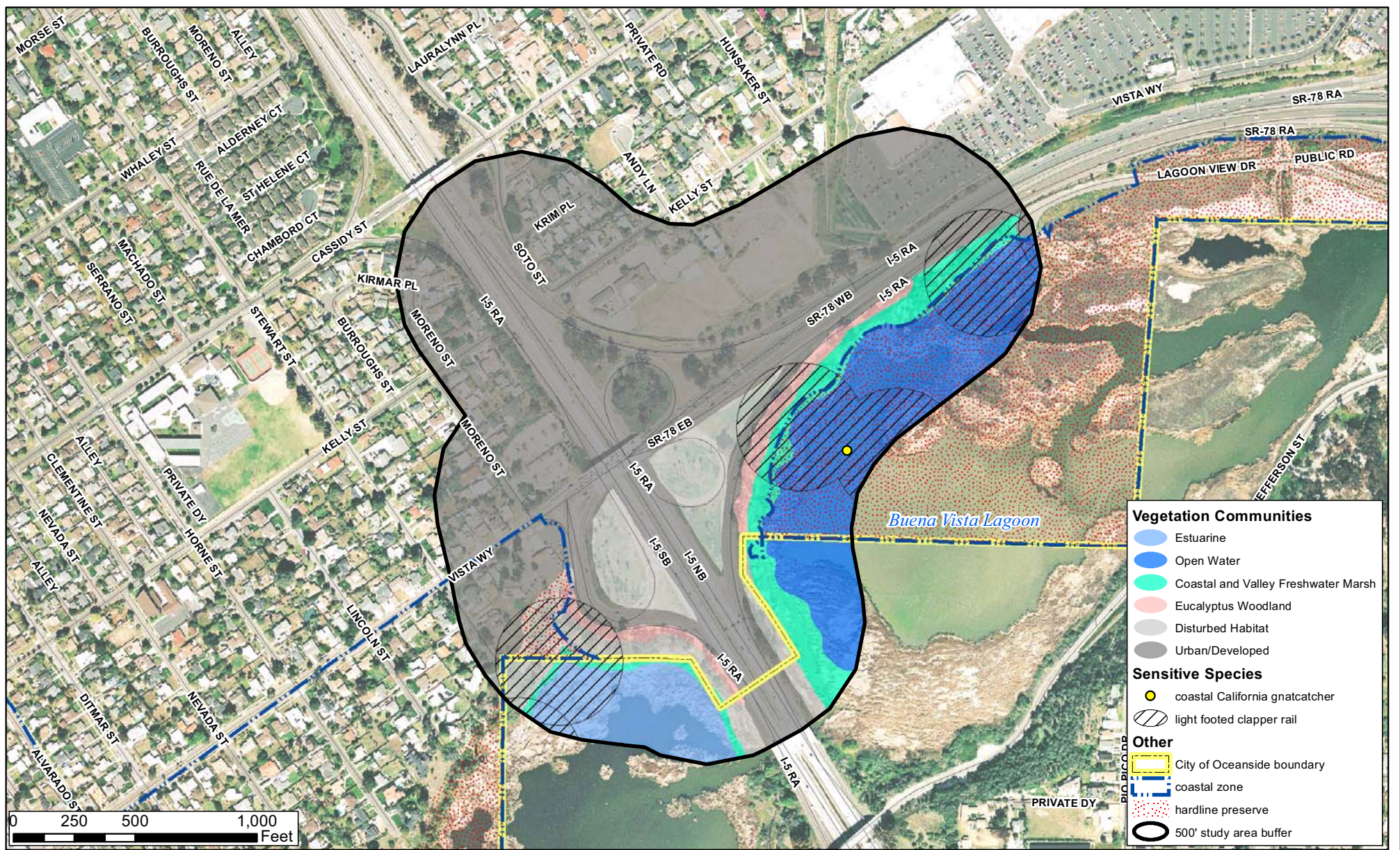
The draft Subarea Plan/NCCP Plan also includes the Wildlife Corridor Planning Zone (WCPZ), one of several zones designed to achieve Preserve design goals. The WCPZ encompasses natural lands (although predominately small and fragmented) that potentially contribute to the planned north-south regional gnatcatcher stepping-stone corridor. As shown in Figures 2b, 2c, and 2e, the BSA boundaries that overlap with the WCPZ include the SR 76 widening, the Pala Road Extension, and Rancho del Oro Interchange.

In addition, the draft Subarea Plan/NCCP Plan includes the Agricultural Exclusion Zone that consists of lands located north of the San Luis Rey River that are planned for agricultural uses under the Oceanside General Plan. Any discretionary action within this zone would be subject to additional conservation guidelines including but not limited to preserving, restoring, and/or enhancing native upland buffers adjacent to existing wetland vegetation. As shown in Figure 2f, only the Melrose Northern Extension BSA boundary overlaps with the Agricultural Exclusion Zone.

The City of Oceanside is the northern most incorporated coastal City within San Diego County and the MHCP subregion (City 2009). The majority of Oceanside is developed, and the City is bounded on the north by Marine Corps Base (MCB) Camp Pendleton, on the south by the City of Carlsbad, on the west by the Pacific Ocean, and on the east by the City of Vista and unincorporated areas of the County of San Diego.

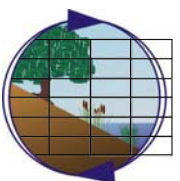
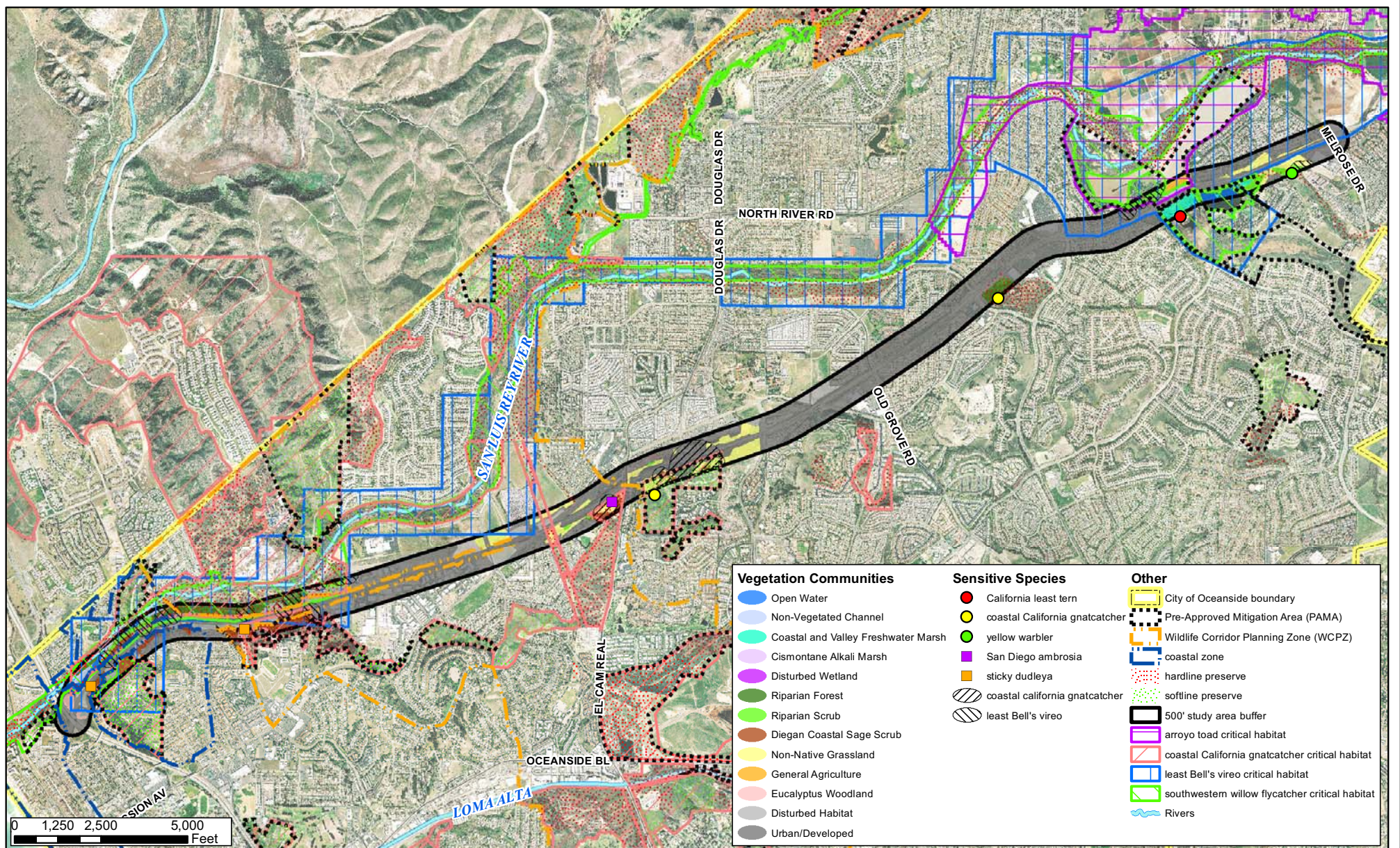
~~The City of Oceanside ranges in elevation from sea level to approximately 1,500 feet above mean sea level (amsl) (USGS 2005). Regionally important biological resources primarily occur along the San Luis Rey River and Pilgrim Creek, and to a lesser extent along Loma Alta Creek and scattered locations throughout the City (City 2009). Buena Vista Lagoon also borders the southwestern portion of the City boundary. Pilgrim Creek flows from MCB Camp Pendleton into the San Luis Rey River, which then flows westward towards the Pacific Ocean through the north portion of the City and is encompassed within the San Luis Rey River watershed (SanGIS 2003). Loma Alta Creek flows westward towards the Pacific Ocean through the southern portion of the City and is encompassed within the Carlsbad watershed. Portions of the BSA are also located within the California Coastal Zone boundary (Figures 2a, 2b, 2h, and 2i).~~

~~Underlying geology within the City of Oceanside is mapped predominantly as mudstone and sandstone, with tonalite and quartz diorite located in the northeastern portion of the City and alluvium and terrace located along the San Luis Rey River and coastline (USGS 2005). Soils mapped within the BSA include: Carlsbad urban land; made land; Bosanko, Diablo, and Salinas clay; Linne clay loam; Huerohuero loam; Marina coarse loamy sand; Corralitos loamy sand; Las Floras loamy fine sand; Cienega very rocky and coarse sandy loam; Bonsall, Fallbrook, Placentia, Ramona and Visalia sandy loam; Grangeville fine sandy loam; Chesterton fine sandy; Tujunga sand; steep gullied land; Guajome lake; Terrace escarpments; Loamy alluvial land; Riverwash; Buena Vista Lagoon; coastal beaches; and tidal flats (USDA NRCS 2007).~~



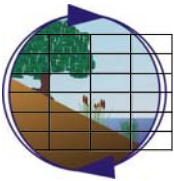
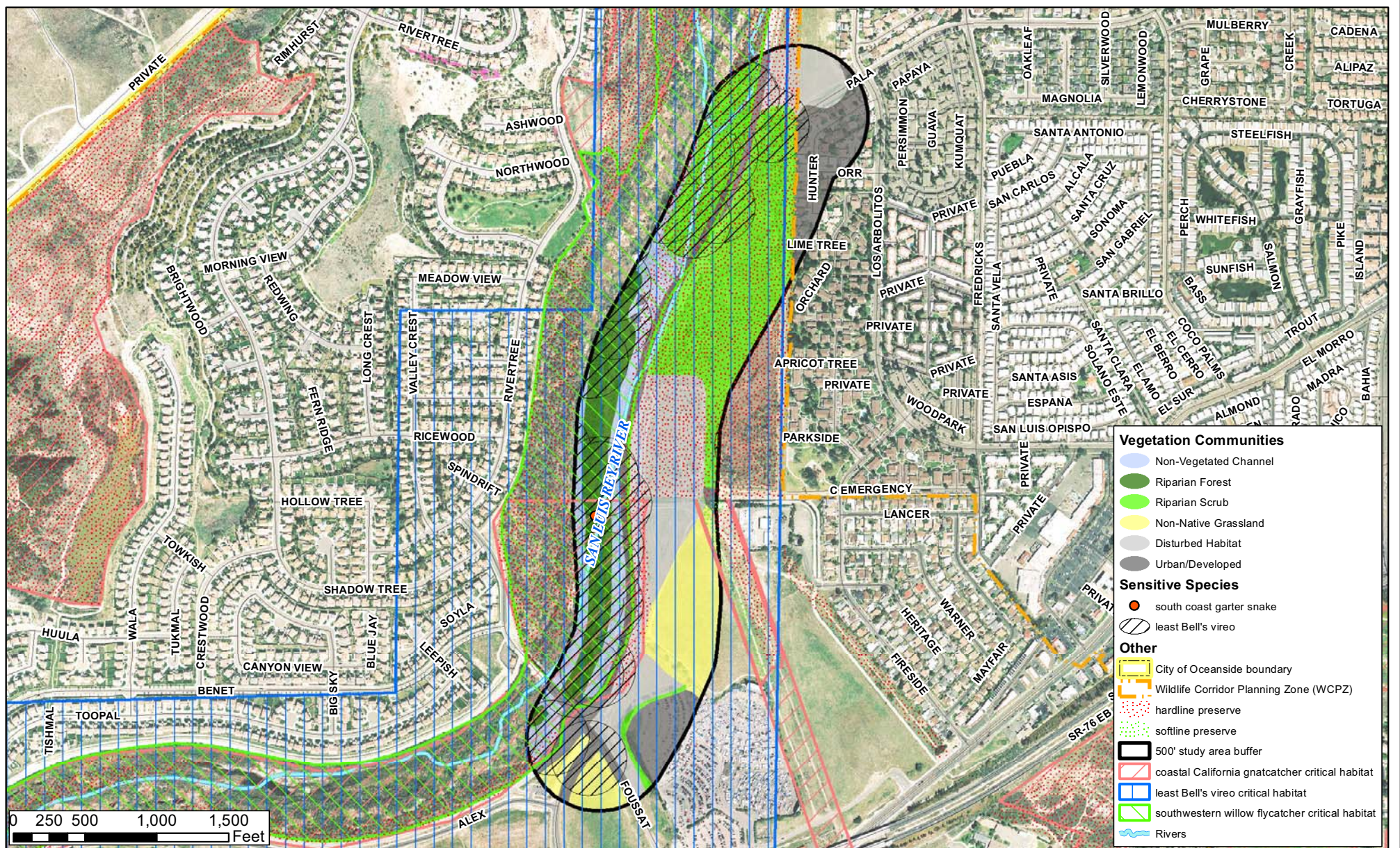
SR 78/I-5 Interchange (Caltrans improvements)
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2a



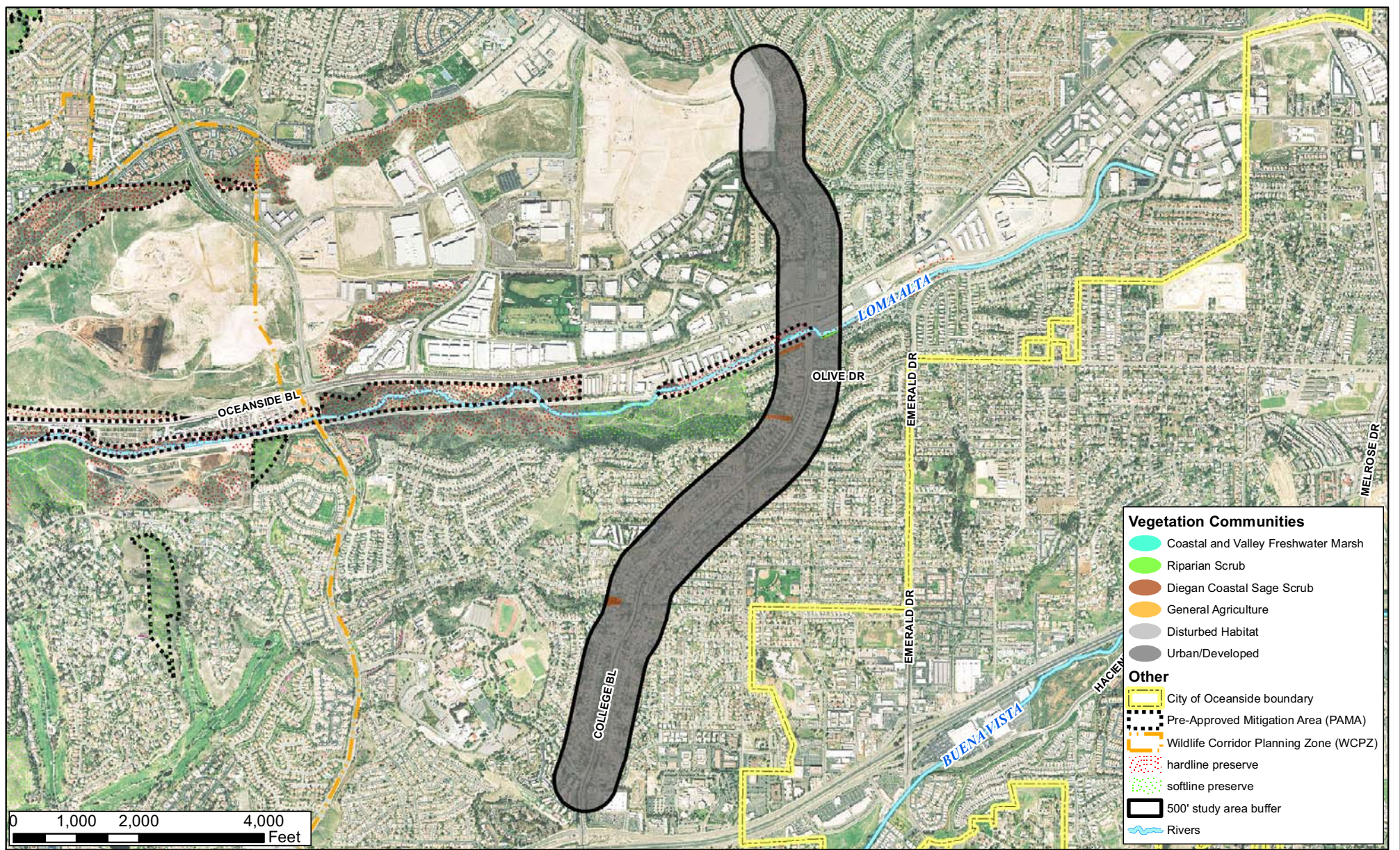
SR 76 Six Lanes
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2b



Pala Road Extension
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2c

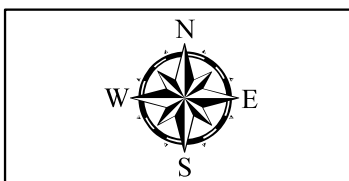
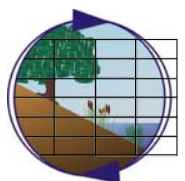


Vegetation Communities

- Coastal and Valley Freshwater Marsh
- Riparian Scrub
- Diegan Coastal Sage Scrub
- General Agriculture
- Disturbed Habitat
- Urban/Developed

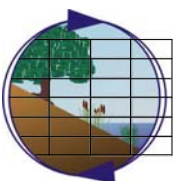
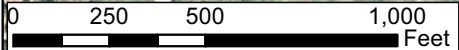
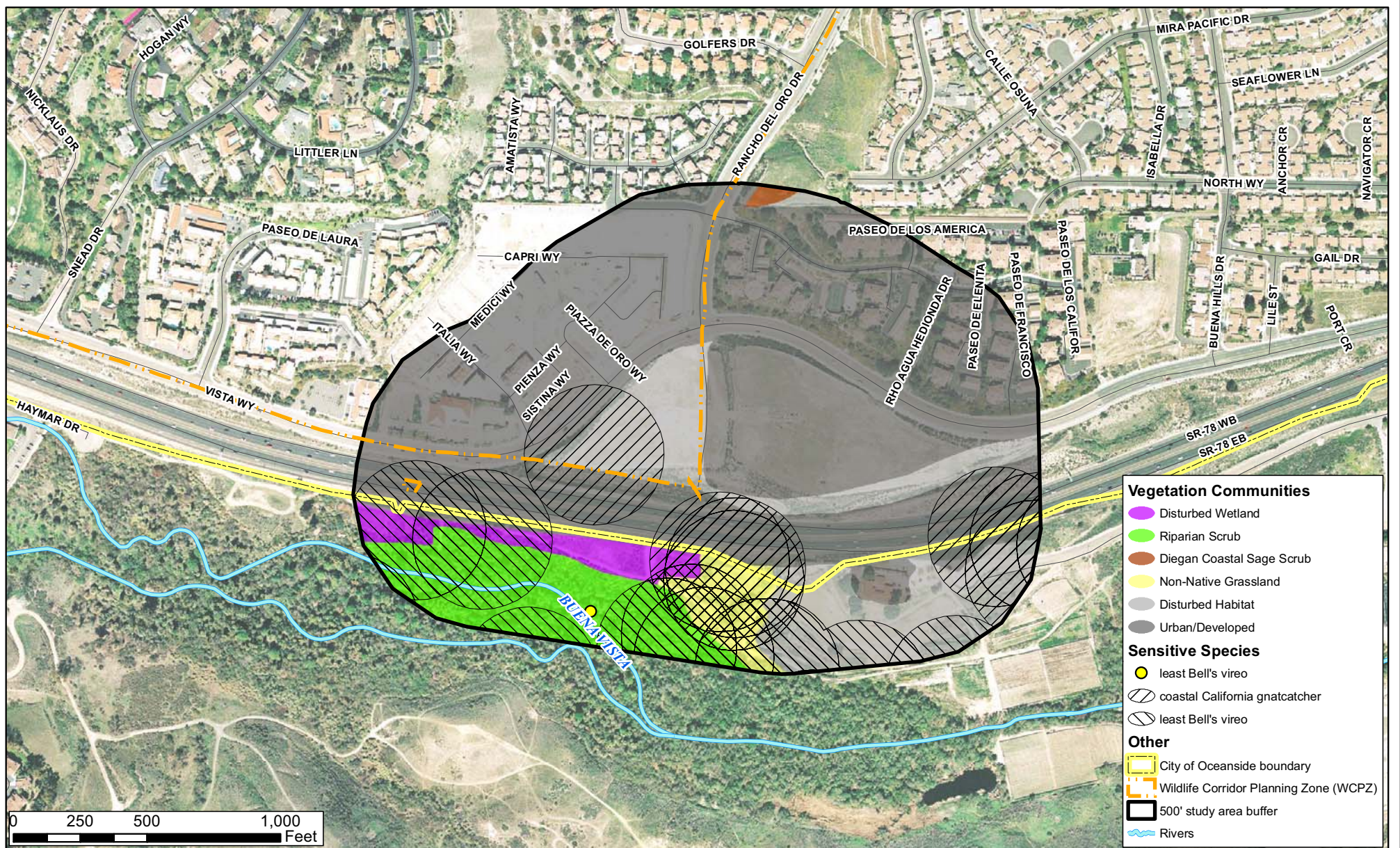
Other

- City of Oceanside boundary
- Pre-Approved Mitigation Area (PAMA)
- Wildlife Corridor Planning Zone (WCPZ)
- hardline preserve
- softline preserve
- 500' study area buffer
- ~ Rivers



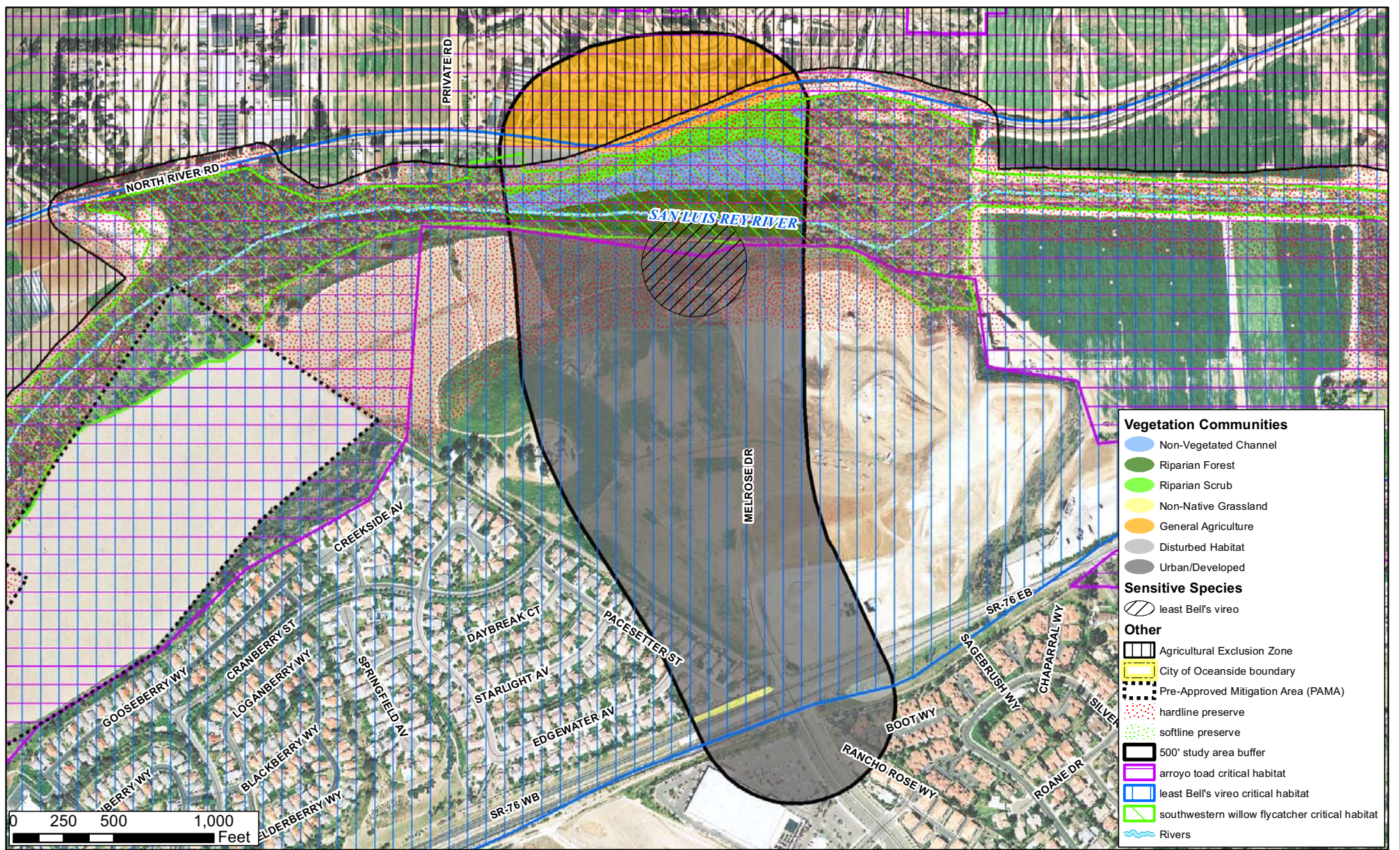
College Blvd Six Lanes
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2d

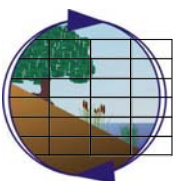


Rancho del Oro Interchange
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2e

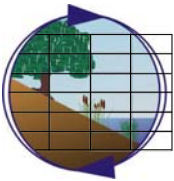
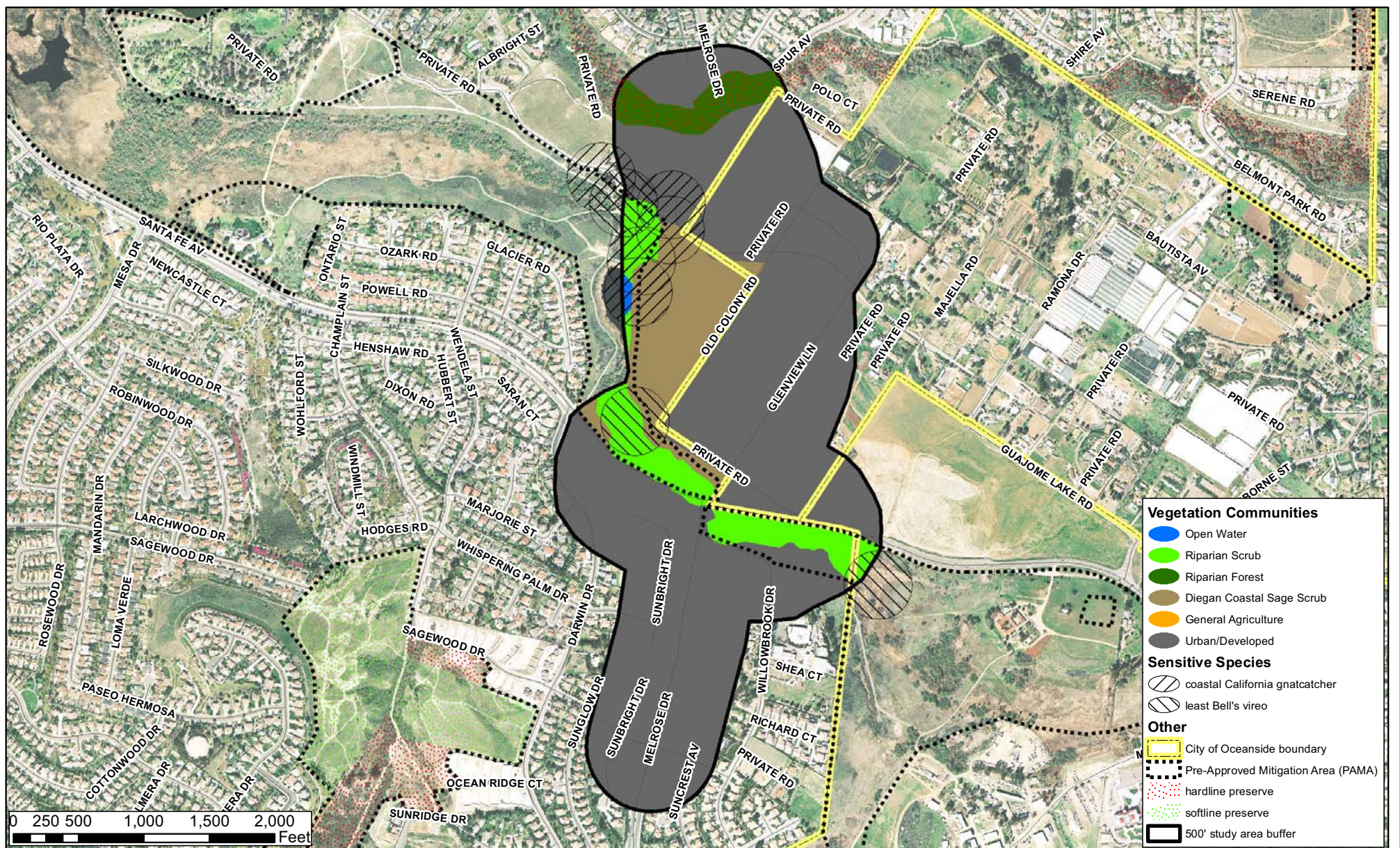


- Vegetation Communities**
- Non-Vegetated Channel
 - Riparian Forest
 - Riparian Scrub
 - Non-Native Grassland
 - General Agriculture
 - Disturbed Habitat
 - Urban/Developed
- Sensitive Species**
- least Bell's vireo
- Other**
- Agricultural Exclusion Zone
 - City of Oceanside boundary
 - Pre-Approved Mitigation Area (PAMA)
 - hardline preserve
 - softline preserve
 - 500' study area buffer
 - arroyo toad critical habitat
 - least Bell's vireo critical habitat
 - southwestern willow flycatcher critical habitat
 - Rivers



Melrose Drive North Extension
 City of Oceanside General Plan, Circulation Element Update PEIR

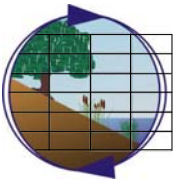
Figure 2f



Melrose Drive Southern Extension
 City of Oceanside General Plan, Circulation Element Update PEIR

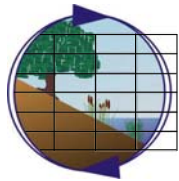
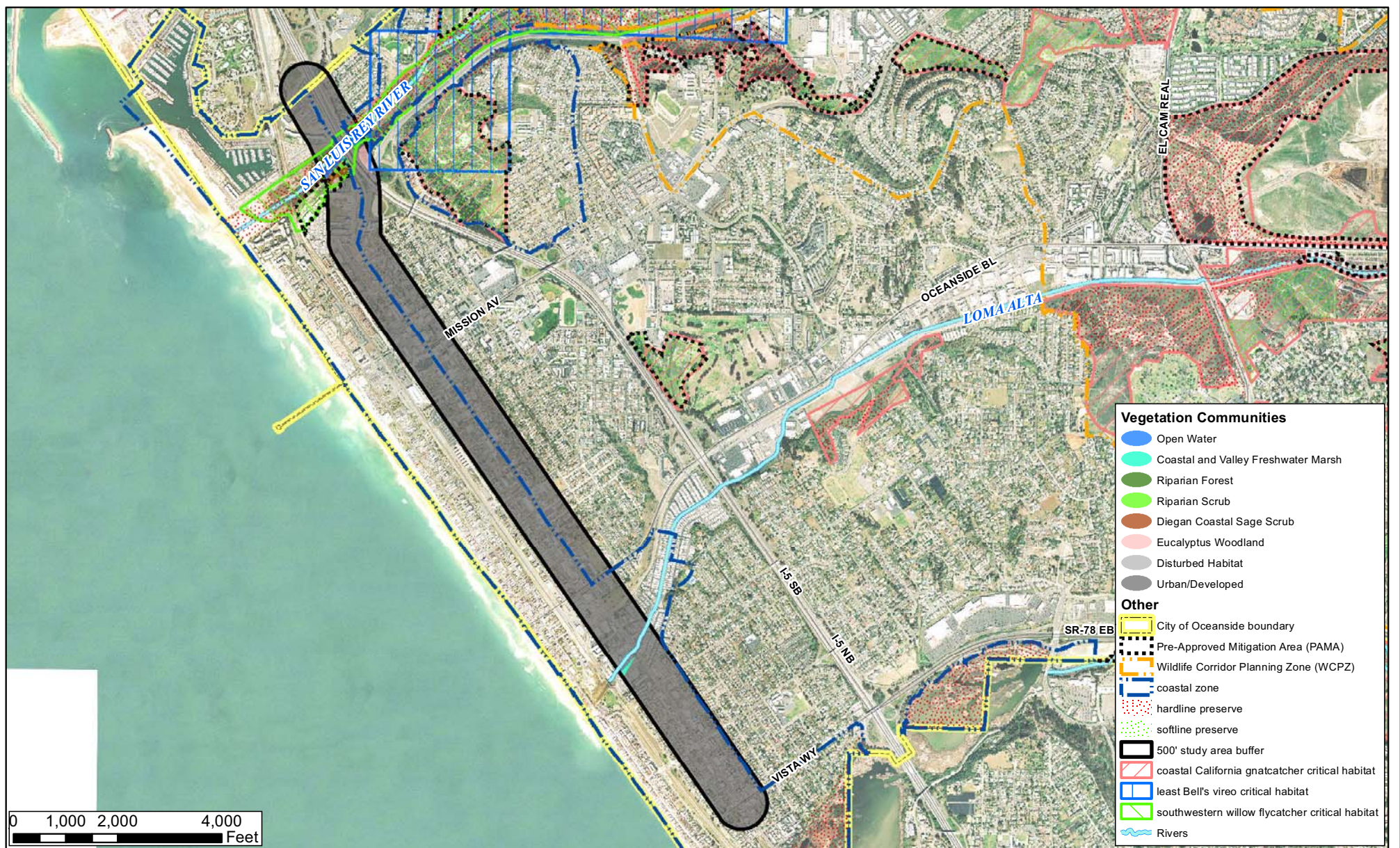
NOTE: More detailed project level mapping available on Figure 4.4-2 of the Melrose Drive Extension EIR

Figure 2g



Mission Ave. Four Lanes
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2h



Coast Highway Four Lanes
 City of Oceanside General Plan, Circulation Element Update PEIR

Figure 2i

The City of Oceanside ranges in elevation from sea level to approximately 1,500 feet above mean sea level (amsl) (USGS 2005). Regionally important biological resources primarily occur along the San Luis Rey River and Pilgrim Creek, and to a lesser extent along Loma Alta Creek and scattered locations throughout the City (City 2009). Buena Vista Lagoon also borders the southwestern portion of the City boundary. Pilgrim Creek flows from MCB Camp Pendleton into the San Luis Rey River, which then flows westward towards the Pacific Ocean through the north portion of the City and is encompassed within the San Luis Rey River watershed (SanGIS 2003). Loma Alta Creek flows westward towards the Pacific Ocean through the southern portion of the City and is encompassed within the Carlsbad watershed. Portions of the BSA are also located within the California Coastal Zone boundary (Figures 2a, 2b, 2h, and 2i).

Underlying geology within the City of Oceanside is mapped predominantly as mudstone and sandstone, with tonalite and quartz diorite located in the northeastern portion of the City and alluvium and terrace located along the San Luis Rey River and coastline (USGS 2005). Soils mapped within the BSA include: Carlsbad urban land; made land; Bosanko, Diablo, and Salinas clay; Linne clay loam; Huerohuero loam; Marina coarse loamy sand; Corralitos loamy sand; Las Floras loamy fine sand; Cieneba very rocky and coarse sandy loam; Bonsall, Fallbrook, Placentia, Ramona and Visalia sandy loam; Grangeville fine sandy loam; Chesterton fine sandy; Tujung sand; steep gullied land; Guajome lake; Terrace escarpments; Loamy alluvial land; Riverwash; Buena Vista Lagoon; coastal beaches; and tidal flats (USDA NRCS 2007).

Portions of the BSA are located within federally designated critical habitat for the arroyo toad (*Bufo californicus*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell’s vireo (*Vireo bellii pusillus*), and coastal California gnatcatcher (*Poliopitila californica californica*) (USFWS 2010b) (Table 2; see Figures 2b, 2c, 2f, and 2i).

Table 2. Federally Designated Critical Habitat within the BSA

Key Network Circulation Elements	Federally Designated Critical Habitat			
	arroyo toad (<i>Bufo californicus</i>)	southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	least Bell’s vireo (<i>Vireo bellii pusillus</i>)	coastal California gnatcatcher (<i>Poliopitila californica californica</i>)
SR 78/I-5 Interchange				
SR--76 six lanes		•	•	•
Pala Road Extension		•	•	•
College Boulevard				
RDO Interchange				
Melrose Drive Northern Extension	•	•	•	
Melrose Drive Southern Extension				

Mission Avenue				
Coast Highway		•	•	

The Melrose Drive Northern Extension circulation element is located within Unit 14 (Lower and Middle San Luis Rey River Basin) of federally designated critical habitat for the arroyo toad (USFWS 2005). This unit contains the physical and biological features that are essential to the conservation of the species, including aquatic habitat for breeding and non-breeding activities and upland habitat for foraging and dispersal activities, and may require special management considerations or protection to address threats from dams and water diversions, intensive urbanization, agriculture, and non-native predators and plants.

The eastern portion of the SR 76 circulation element, a portion of the Pala Road Extension, and the northern portion of both the Melrose Drive Northern Extension and Coast Highway circulation elements cross the San Diego Management Unit of federally designated critical habitat for the southwestern willow flycatcher (USFWS 2005). Within the San Diego Management Unit, the San Luis Rey and Santa Margarita Rivers, contain the largest numbers of flycatcher territories. These segments contain essential features for breeding, non-breeding, territorial, migrating, and dispersing southwestern willow flycatchers and help provide meta-population stability, population growth, gene flow, connectivity, and protection against catastrophic losses.

Both the western and eastern portions of the SR 76 circulation element cross Unit 6 (San Luis Rey River) of federally designated critical habitat for the least Bell’s vireo; in addition, both the Pala Road Extension and Melrose Drive Northern Extension circulation elements and a small portion of the BSA for the Coast Highway circulation element are located within this federally designated critical habitat unit (USFWS 1994). This unit includes areas that support feeding, nesting, roosting and sheltering of the least Bell’s vireo.

Portions of the BSA for the SR 76 and Pala Road Extension circulation elements extend into Unit 3 (North San Diego County MHCP) of federally designated critical habitat for the coastal California gnatcatcher (USFWS 2007). This unit includes areas that provide for foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchange, or sheltering for the coastal California gnatcatcher. This unit also contains the last significant coastal California gnatcatcher populations remaining south of MCB Camp Pendleton abutting the coast, and is essential to support more inland populations through emigration by providing connectivity between significant populations at MCB Camp Pendleton (adjacent to Unit 5), Multiple Species Conservation Program (MSCP) reserve areas in Unit 1, and populations in northern San Diego County (Unit 4).

3.2. Regional Vegetation Communities/Wildlife Habitats

Fourteen regional vegetation types were identified within the BSA (Table 3; see Figures 2a through 2i). The BSA contains limited floristic diversity due to the predominance of urban development within the region. The few remaining areas of native vegetation exhibit a high level of disturbance and incidence of non-native flora species. The areas of greatest floral resources are located within the less disturbed portions of the BSA, including areas along the San Luis Rey River and near the eastern limits of the City of Oceanside. The value of vegetation communities for wildlife is primarily dependent on both physical and biological factors, including locations to relative land uses, the quality of habitat within and adjacent to the region, and the uniqueness of the habitat within a regional context. The following text generally discusses the characteristics of the vegetation types

identified within the BSA as well as the associated floral resources and fauna species known or with a potential to occur.

CEQA Guidelines §15206 (b)(5) (Title 14, Chapter 3, Article 13) defines “sensitive wildlife habitats” as those “including but not limited to riparian lands, wetlands, bays, estuaries, and marshes and habitats for endangered, rare and threatened species as defined by §15380 (Chapter 3)”. The MHCP categorized vegetation communities occurring in northwestern San Diego County into Habitat Groups A through E, which include natural or naturalized vegetation communities in the region that provide habitat for a number of native and some sensitive species of plants and animals. These Habitat Groups are ranked in order of sensitivity from highest (Group A) to lowest (Group E); Group F includes lands that do not support natural vegetation. Each habitat type discussed below is classified according to the MHCP Habitat Group sensitivity classification system.

Table 3. Regional Vegetation Types within the BSA

Key Network Circulation Elements	Vegetation Communities (Holland/Oberbauer Code)												
	Wetland and Riparian/ MHCP Habitat Group A						Coastal Sage Scrub/ MHCP Habitat Group C	Annual Grasslands/ MHCP Habitat Group E	Other Lands/ MHCP Habitat Group F				
	Disturbed Wetland (11200)	Cismontane Alkali Marsh (52310)	Coastal and Valley Freshwater Marsh (52410)	Riparian Forest (61000)	Riparian Scrub (63000)	Open Water (64100)	Non-vegetated Channel (64200)	Diegan Coastal Sage Scrub (32500)	Non-native Grassland (42200)	Disturbed Habitat (11300)	Urban/Developed (12000)	General Agriculture (18000)	Eucalyptus Woodland (79100)
SR 78/I-5 Interchange			•			•				•	•		•
SR 76 six lanes		•	•	•	•	•	•	•		•	•	•	•
Pala Road Extension				•	•				•	•	•		
College Boulevard			•		•			•		•	•		
RDO Interchange	•							•		•	•		
Melrose Drive Northern Extension				•	•		•		•	•	•		
Melrose Drive Southern Extension				•	•	•		•			•		
Mission Avenue											•		
Coast Highway			•	•	•	•		•		•	•		•

3.2.1. Wetland/Riparian Habitats

Riparian habitats and wetlands are considered sensitive due to the value of these habitats for sensitive species and wildlife movement. Riparian ecosystems benefit a variety of species through their highly productive vegetation and their ability to buffer the effects of organic nutrients and toxins (Peck 1993). Habitat diversity typically influences wildlife abundance. Plant density, composition, age structure, and cover within and adjacent to riparian woodlands and forests affect habitat diversity, (which may be measured by the degree of vertical and horizontal habitat structure). Riparian woodlands and forests are composed of several vertical layers including canopy, shrub, herb, and ground. Woodland overstory provides valuable roosting, foraging, and breeding areas, while foraging birds and mammals utilize the understory. The trees themselves provide extensive foliage and bark surface for foraging, insectivorous birds. Although overall wildlife diversity is generally greater where vertical vegetation structure is well developed, species-specific occurrence can frequently be linked to the quality or presence of one component of the vertical structure. Riparian areas usually harbor greater wildlife diversity and abundance than upland areas, and frequently serve as wildlife corridors due to their linear nature and the cover they provide.

3.2.1.1. Disturbed Wetland

Habitat mapped as disturbed wetland includes areas permanently or periodically inundated by water, which have been significantly modified by human activity, such as portions of wetlands modified with man-made structures and with many non-native species. Characteristic weedy species include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), exotic palms (*Phoenix* spp. and *Washingtonia* spp.), and pampas grass (*Cortaderia* spp.). Native species such as various willows (*Salix* spp.) or cattails (*Typha* spp.) may also be present.

Faunal use varies from extremely limited use within dense, monotypic, large stands with little to no adjacent native habitat, to moderate use where the patches of disturbed wetland occur within a larger or more pristine riparian or wetland context. Disturbed wetland areas are known to support Pacific treefrog (*Pseudacris regilla*) and may provide foraging habitat for the two-striped gartersnake (*Thamnophis hammondi*) where water pools among the vegetation. While some bird species have been recorded nesting within disturbed wetlands, none are considered common occupants within this habitat. Mammalian use includes Virginia opossum (*Didelphis virginiana*), woodrats (*Neotoma* sp.), raccoon (*Procyon lotor psora*), and coyote (*Canis latrans clepticus*). Disturbed wetland does not provide the complexity and diversity of native habitat.

3.2.1.2. Cismontane Alkali Marsh

Cismontane alkali marsh typically has standing water or saturated soils for most of the year with low input of fresh water, creating a salty environment. Characteristic flora species include yerba mansa (*Anemopsis californica*), sedges, pickleweed (*Salicornia virginica*), salt grass (*Distichlis spicata*), and cattails.

3.2.1.3. Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh is generally dominated by perennial, emergent species with deep, peaty soils caused by periods of saturation with fresh water. Uniform stands of bulrushes, cattails, and other hollow-stemmed monocots characterize this habitat. Characteristic flora species include umbrella sedge (*Cyperus eragrostis*), various other sedges (*Carex* spp. and *Eleocharis* spp.), American tule (*Scirpus americanus*), and cattails.

Inundated freshwater marsh habitat supports western mosquitofish (*Gambusia affinis*) and crayfish (*Procambarus* sp.) and marsh vegetative structure supports Pacific treefrog and nesting birds. As a result, this habitat attracts opportunistic predators, predominantly raccoons. Birds species associated with open water are also found in association with freshwater marsh. In addition, marsh specific species, such as Virginia rail (*Rallus limicola*), sora (*Porzana Carolina*), marsh wren (*Cistothorus palustris*), common yellowthroat (*Geothlypis trichas*) and red-winged blackbird (*Agelaius phoeniceus*) are expected within significant freshwater marsh stands.

3.2.1.4. Riparian Forest

Both southern riparian forest and southern arroyo willow riparian forest are types of riparian forest located within the BSA. These habitats are similar to the riparian scrubs described below, but contain a more developed canopy dominated by species such as western sycamore (*Platanus racemosa*), cottonwoods (*Populus* spp.) and willows, including arroyo willow (*Salix lasiolepis*).

3.2.1.5. Riparian Scrub

Both southern willow scrub and southern riparian scrub are types of riparian scrub located within the BSA. These habitats consist of winter-deciduous thickets of riparian scrub dominated by arroyo willow, red willow (*Salix laevigata*), shiny willow (*Salix lucida* ssp. *lasiandra*), and narrow-leaf willow (*Salix exigua*), with limited understory development and scattered inclusions of emergent western cottonwoods (*Populus fremontii* ssp. *fremontii*) and California sycamores. These scrubs typically occur along narrow riparian channels with repeated flooding that prevents succession to southern cottonwood-sycamore riparian forest, and the limited understory is often readily degraded and invaded by non-native weedy species, such as tamarisk (*Tamarisk* sp.), giant reed (*Arundo donax*), and pampas grass (*Cortaderia selloana*).

Riparian scrub offers less structural diversity than riparian forest or woodland; so while it harbors many of the same species as these habitats, overall species abundance and diversity are lower. The Pacific treefrog, western toad (*Bufo boreas*) and garden slender salamander (*Batrachoseps major major*) are expected within willow scrub, as well as southern alligator lizard (*Elgaria multicarinata*), San Diego alligator lizard (*Elgaria multicarinata webbii*), and two-striped gartersnake. Birds species commonly associated with this habitat include Anna's hummingbird (*Calypte anna Calypte anna*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltriparus minimus*), yellow-rumped warbler (*Dendroica coronata*), song sparrow (*Melospiza melodia*), brown-headed cowbird (*Molothrus ater*), lesser goldfinch (*Spinus psaltria*), and American goldfinch (*Spinus tristis*). Mammals, including Virginia opossum, gray fox (*Urocyon cinereoargenteus californicus*), raccoon (*Procyon lotor psora*), striped skunk (*Mephitis mephitis holzneri*), spotted skunk (*Spilogale putorius phenax*), and domestic/feral cat (*Felis catus*) may hunt within southern willow scrub. Resident common mammals include house mouse (*Mus musculus*), western harvest mouse (*Reithrodontomys megalotis longicaudus*), and deer mouse (*Peromyscus maniculatus*).

3.2.1.6. Open Water

Both estuarine and freshwater habitats fall within the open water vegetation category in the BSA. This vegetation category primarily includes stream channels consisting of standing water adjacent to riparian and upland vegetation communities near bodies of water such as Guajome Lake and Buena Vista Lagoon. These areas are typically devoid of flowering flora, and vegetation consists of floating aquatic plants. Characteristic flora species include pondweed (*Potamogeton* sp.), duckweed (*Lemna*

sp.), pacific mosquitofern (*Azolla filiculoides*), common waternymph (*Najas guadalupensis*), and hornwort (*Ceratophyllum demersum*).

Common fish species expected within open water include the non-native mosquitofish, largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanellus*) and common carp (*Cyprinus carpio*), as well as crayfish (*Procambarus* sp.) within shallow open water.

The only common amphibians and reptiles directly associated with open water are the non-native bullfrog (*Rana catesbeiana*) and the two-striped gartersnake.

Common birds species include mallard (*Anas platyrhynchos*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), green heron (*Butorides virescens*), American coot (*Fulica Americana*), and various swallow species that forage above the open water.

The only mammal species consistently found in direct association with open water are bats including, but not limited to, Yuma myotis (*Myotis yumanensis saturatus*), western pipistrelle (*Pipistrellus hesperus*), big brown bat (*Eptesicus fuscus pallidus*), red bat (*Lasiurus borealis teliotis*), hoary bat (*Lasiurus cinereus cinereus*), Mexican free-tailed bat (*Tadarida brasiliensis mexicana*), big free-tailed bat (*Nyctinomops macrotis*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), and western mastiff bat (*Eumops perotis californicus*). Other species, such as raccoons, will frequent the edges of this habitat fishing and foraging for crayfish.

3.2.1.7. Non-vegetated Channel, Floodway, Lakeshore Fringe

This vegetation category encompasses portions of the BSA near the San Luis Rey River. Although this vegetation category is generally used to describe areas void of vegetation, this habitat is typically adjacent to wetlands, riparian scrubs, and riparian forests depending on soils and slopes.

3.2.2. Coastal Sage Scrub

Diegan coastal sage scrub is a low-lying, relatively open scrub with desert affinities, and is comprised of soft-woody, drought deciduous species that provide the majority of the vegetative cover. Characteristic flora species include California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), coyote brush (*Baccharis pilularis*), deerweed (*Lotus scoparius*), white sage (*Salvia apiana*), California encelia (*Encelia californica*), goldenbush (*Isocoma menziesii*), laurel sumac (*Malosma laurina*), foothill needlegrass, lemonadeberry (*Rhus integrifolia*), black sage (*Salvia mellifera*), San Diego monkeyflower (*Mimulus aurantiacus*), and California brickellbush (*Brickellia californica*).

Several locally common species of butterflies, reptiles, birds and small mammals are expected to occur within the sage scrub habitat present in the BSA. Butterfly species, such as the perplexing hairstreak (*Callophrys perplexa*), acmon blue (*Icaricia acmon*), Behr's metalmark (*Apodemia virgulti*) and funereal duskywing (*Erynnis funeralis*) utilize various host-specific sage scrub plants for larval development, as well as for adult nectar resources. Reptiles use rock crevices for cover within open sage scrub habitat, and feed on small insects and insect larvae among the leaf litter species; such species include the western fence lizard, side-blotched lizard, orange-throated whiptail (*Cnemidophorus hyperythrus*), southern alligator lizard, coachwhip (*Masticophis flagellum*), California striped racer, gopher snake (*Pituophis catenifer*) and California kingsnake. Sage scrub vegetation provides breeding habitat for numerous species of birds, including but not limited to, the California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), rufous hummingbird

(*Selasphorus rufus*), Anna's hummingbird, common raven (*Corvus corax*), wrenit (*Chamaea fasciata*), sage thrasher (*Oreoscoptes montanus*), California thrasher (*Toxostoma redivivum*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), western scrub-jay (*Aphelocoma californica*), bushtit, and spotted towhee (*Pipilo maculatus*). Small mammals, such as the California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*) and deer mouse also utilize sage scrub for cover and foraging.

3.2.3. Annual Grasslands

3.2.3.1. Non-native Grassland

This habitat type consists of annual non-native grasses and broad-leafed herbaceous species that comprise at least 30 and 50 percent of the total vegetative cover, respectively. Characteristic non-native species include bromes (*Bromus* spp.), filarees (*Erodium* spp.), and mustards (*Brassica* spp.).

Common herpetological species expected in grasslands include western toad, western fence lizard, side-blotched lizard, Coronado skink (*Eumeces skiltonianus interparietalis*), alligator lizards, California striped racer, San Diego gophersnake (*Pituophis catenifer annectens*), California kingsnake, Southern Pacific rattlesnake (*Crotalus viridis helleri*), as well as garden slender salamander and Pacific treefrog within moister areas.

Bird species most commonly detected within non-native grasslands include red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferous*), mourning dove, greater roadrunner (*Geococcyx californianus*), short-eared owl (*Asio flammeus*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), loggerhead shrike (*Lanius ludovicianus*), horned lark (*Eremophila alpestris*), white-crowned sparrow, blue grosbeak (*Passerina caerulea*), American goldfinch, lesser goldfinch, house finch, and western meadowlark (*Sturnella neglecta*).

Small mammals common to grasslands include the ornate shrew (*Sorex ornatus*), broad-footed mole (*Scapanus latimanus*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel, Botta's pocket gopher (*Thomomys bottae*), southern grasshopper mouse (*Onychomys torridus ramona*), California vole, house mouse, western harvest mouse, and deer mouse. Gray fox, coyote, striped and spotted skunk, and long-tailed weasel (*Mustela frenata*) are also commonly expected and bobcat may hunt along grassland riparian forest edges.

3.2.4. Other Lands

3.2.4.1. Disturbed Habitat

Areas mapped as disturbed habitat are typically located adjacent to urbanization and contain limited native vegetation with a mix of primarily weedy species including non-native herbs, annuals, and grasses found pioneering on the recently disturbed soils. Characteristic weedy species include prickly sow thistle (*Sonchus asper*), common sow thistle (*Sonchus oleraceus*), bristly ox tongue (*Picris echioides*), Russian thistle (*Salsola tragus*), giant reed, hottentot fig (*Carpobrotus edulis*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), smooth cat's ear (*Hypochoeris glabra*), red-stem filaree (*Erodium cicutarium*), short-beak filaree (*Erodium brachycarpum*) and white stem filaree (*Erodium moschatum*).

Use of disturbed habitat varies depending upon the level of disturbance and the size and location of the habitat. There are no common species typically associated with this habitat, but it may be used by common lizards, such as the western fence lizard or side-blotched lizard for basking, and birds such as killdeer or horned lark may even nest within disturbed habitat.

3.2.4.2. Urban/developed

The majority of the BSA is mapped as urban/developed land. These areas include commercial, industrial, office/professional, recreational and residential development, and contain numerous and varied horticultural plantings typically with no native vegetation.

While some wildlife species are more tolerant of development and human presence, few are commonly associated with it. Truly common urban wildlife is generally limited to rock pigeon (*Columba livia*), mourning dove, northern mockingbird, black phoebe, house finch, house sparrow, house mouse, and black rat (*Rattus rattus*).

3.2.4.3. General Agriculture

Areas mapped as general agriculture within the BSA include orchards and vineyards, intensive agriculture, extensive agriculture-field/pasture, and row crops. Orchards and vineyards consist of primarily woody crops such as citrus fruit or avocados, or non-woody crops such as grapes. These crops are typically grown on areas with steeper slopes, fertile soils, and irrigation access to nearby watercourses. Herbaceous understories may be planted or occur naturally but are open in density to facilitate with crop harvesting. Intensive and extensive agriculture includes land used as unoccupied field/pasture areas, rows of herbaceous crops, dairies, nurseries, and chicken ranches which are situated on relatively flat terrain where soils are suitable for agricultural planting and where nearby watercourses are present for irrigation access. Field/pasture areas contain remnant native and non-native weedy species and common herbaceous crops, such as barely, tomatoes, potatoes, and onions.

While amphibians and lizards are largely absent from agricultural lands, snakes such as the gopher snake may be found foraging along the edges.

Raptors utilize agricultural areas for hunting. Common raptors expected above agricultural lands include red-tailed hawk, northern harrier, white-tailed kite (*Elanus leucurus*), and great horned owl (*Bubo virginianus*). Passerines that can be seen opportunistically foraging within agricultural fields include brown-headed cowbird, horned lark, killdeer, red-winged blackbird, and Brewer's blackbird (*Euphagus cyanocephalus*).

The abundance of mammals within agricultural lands is dependant upon the type of agricultural operation but commonly includes deer mouse and desert cottontail.

3.2.4.4. Eucalyptus Woodland

This habitat type consists of tall exotic plantings of eucalyptus trees (*Eucalyptus* sp.) with limited understory growth. The eucalyptus trees range from scattered trees to well-developed woodlands located adjacent to native habitat or disturbed and urban/developed land.

While reptiles would be present in lower numbers in this habitat, a variety of common species, including western fence lizard, side-blotched lizard, Coronado skink, alligator lizards, California

striped racer, San Diego gophersnake, California kingsnake, and Southern Pacific rattlesnake may occur here.

Avian use of eucalyptus woodland is generally lower than avian use of oaks, sycamores, and cottonwoods, but these non-native trees do provide perching and nesting habitat for raptors, corvids, and some passerines. It is common to find Cooper's hawk (*Accipiter cooperii*), red-tailed hawk, and American crow nesting in eucalyptus woodland. White-tailed kite, sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk (*Buteo lineatus*), and American kestrel may be found perching on the edges or tops of the woodland. Species that may benefit from the lack of dense understory include insectivorous aerial foragers such as black phoebe, ash-throated flycatcher (*Myiarchus cinerascens*), Cassin's kingbird, and western kingbird. Additional common species that utilize this habitat type include mourning dove, great horned owl, Anna's hummingbird, Nuttall's woodpecker (*Picoides nuttallii*), northern flicker (*Colaptes auratus*), bushtit, Bewick's wren (*Thryomanes bewickii*), house wren, yellow-rumped warbler, lesser goldfinch, house finch, and Bullock's oriole (*Icterus bullockii*).

Eucalyptus woodland typically does not support the diversity and abundance of mammals that native woodlands do, possibly due to the limited understory; however, a variety of small mammals may be present, depending upon the size of the woodland and the nature of the adjacent habitats. Common small mammals known to utilize eucalyptus woodland include house mouse, deer mouse, brush mouse (*Peromyscus boylii rowleyi*), California vole, and woodrats. Common meso-predators that may utilize this habitat type on occasion include Virginia opossum, striped skunk, spotted skunk, and domestic/feral cat.

3.3. Special Status Species

~~Eight–Eleven~~ USFWS and/or CNDDDB special status species records have been previously documented within the BSA (Table 4; see Figures 2a through 2i) (CDFG 2010a and USFWS 2010a). These species are discussed in detail below, followed by Table 5, which indicates the potential for additional special status species to occur within the BSA based on the presence of potentially suitable habitat.

3.3.1. Special Status Flora

3.3.1.1. San Diego Ambrosia

San Diego ambrosia (*Ambrosia pumila*) is listed as federally endangered, and is designated as a Special Plant in the CNDDDB, as rare, threatened or endangered in California but more common elsewhere by the California Native Plant Society (CNPS) (List 1b), and as a Narrow Endemic and Covered Species under the MHCP (CDFG 2010d and AMEC 2003, respectively). This plant is a native, perennial, rhizomatous herb that prefers creeks beds, seasonally dry drainages, and floodplains (CNPS 2010 and Reiser 2001). This species typically grows on the periphery of willow woodland where the protective tree canopy is absent. It can be found at elevations from 20-450 meters (66-1,476 feet) and blooms from April to October. San Diego ambrosia ~~has a high potential to occur in suitable habitat was previously documented near the San Luis Ley River within the SR76 BSA~~ (see Figure 2b).

Table 4. USFWS/CNDDDB Special Status Species Records within the BSA

Key Network Circulation Elements	Special Status Species										
	San Diego Ambrosia (<i>Ambrosia pumila</i>)	Sticky Dudleya (<i>Dudleya viscida</i>)	<u>Small-flowered Morning Glory</u> (<i>Convolvulus simulans</i>)	<u>Southwestern Spiny Rush</u> (<i>Juncus acutus ssp. leopoldii</i>)	South Coast Garter Snake (<i>Thamnophis sirtalis tetrataenia</i>)	Coastal California Gnatcatcher (<i>Poliopitila californica</i>)	Light Footed Clapper Rail (<i>Rallus longirostris levipes</i>)	California Least Tern (<i>Sternula antillarum browni</i>)	Yellow Warbler (<i>Dendroica petechia brewsteri</i>)	<u>Yellow-breasted Chat</u> (<i>Icteria virens</i>)	Least bell;s Vireo (<i>Vireo bellii pusillus</i>)
SR 78/I-5 Interchange						•	•				
SR 76 six lanes	•	•				•		•	•		•
Pala Road Extension					•						•
College Boulevard											
RDO Interchange						•					•
Melrose Drive Northern Extension											•
Melrose Drive Southern Extension			•	•		•			•		•
Mission Avenue											
Coast Highway											

3.3.1.2. Sticky Dudleya

Sticky dudleya (*Dudleya viscida*) is designated as a Special Plant in the CNDDDB and as rare, threatened or endangered in California but more common elsewhere by the CNPS (List 1b) (CDFG 2010d). This plant is a native, succulent, perennial herb is conspicuous and grows predominantly on very steep north-facing slopes (CNPS 2010 and Reiser 2001). Preferring shade and mesic conditions, it is typically situated on exposed gabbroic rock, growing on very shallow soils or from cracks on vertical rock slabs. It can be found at elevations from 10-550 meters (33-1,805 feet) and blooms from May to June. Sticky dudleya was previously documented within the SR76 BSA ~~also has a high potential to occur in suitable habitat near the San Luis Ley River~~ (see Figure 2b).

3.3.1.3. Small-flowered morning glory

Small-flowered morning glory (*Convolvulus simulans*) is designated as a Special Plant in the CNDDDB and as Plants of Limited Distribution within California by the CNPS (List 4.2). Three small-flowered morning glory individuals were observed within the Melrose Southern Extension Project BSA during general biological and rare plant surveys, as specified in the final EIR for the Melrose Southern Extension Project (2010). This sensitive species is not covered under the MHCP and Draft Oceanside Subarea HCP and is not proposed to be covered under the North County MSCP.

3.3.1.4. Southwestern Spiny Rush

Southwestern spiny rush (*Juncus acutus ssp. leopoldii*) is designated as a Special Plant in the CNDDDB and as Plants of Limited Distribution within California by the CNPS (List 4.2). Two southwestern spiny rush individuals were observed within the Melrose Southern Extension Project BSA during general biological and rare plant surveys, as specified in the final EIR for the Melrose Southern Extension Project (2010). This sensitive species is not covered under the MHCP and Draft Oceanside Subarea HCP and is not proposed to be covered under the North County MSCP.

3.3.2. Special Status Fauna

3.3.2.1. South Coast Garter Snake

South Coast garter snake (*Thamnophis sirtalis*) is designated as a designated as a Special Animal in the CNDDDB and Species of Special Concern by the CDFG (CDFG 2009). This subspecies of garter snake is considered a wet-bellied snake that requires both marsh and upland near permanent water with good riparian buffer to survive (CDFG 2010b). South Coast garter snake was previously documented within the Pala Road BSA (see Figure 2c) and has a high potential to occur in suitable habitat within four other the BSA~~s~~ (see Figures 2a, 2b, 2e, and 2g).

3.3.2.2. Coastal California Gnatcatcher

Coastal California gnatcatcher is federally listed as threatened, and is designated as a Special Animal in the CNDDDB, as a Species of Special Concern by the CDFG, and as a Covered Species under the MHCP (CDFG 2009 and AMEC 2003, respectively). This small, blug grey songbird is a yearlong resident in coastal southern California (CDFG 2010b). It utilizes low, dense sage scrub habitat in arid washes, on mesas, and on slopes of coastal hills, generally below 500 meters (1,500 feet). Floral species of flat-top buckwheat, sagebrush, and patches of prickly pear (*Opuntia littoralis*) are

particularly favored. Nests are weaved from hemp-like fibers, leaves, plant down, and spider silk, in shrubs approximately 0.6-0.9 meters (2-3 feet) above ground, with breeding generally occurring in April and May. Coastal California gnatcatcher was previously documented within the SR 78/I-5 Interchange, SR 76, Rancho Del Oro, and Melrose Drive South Extension BSAs has a high potential to occur in suitable habitat within the BSA (see Figures 2a, 2b, 2e, and 2g).

3.3.2.3. Light Footed Clapper Rail

Light-footed clapper rail (*Rallus longirostris levipes*) is federally and stated listed as endangered, and is designated as a Special Animal in the CNDDDB, as a Fully Protected Species by the CDFG, and as a Covered Species under the MHCP (CDFG 2009 and AMEC 2003, respectively). This hen-sized, tan and grey bird inhabits tidal salt marshes that support a number of floral species including California cord grass (*Spartina foliosa*) (CDFG 2010b). Light-footed clapper rail was previously documented within the SR 78/I-5 Interchange BSA has a high potential to occur in suitable habitat near surrounding Buena Vista Lagoon (see Figure 2a).

3.3.2.4. California Least Tern

California least tern (*Sterna antillarum browni*) is federally and stated listed as endangered, and is designated as a Special Animal in the CNDDDB, as a Fully Protected Species by the CDFG, and as a Covered Species under the MHCP (CDFG 2009 and AMEC 2003, respectively). This very small tern has a black cap and black-tipped grey wings with a white body (CDFG 2010b). It passes through California during migration for breeding and stops at sandy ocean beaches, drying margins of lagoons, tidal mudflats and salt pond levees. This species breeds in loose colonies from April through September, with nesting starting around mid-May. The California least tern was previously documented within the SR 76 BSA (see Figure 2b). In addition, although not previously documented within the SR 78/I-5 Interchange BSA, the California least tern has a high potential to occur in suitable habitat near Buena Vista Lagoon and has also been documented near the San Luis Rey River (see Figure 2a**b**).

3.3.2.5. Yellow Warbler

Yellow warbler (*Dendroica petechia brewsteri*) is designated as a Special Animal in the CNDDDB and as a Species of Special Concern by the (CDFG CDFG 2009). The yellow warbler is more vibrantly yellow than any other warbler (CDFG 2010b). It is both a resident and a migrant to southern California, nesting primarily in riparian woodlands, especially those comprised of willows. Yellow warbler was previously documented within the Melrose Drive Southern Extension EIR study area (see Figure 4.4-2 of the Melrose Drive Extension EIR) and has a high potential to occur in suitable habitat near the San Luis Rey River (see Figure 2b).

3.3.2.6. Yellow Breasted Chat

The yellow-breasted chat (*Icteria virens*) is designated as a Special Animal in the CNDDDB and as a Species of Special Concern by the CDFG. The yellow-breasted chat nests primarily in riparian woodlands.

The yellow-breasted chat has a high potential to occur in suitable habitat near the San Luis Rey River. Specifically, this species was previously recorded within the Melrose Drive Southern Extension EIR study area (see Figure 4.4-2 of the Melrose Drive Extension EIR).

3.3.2.6.3.3.2.7. Least Bell's Vireo

Least Bell's vireo (*Vireo bellii pusillus*) is federally and stated listed as endangered, and is designated as a Special Animal in the CNDDDB and a Covered Species under the MHCP (CDFG 2009 and AMEC 2003, respectively). This small, non-descript vireo prefers to breed, nest and forage in moist woodlands, typically early successional riparian habitat (CDFG 2010b). Nests are suspended from forks in dense shrubs or small trees from April to July, with two broods often being attempted. Least Bell's vireo ~~was previously documented within several BSAs has a high potential to occur in suitable habitat predominately~~ near the San Luis Rey River and Buena Vista Creek (see Figures 2b, 2c, 2e, 2f, and 2g 2e). ~~as well as in more isolated suitable habitat elsewhere (see Figures 2f and 2g).~~

Table 5. Additional Special Status Species within a Potential to Occur within the BSA

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
Plants			
California adolphia (<i>Adolphia californica</i>)	Generally occurs on clay soils, in dry canyons and washes, in chaparral below 300 m (984 ft) in elevation.	CNDDDB: SP CNPS List: 2	<u>Low potential</u> ; Near the northern periphery of the species' range, limited amount of suitable (clay) soils within the BSA.
Palmer's sagebrush (<i>Artemisia palmeri</i>)	Occurs in coastal sage scrub below 600 m (1,969 ft) in elevation.	CNDDDB: SP CNPS List: 4	<u>High potential</u> ; This species is known to near the BSA.
thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	Generally occurs in heavy clay soils in natural grasslands or vernal pools below 1,200 m (3,937 ft) in elevation.	ESA: FT CESA: SE CNDDDB: SP CNPS List: 1B MHCP: NE	<u>Low potential</u> ; Limited amount of suitable habitat (clay soils and vernal moist areas) within BSA.
orcutt's brodiaea (<i>Brodiaea orcuttii</i>)	Occurs in chaparral, woodlands, meadows and seeps, valley and foothill grasslands, and vernal pools in clay below 1,615 m (5,298 ft) in elevation.	CNDDDB: SP CNPS List: 1B	<u>Low potential</u> ; Limited amount of suitable habitat (clay soils and vernal moist areas), found within BSA.
seaside calandrinia (<i>Calandrinia maritima</i>)	Occurs in coastal bluff scrub, coastal scrub, valley and foothill grassland/sandy; from 5-300 m (16-984 ft) in elevation.	CNDDDB: SP CNPS List: 4	<u>Low potential</u> ; May occur within sandy openings in suitable sage scrub of the BSA.
Blochman's dudleya (<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>)	Occurs in coastal bluff scrub, chaparral, and coastal scrub often in rocky, clay, or serpentine soils below 450 m (1,476 ft) in elevation.	CNDDDB: SP CNPS List: 1B	<u>Moderate potential</u> ; May occur in sandy loam soils.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
many-stemmed dudleya (<i>Dudleya multicaulis</i>)	Occurs in chaparral, coastal scrub, and valley and foothill grasslands in clay soils below 790 m (2,592 ft) in elevation.	CNDDDB: SP CNPS List: 1B	<u>Low potential;</u> Near the southern end of species' range, suitable soils (Huerhuero loams) within the BSA.
Palmer's grappling hook (<i>Harpagonella palmeri</i>)	Occurs on clay slopes and burns below 1,000 m (3,281 ft) in elevation.	CNDDDB: SP CNPS List: 4d	<u>Low potential;</u> Limited amount of clay soils in BSA.
San Diego marsh elder (<i>Iva hayesiana</i>)	Marshes and swamps, playas; elevation 10-500 m (34-1,641 ft). Perennial herb, blooms April-September.	CNDDDB: SP CNPS List: 2 MHCP: CS	<u>High potential;</u> This species is known to occur near the BSA.
southwestern spiny rush (<i>Juncus acutus ssp. leopoldii</i>)	Associated with moist, saline, or alkaline soils in coastal, foothill, and desert areas. This species is found in drainages and wetland areas below 900 m (2,953 ft) in elevation.	CNDDDB: SP CNPS List: 1B	<u>High potential;</u> This relatively common, sensitive species known to occur near the BSA.
<u>E</u> ngelmann oak (<i>Quercus engelmannii</i>)	Occurs inland in oak woodlands and chaparral on dry fans and foothills below 12,000 m (39,372 ft).	CNDDDB: SP CNPS List: 4	<u>High potential;</u> This species is known to occur near the BSA.
San Diego County viguiera (<i>Viguiera laciniata</i>)	Occurs within chaparral, coastal scrub; elevation 60-750 m (197-2,461 ft).	CNDDDB: SP CNPS List: 4	<u>Low potential;</u> Suitable habitat (sage scrub) within the BSA, but near the periphery of the species' northern range.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
<i>Invertebrates</i>			
monarch butterfly (<i>Danaus plexippus</i>)	Roosts are located in wind-protected tree groves [eucalyptus, Monterey pine (<i>Pinus radiata</i>) and cypress (<i>Cupressus spp.</i>)], with nectar and water sources nearby.	CNDDDB: SA	<u>High potential</u> ; May occur in suitable habitat within the BSA in low numbers; no roosts reported.
<i>Amphibians</i>			
arroyo toad (<i>Bufo californicus</i>)	Shallow pools, open sand, and gravel flood terraces of intermittent to perennial streams; may also occupy adjacent upland communities within 1.2 km (0.8 mi) of the river.	ESA: FE CNDDDB: SA DFG: SSC	<u>Moderate potential</u> ; Known to occur near the BSA.
western spadefoot (<i>Spea hammondi</i>)	Prefers sandy or gravelly soil in grasslands, sage scrub, open chaparral, and pine-oak woodlands; grasslands with shallow temporary pools are optimal.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near the BSA.
<i>Reptiles</i>			
orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	Sage scrub (and chaparral); prefers sandy areas with patches of brush and rocks; may be associated with buckwheat (<i>Eriogonum spp.</i>) and black sage.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near BSA.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
Southern Pacific pond turtle (<i>Emmys marmorata pallida</i>)	Permanent or nearly permanent bodies of water below 183 m (600 ft). Require basking sites such as partially submerged logs, vegetation mats or open mud banks.	CNDDDB: SA DFG: SSC MHCP: CS	<u>Moderate potential</u> ; Species has been recorded from the lower reaches of the SLR River.
San Diego horned lizard (<i>Phrynosoma coronatum blainvillii</i>)	Chaparral, sage scrub, oak woodlands, and grasslands; sometimes occurs along seldom used dirt roads where native ant species are prevalent.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Although much of the mesic environments are dominated by non-native ant species, suitable habitat persists and the horned lizard likely occurs in native uplands.
Coronado skink (<i>Eumeces skiltonianus interparietalis</i>)	Variety of habitats including grasslands, sage scrub, and various woodlands including oak, pine, juniper, and riparian.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Likely to be present within grasslands, sage scrub, and woodlands.
coastal western whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	Coastal sage scrub, chaparral, and grasslands.	CNDDDB: SA	<u>High potential</u> ; Known to occur near BSA.
silvery legless lizard (<i>Anniella pulchra pulchra</i>)	Shows a preference for areas of leaf litter and loose soil along washes, beach sand dunes, open scrub and woodland, and sandy benches along alluvial fans.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Could occur within sandy soil alluvial areas.
San Diego ringneck snake (<i>Diadophis punctatus similis</i>)	Chaparral, forest, and grasslands, most common in moist, rocky areas.	CNDDDB: SA	<u>High potential</u> ; Could occur in well-shaded areas with mesic soils and leaf litter.
coast patch-nosed snake (<i>Salvadora hexalepis virgultea</i>)	Chaparral and sage scrub; may require mammal burrows or woodrat nests for overwintering.	CNDDDB: SA	<u>Moderate potential</u> ; Could occur within upland habitats, although not in high numbers.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
two-striped garter snake (<i>Thamnophis hammondi</i>)	Associated with semi-permanent and permanent bodies of water in a variety of habitats; requires a relatively dense riparian border.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Presence of good quality habitat within the BSA.
South Coast garter snake (<i>Thamnophis sirtalis ssp</i>)	Marsh and uplands near permanent water with good riparian buffer.	CNDDDB: SA DFG: SSC	<u>Moderate potential</u>; Known to occur near BSA.
Birds			
Cooper’s hawk (<i>Accipiter cooperii</i>)	Oak, riparian deciduous or other woodland habitats, usually near water.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near the BSA.
sharp-shinned hawk (<i>Accipiter striatus</i>)	Mixed woodlands near open areas, but prefers but not restricted to riparian habitats.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near BSA during migration and may over-winter, but not expected or known to breed within the area.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	Rocky hillsides supporting sparse, low scrub or chaparral, sometimes mixed with grasses.	CNDDDB: SA DFG: SSC MHCP: CS	<u>High potential</u> ; Known to occur near the BSA.
tricolored blackbird (<i>Agelaius tricolor</i>)	Feeds in grasslands and croplands, breeds near freshwater, preferably in marshes or other emergent wetlands.	CNDDDB: SA DFG: SSC	<u>Moderate potential</u> ; Potentially suitable habitat within BSA.
great blue heron (<i>Ardea herodias</i>)	Rookeries located in tall trees near water.	CNDDDB: SA	<u>Low potential to breed</u> ; Likely uses portions of the BSA for foraging, but not expected to breed.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
Lawrence’s goldfinch (<i>Carduelis lawrencei</i>)	Valley foothill hardwood or hardwood-conifer, and in southern California, desert riparian, palm oasis, pinyon-juniper, and lower montane areas.	CNDDDB: SA	<u>Moderate potential</u> ; Known to occur near the BSA.
San Diego cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>)	Cactus thickets in areas dominated by California sagebrush and California buckwheat. Nests in tall cholla (<i>Cylindropuntia proliferata</i>) and prickly-pear.	CNDDDB: SA DFG: SSC MHCP: NE MHCP: CSe	<u>Low potential</u> ; Limited suitable habitat and lack of known breeding in the area.
northern harrier (<i>Circus cyaneus</i>)	Occurs in grassland, agricultural fields, fresh and saltwater marshes, and desert sinks.	CNDDDB: SA DFG: SSC	<u>Moderate potential</u> ; Known to occur near the BSA.
white-tailed kite (<i>Elanus leucurus majusculus</i>)	Grasslands, agricultural fields, and open habitats with areas of dense deciduous trees for nesting.	CNDDDB: SA DFG: FP	<u>High potential</u> ; Known to occur near the BSA.
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Riparian woodland.	ESA: FE CNDDDB: SA	<u>High potential</u> ; Known to occur near the BSA.
California horned lark (<i>Eremophila alpestris actia</i>)	Grasslands, disturbed areas, and open habitats with sparse, low vegetation.	CNDDDB: SA DFG: SSC	<u>High potential for foraging</u> ; High potential for species to forage in agricultural or disturbed lands, but low potential of breeding occurrence.
yellow-breasted chat (<i>Icteria virens</i>)	Riparian woodland/scrub with dense undergrowth.	CNDDDB: SA DFG: SSC	<u>High potential</u>; Known to occur in riparian forest associated with the San Luis Rey River.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
loggerhead shrike (<i>Lanius ludovicianus</i>)	Found within grassland or open habitats with bare ground and sparse shrub and/or tree cover for nesting and perching.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near the BSA.
Nuttall’s woodpecker (<i>Picoides nuttallii</i>)	Permanent resident of low-elevation, riparian deciduous and oak habitats.	CNDDDB: SA	<u>High potential</u> ; Potentially suitable habitat.
white-faced ibis (<i>Plegadis chihi</i>)	Freshwater ponds, rivers, irrigated fields and brackish lagoons.	CNDDDB: SA DFG: SSC	<u>High potential</u> ; Known to occur near the BSA.
vermillion flycatcher (<i>Pyrocephalus rubinus</i>)	Desert riparian habitat, as well as agriculture areas and parks near ponds or rivers.	CNDDDB: SA DFG: SSC	<u>Low potential</u> ; Low potential to occur due to species rarity and poor representation of preferred habitat in the BSA.
California thrasher (<i>Toxostoma redivivum</i>)	Moderate to dense montane chaparral up to 2012 m (6,600 ft) and occasionally in extensive thickets in young or open valley foothill, riparian habitat.	CNDDDB: SA	<u>High potential</u> ; Known to occur near the BSA.
Mammals			
(Western) red bat (<i>Lasiurus blossevillii</i>)	Occurs in coastal lowlands and roosts in large shrubs and fruit trees.	CNDDDB: SA	<u>Moderate potential</u> ; Known to occur in northern San Diego County and presence of suitable habitat.
small-footed myotis (<i>Myotis ciliolabrum</i>)	Uses a variety of habitats, prefers open stands in forests/woodlands, brushy habitats, and riparian areas.	CNDDDB: SA	<u>Moderate potential</u> ; Known to occur in northern San Diego County and presence of suitable habitat.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
long-eared myotis (<i>Myotis evotis</i>)	Prefers multiple habitats for roosting (mainly crevices), forages in oak/coniferous forests, may require water.	CNDDDB: SA	<u>Moderate potential</u> ; Known to occur in northern San Diego County and presence of suitable habitat.
yuma myotis (<i>Myotis yumanensis</i>)	Prefers multiple habitats (primarily woodlands and forests), but forages over water.	CNDDDB: SA	<u>Moderate potential</u> ; Known to occur in northern San Diego County and presence of suitable habitat.
western mastiff bat (<i>Eumops perotis</i>)	Extensive open areas with abundant roost locations in rock outcrops (found where oaks and chaparral occur).	CNDDDB: SA DFG: SSC	<u>Moderate potential for foraging</u> ; No likely roosting locations within the BSA.
pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	Cliff rooster, feeds in multiple habitats.	CNDDDB: SA DFG: SSC	<u>Moderate potential for foraging</u> ; Known to occur in northern San Diego County and presence of suitable habitat; roosting not expected.
big free-tailed bat (<i>Nyctinomops macrotis</i>)	Cliff rooster, prefers rugged, rocky canyons, feeds in multiple habitats, including over water.	CNDDDB: SA DFG: SSC	<u>Moderate potential for foraging</u> ; Known to occur in northern San Diego County and presence of suitable habitat; roosting not expected.
Dulzura (California) pocket mouse (<i>Chaetodipus californicus femoralis</i>)	Found in areas with fine sandy substrate, (chaparral/coastal sage scrub).	CNDDDB: SA DFG: SSC	<u>Low potential</u> ; Based on limited availability of appropriate habitat.
northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	Occurs in coastal sage scrub.	CNDDDB: SA DFG: SSC MHCP: CS	<u>Moderate potential</u> ; Based on the presence of species within the region and sage scrub within the BSA.

Species ¹	Suitable Habitat ²	Status ³	Occurrence Potential within BSA
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	Areas of sparse vegetation primarily grasslands, but may occur in sage scrub or disturbed areas.	ESA: FE CESA: ST CNDDDB: SA MHCP: CS	<u>Low Potential</u> ; Some potentially suitable, but low quality, fragmented habitat occurs within the BSA.
southern grasshopper mouse (<i>Onychomys torridus ramona</i>)	Variety of habitats, including grasslands, sage scrub and chaparral, where friable soils occur.	CNDDDB: SA DFG: SSC	<u>Low to moderate potential</u> ; Habitat present, populations highly localized and not well understood.

¹*Scientific Nomenclature*: flora, Rebman and Simpson (2006); butterflies, Klein and San Diego Natural History Museum (2002); amphibians and reptiles, Crother et al. (2001 and 2003); birds, American Ornithologists' Union (1998 and 2007); and mammals, San Diego Natural History Museum/(species level) Wilson and Reeder (1993) and (sub-species level) Hall (1981).

²*References for Habitat Preferences/Requirements*: (plants) Reiser 2001 and CNPS 2007; (butterflies) Faulkner and Klein 2004, Opler 2006; (amphibians and reptiles) Stebbins 2003, CDFG 2005; (birds and mammals) CDFG 2005.

³*Sensitivity Codes and Status* (AMEC 2003, CDFG 2006 and 2007, County 1997 and 2006, Ogden et al. 1998)

Endangered Species Act (ESA) Listing Codes: FE = Federally-listed as Endangered; FT = Federally-listed as Threatened; FPE = Federally proposed for listing as Endangered; FPT = Federally proposed for listing as Threatened; FPD = Federally proposed for delisting; FC = Federal candidate species (former Category 1 candidates); SC = Species of concern (list established by the National Marine Fisheries Service [NMFS] effective April 15, 2004); Delisted species are monitored for 5 years.

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

California Department of Fish and Game (DFG) Sensitivity Codes: CSC = California special concern species; FP = California fully protected species; SR = State-listed rare

California Native Plant Society (CNPS) Sensitivity Codes: List of Species Designation: 1A = Plants presumed extinct in California; 1B = Plants rare, threatened, or endangered in California and elsewhere; 2 = Plants rare, threatened, or endangered in California, but more common elsewhere; 3 = Plants about which more information is needed (a review list); 4 = Plants of limited distribution (a watch list).

California Natural Diversity Database (CNDDDB) Sensitivity Codes: Special Plants (SP)/Special Animals (SA) = A general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status; these taxa fall into one of the above categories and/or one or more of the following categories: 1) Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines; 2) A Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), or U.S. Forest Service (USFS) Sensitive Species; 3) Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring, but not currently threatened with extirpation; 4) Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California; 5) Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.); and 6) Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO) (e.g., The World Conservation Union [IUCN], American Fisheries Society [AFS], Audubon Watch List; California Department of Forestry and Fire Protection [CDF], U.S. Department of Agriculture [USDA] Forest Service [FS], Fish and Wildlife Service Birds of Conservation Concern [FWS BCC], The American Bird Conservancy Green List [ABC Green List], The U.S. Bird Conservation [USBC] Watch List, The Western Bat Working Group [WBWG], and The Xerces Society).

Multiple Habitat Conservation Program (MHCP) Status: Narrow Endemic = NE; Covered Species = CS.

3.4. Wildlife Movement and Nursery Sites

Although much of the City of Oceanside is urbanized with fragmented natural habitats, some undeveloped areas play an important role in regional habitat connectivity and species conservation (City 2009). Many of these remaining undeveloped areas consist primarily of riparian corridors that typically may serve as wildlife corridors. Potential wildlife corridors that occur within the project BSA include riparian corridors such as San Luis Rey River/tributaries, Loma Alta Creek, and Buena Vista Creek/Lagoon. These riparian corridors/potential wildlife corridors occur within and/or adjacent to portions of the BSA along the SR 78/I-5 Interchange, SR 76, the Pala Road Extension, College Boulevard, the Rancho Del Oro Interchange, Melrose Drive Northern and Southern Extensions, and Coast Highway circulation network elements (see Figures 2a, 2b, 2c, 2d, 2e, 2f, 2g, and 2i).

The San Luis Rey River corridor connects the extensive open space of Camp Pendleton to the north and National Forest lands to the east to the Pacific Ocean. Within this region, a significant amount of development, as well as extensive agriculture, encroaches into the drainage; a pattern that continues to the west, and is less prevalent to the east, constricting and constraining but not severing the corridor. The San Luis Rey River wetlands not only provide biological value as habitat for resident species, but also allow for migration, genetic exchange, and general movement of both common and sensitive wildlife (and arguably the transport of floral seeds or other genetic material). High quality, native upland habitat, particularly sage scrub, which persists along the BSA, also contributes to the width and habitat constituent diversity of the corridor. Based on the habitats contained within the San Luis Rey River corridor and its connectivity to the east, in conjunction with previous records of sensitive species (e.g., least Bell's vireo, yellow warbler, south coast garter snake), the corridor is considered a regional corridor for meso-predators, coyotes, bobcats, and possibly mountain lions (*Felis concolor*). Locally, the wildlife corridor supports the small range movements of invertebrates, herpetological species, birds, and small, meso, and larger mammals (coyote and bobcat). These local connections may be critical to the continued presence of a diversity of species within the smaller adjacent canyon and preserve lands.

The Loma Alta Creek corridor is highly constrained by surrounding urban development. Based on the remaining habitats contained within the Loma Alta Creek corridor, its constrained/discontinuous connectivity to the eastern portions of Oceanside, in conjunction with previous records of sensitive species (e.g., least Bell's vireo, coastal California gnatcatcher), the corridor potentially serves as a local corridor for invertebrates, herpetological species, birds, meso-predators and potentially coyotes.

The Buena Creek corridor is another highly constrained corridor surrounded by urban development that extends through the Cities of Vista, Carlsbad, and Oceanside where it empties into the Buena Vista Lagoon. Based on the remaining habitats contained within the Buena Creek/Lagoon corridor, its constrained/discontinuous connectivity to the east, in conjunction with previous records of sensitive species (e.g., least Bell's vireo, coastal California gnatcatcher), the corridor potentially serves as a local corridor for invertebrates, herpetological species, birds, meso-predators and potentially coyotes.

The City's current draft MHCP Subarea Plan/NCCP Plan (2009) also identifies the Wildlife Corridor Planning Zone (WCPZ), which encompasses habitat parcels that potentially contribute to the north-south, regional gnatcatcher stepping-stone corridor despite the extent of urban development throughout this zone. The northern extent of this zone, located north of the San Luis Rey River, extends east along the MCB Camp Pendleton border to Vandergrift Boulevard, encompassing the Whelan Ranch and Pilgrim Creek Conservation Banks, and then south from MCB Camp Pendleton to Buena Vista Creek, varying in width from one to two miles. The WCPZ encompasses portions of the BSA along SR 76, the Pala Road Extension, and the Rancho Del Oro Interchange circulation network elements (see Figures 2b, 2c, and 2e).

The City's current draft MHCP Subarea Plan/NCCP Plan (2009) further designates "softline" and "hardline" Preserves, which are inclusive of PAMAs, conservation banks, or naturally vegetated lands targeted for conservation. Since these lands (may or may not overlap with riparian corridors and/or the WCPZ) are known to support biological resources or are important to preserve design, and are already conserved or are targeted to be wholly or partially conserved, they may also serve as potential wildlife corridors, linkages, and/or important nursery sites. Preserve areas encompass portions of the BSA along SR 78/I-5 Interchange, SR 76, the Pala Road Extension, College Boulevard, Melrose Drive Northern and Southern Extensions, and Coast Highway circulation network elements (see Figures 2a, 2b, 2c, 2d, 2f, 2g, and 2i).

Although much of the City of Oceanside is urbanized with fragmented natural habitats, some undeveloped areas play an important role in regional habitat connectivity and species conservation (City 2009).

A portion of the BSA (see Figure 2b) lies adjacent to the San Luis Rey River corridor, which connects the extensive open space of Camp Pendleton with National Forest lands to the east. Within this region, a significant amount of development, as well as extensive agriculture, encroaches into the drainage; a pattern that continues to the west, and is less prevalent to the east, constricting and constraining but not severing the corridor.

The San Luis Rey River wetlands not only provide biological value as habitat for resident species, but also allow for migration, genetic exchange, and general movement of both common and sensitive wildlife (and arguably the transport of floral seeds or other genetic material). High quality, native upland habitat, particularly sage scrub, which persists along the BSA, also contributes to the width and habitat constituent diversity of the corridor.

Based on the habitats contained within the San Luis Rey River corridor and its connectivity to the east, in conjunction with known species occurrences, the corridor is considered a regional corridor for meso-predators, coyotes, bobcats, and possibly mountain lions (*Felis concolor*). Locally, the wildlife corridor supports the small range movements of invertebrates, herpetological species, birds, and small, meso, and larger mammals (coyote and bobcat). These local connections may be critical to the continued presence of a diversity of species within the smaller adjacent canyon and preserve lands.

The City's current draft MHCP Subarea Plan (2009) also identifies the Wildlife Corridor Planning Zone (WCPZ), which encompasses habitat parcels that potentially contribute to the north-south, regional gnatcatcher stepping stone corridor. The northern extent of this zone, located north of the San Luis Rey River, extends east along the MCB Camp Pendleton border to Vandergrift Boulevard, encompassing the Whelan Ranch and Pilgrim Creek Conservation Banks, and then south from MCB Camp Pendleton to Buena Vista Creek, varying in width from one to two miles. The WCPZ encompasses portions of the BSA along SR 76/SR-76, the Pala Road Extension, and the Rancho Del Oro Interchange circulation network elements (see Figures 2b, 2c, and 2e).

The City's current draft MHCP Subarea Plan (2009) designates Pre-Approved Mitigation Areas (PAMA) located both within and outside of the WCPZ, which represent land areas that have significant resource value. The City's PAMA encompasses portions of the BSA along SR 76/SR-76 and College Boulevard circulation network elements (see Figures 2b and 2d). The PAMA designated under the North County [of San Diego] draft Multiple Species Conservation Program (MSCP) Subarea Plan also encompasses portions of the BSA along SR 76/SR-76 six lanes and the Melrose Drive Southern Extension circulation network elements (see Figures 2b and 2g).

~~The City's current draft MHCP Subarea Plan (2009) further designates Focused Planning Areas (FPAs), which refer to those lands that are known to support biological resources or are important to preserve design, and are already conserved or are targeted to be wholly or partially conserved under the City's MHCP Subarea Plan. The FPAs equate to lands identified as both "softline" and "hardline" Preserve, which are inclusive of PAMAs, conservation banks, or naturally vegetated lands targeted for conservation. Preserve areas encompass portions of the BSA along SR 76SR-76, the Pala Road Extension, College Boulevard, the Melrose Drive Northern and Southern Extensions, and Coast Highway circulation network elements (see Figures 2b, 2c, 2d, 2f, 2g, 2i).~~

4.0 PROJECT IMPACT ANALYSIS

4.1. CEQA Thresholds of Significance

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

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

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

- Would the Project 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 CDFG or USFWS?
- Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation or by the CDFG or USFWS?
- Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved local, regional, or stat habitat conservation plan?

4.2. CEQA Impact and Mitigation Definitions

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

- CEQA Guidelines §15358 (a) (1) and (b) (Title 14, Chapter 3, Article 20) defines a “direct impact or primary effect” as “effects which are caused by the project and occur at the same time and place” and relate to a “physical change” in the environment.
- CEQA Guidelines §15358 (a) (2) and (b) (Title 14, Chapter 3, Article 20) defines an “indirect impact or secondary effect” as “effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable” and relate to a “physical change” in the environment.

- CEQA Guidelines §15355 (Title 14, Chapter 3, Article 20) defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”

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

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

- “Avoiding the impact altogether by not taking a certain action or parts of an action.”
- “Minimizing impacts by limiting the degree or magnitude of the action and its implementation.”
- “Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.”
- “Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.”
- “Compensating for the impact by replacing or providing substitute resources or environments.”

4.3. CEQA Impacts, Significance, and Mitigation

The proposed Project is being evaluated at a General Plan PEIR tier level; therefore, biological impacts resulting from project implementation are assessed on the basis of proposed General Plan Circulation Element changes. Actions ultimately resulting in quantifiable direct impacts to biological resources would be addressed subsequently through analysis at a lower tier, site-specific level of environmental review. The text below provides a qualitative approach to the impact analysis, based on the potential for impacts to existing biological conditions under the Baseline and Alternatives 1 and 2.

Mitigation measures have been developed to provide assurances, at the General Plan PEIR tier level, that potential significant biological impacts associated with the proposed project will be mitigated. In some instances, this assurance is obtained by incorporation of planning policies at the General Plan level, with subsequent verification to occur at lower tiers of environmental review. In other instances, specific mitigation measures are incorporated to reduce impacts at the site-specific level. Finally, in some instances, it is not possible at the General Plan level to determine if biological impacts would occur from implementation of proposed planning actions; for these situations, mitigation measures provide for further review of the concerns at the plan or project-specific level. It is intended that increased planning detail developed through subsequent Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) documents submitted for approval, will identify site-specific impacts and mitigation measures. Thus, the following measures are not intended to restrict the identification of significant biological impacts, or the development of appropriate mitigation measures as determined through analysis at a lower tier of environmental review.

Adoption of the City’s General Plan Circulation Element Update PEIR would not result in significant, temporary or permanent direct impacts to existing biological resources since all actions of the Project would occur at a later time; however, adoption of this document would lead to reasonably foreseeable potential indirect impacts in the future through approval and implementation of the key network circulation element assumptions. This analysis identifies potential future impacts that could occur through these actions, and these impacts are cited as potential future “indirect

impacts.” Implementation of the following mitigation measures would provide for completion of further environmental review at the project-specific level to minimize the risk of inadvertent or unmitigated direct impacts being authorized through adoption of this General Plan Circulation Element Update PEIR.

- Planning policies shall include a requirement to make use of project designs, engineering, and construction practices that minimize impacts to sensitive habitats and species.
- Further environmental review shall be conducted in accordance with appropriate National Environmental Policy Act (NEPA)/CEQA documentation requirements where specific actions would result in impacts to sensitive habitats and/or species. These reviews shall be conducted at the earliest possible period of tiered project review to ensure the most flexibility in planning and project design, and resolve conflicts with significant biological resources.
- Prior to the implementation of any projects within areas under the jurisdiction of federal, state, or local biological resource regulatory agencies, the project applicant for the specific work shall obtain any and all applicable resource agency permits which may include, but are not limited to, Clean Water Act (CWA) §404 and §401 permits, USFWS Habitat Loss Permit pursuant to §4(d) of the ESA, and CDFG Code §1601 and §1603 streambed alteration agreements.
- The following measures will be considered at the project level review of each circulation element project and shall be incorporated as appropriate to the specific project:
 - A monitoring biologist shall be onsite during: a) initial clearing and grubbing of all native habitats; and b) project construction within 500 feet of preserved habitat to ensure compliance with all conservation measures. The biologist must be knowledgeable of the covered species biology and ecology.
 - The project shall temporarily fence (with silt barriers) the limits of project impacts (including construction staging areas and access routes) to prevent additional habitat impacts and prevent the spread of silt from the construction zone into adjacent native habitats to be preserved. Fencing shall be installed in a manner that does not impact habitats to be preserved. Temporary construction fencing shall be removed upon project completion.
 - Impacts from fugitive dust will be avoided and minimized through watering and other appropriate measures.
 - Construct noise barriers for short sections of road that may impact wildlife breeding;
 - Site traffic controls such as stoplights and stop signs away from sensitive habitat to reduce the concentration of emissions and noise levels;
 - Minimize any materials sidecasting during road construction and maintenance.

4.3.1. Special Status Species

Proposed planning actions have the potential to result in temporary and/or permanent impacts to special status flora and fauna species present within the BSA. Temporary project construction activities occurring within a close proximity to potential nesting habitat for sensitive species could adversely affect individuals during the breeding season by causing them to abandon their nests, thus increasing the potential for eggs or nestlings to be lost to predators or environmental exposure and reducing the reproductive potential of individuals through significant disruption in breeding behavior. Habitat areas proposed for transportation infrastructure modification could result in a permanent impact to sensitive plants, nest-eggs of sensitive birds, aestivation sites for sensitive amphibians, and eggs and larvae of sensitive butterflies occurring within these habitat areas. The introduction of artificial night lighting could also produce physiological and behavioral alterations in

resident wildlife by artificially increasing depredation rates on vulnerable species. Increases in the amount of edge habitat could further affect the value of the area for wildlife, by causing an increase in susceptibility to depredation, brood parasitism, and competition for nesting areas from non-native species.

It is not possible to determine that significant impacts to sensitive species would occur from the proposed planning actions; however, impacts to federal and state listed sensitive species would be significant under CEQA and would require that mitigation measures be implemented to reduce impacts to a level below significance. Implementation of the following mitigation measure would provide reasonable avenues for completion of further environmental review in regards to providing adequate protection of federal and state listed sensitive species.

- Where potential impacts to federal and/or state listed sensitive species and/or MHCP narrow endemic species may occur as a result of proposed project actions, coordination with responsible listing agencies (USFWS and/or CDFG) shall be completed as early as possible and in conjunction with, or prior to, the CEQA process for actions, which may affect these species. Specific actions necessary to protect these sensitive species shall be determined on a case-by-case basis. Planning policies shall include a requirement to make use of project designs, engineering and construction practices that minimize impacts to sensitive habitats and species. The City will coordinate the designs of roads and roadway improvements within or adjacent to wildlife movement linkages and corridors (inclusive of their buffers) with the Wildlife Agencies to ensure viability of the SAP Preserve. This coordination shall occur early enough in the planning process to influence the location, alignment and design of roads and road improvements.
- Proposed project activities should occur outside of the avian breeding season, generally from February 15 to September 15 (as early as January 1 for raptors) to avoid take of birds or their eggs. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted. If avoidance of the avian breeding season is not feasible, the Wildlife Agencies recommend that beginning 30 days prior to the initiation of project activities, a qualified biologist with experience in conducting breeding bird surveys conduct weekly bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors or listed species). The surveys should continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of project activities. If a protected native bird is found, the project proponent should delay all project activities within 300 feet of on- and off-site suitable nesting habitat (within 500 feet for suitable raptor or listed species nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptors or listed species nests) or as determined by a qualified biological monitor, must be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, and/or construction fencing should be used to demarcate the inside boundary of the buffer of 300 feet (or 500 feet) between the project activities and the nest. If the biological monitor determines that a narrower buffer between the project activities and observed active nests is warranted, he/she should submit a written explanation as to why to the City (and, upon request, the Wildlife Agencies, if they so request) will determine whether to allow a narrower buffer. The biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain within the project footprint and that the flagging/staking/fencing is being maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The

biological monitor shall send weekly monitoring reports to the City and shall notify the City immediately if project activities damage active avian nests.

4.3.2. Habitats/Vegetation Communities

Proposed planning actions could result in impacts to the vegetation communities/categories present within the BSA. Since specific future project elements are not well defined, it is not currently possible to quantify the degree of habitat potentially affected from the proposed planning actions; however, impacts to wetlands, rare uplands, coastal sage scrub and annual grassland would be significant under CEQA and would require that mitigation measures be implemented to reduce impacts to a level below significance.

Proposed planning actions also have the potential to produce deleterious edge effects that could adversely modify native vegetation located adjacent to redevelopment areas. Turf and landscape irrigation could alter the localized natural moisture regime of the vegetation, thus increasing weedy vegetation and adjacent plant susceptibility to disease, pests, or fungus, and modifying the composition of native habitats. Increased urban runoff and pollution risks from the use of fertilizers, herbicides, fungicides, and pesticides in maintaining turf and landscaping could adversely affect water quality, flora, and fauna, as well as increase the source material for exotic plant invasions. Human intrusion into habitats and the associated degradation of habitat through trampling would foster an increase in weedy, non-native plant species. These potential indirect impacts could also be significant under CEQA and would require that mitigation measures reduce impacts to a level below significant.

Implementation of the following mitigation measure would provide for completion of further environmental review at the site-specific level to minimize the risk of inadvertent or unmitigated impacts being authorized through adoption of this PEIR level document.

- It is recommended that habitat-based mitigation be implemented consistent with established ratios in the adopted regional MHCP, and as applicable, the City of Oceanside MHCP Subarea Plan. Table 6 below encompasses those mitigation ratio ranges as stated in the adopted regional MHCP, as well as those currently recommended in the City’s draft MHCP Subarea Plan/[NCCP Plan](#) (2009). Mitigation should be completed through 1) on-site preservation; 2) off-site acquisition of mitigation land located within the region; 3) habitat restoration that increases the habitat quality and biological function of the site; or 4) monetary compensation to acquire, maintain and administer the preservation of sensitive biological resources.

Table 6. City of Oceanside MHCP Habitat-Based Mitigation Ratios

MHCP Habitat Group	Mitigation Ratio
Wetland and Riparian/ Habitat Group A ¹	No Net Loss 1:1 to 4:1, <u>depending on the habitat type, quality and location within the Subarea</u>
Rare Upland Habitat Group B	2:1 to 3:1 ²
Coastal Sage Scrub Habitat Group C	1:1 to 3:1 ³
Chaparral Habitat Group D	0.5:1 to 1:1 ⁴
Annual Grasslands Habitat Group E	0.5:1 ⁵
Other Lands	None ⁶

Habitat Group F	
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The following statements are per the City's current draft MHCP Subarea Plan (2009):

¹ All impacts to wetland/riparian habitats (group A) and mitigation for such impacts must be reviewed and approved by Federal and State agencies with jurisdiction over these vegetation communities.

² A higher 3:1 ratio would be required per the current City draft Subarea Plan (2009) if the impact location were within the City Coastal Zone, WCPZ, PAMA, or Off-Site Mitigation Zone.

³ A mitigation ratio range of 1:1 to 2:1 is stated in the adopted regional MHCP for impacts to coastal sage scrub (group C); however, the current City draft MHCP Subarea Plan states a range of 2:1 to 3:1, with impacts in the City WCPZ and PAMA mitigated at a 3:1 ratio and in the Coastal Zone, Agency approved areas of the Offsite Mitigation Zone, and the Agricultural Exclusion Zone mitigated at a 2:1 ratio.

⁴ A mitigation ratio range of 0.5:1 to 1:1 is stated in the adopted regional MHCP for impacts to chaparral (group D); however, the current City draft MHCP Subarea Plan states a mitigation ratio of 1:1 only, with impacts in the City Agricultural Exclusion Zone potentially subject to a Habitat Development Fee.

⁵ Impacts to annual grasslands (group E) in the City Agricultural Exclusion Zone would be potentially subject to a Habitat Development Fee.

⁶ Impacts to other lands (group F), regardless of location, could potentially be subject to a Habitat Development Fee.

*Primary conservation actions for upland habitats (groups B, C, D, or E) in the WCPZ are to avoid impact as much as possible and to minimize any unavoidable impacts. Upland habitat that is conserved and managed onsite in this zone may be used to satisfy in-kind mitigation obligations associated with impacts to upland habitats located onsite.

*Upland habitat (groups B, C, D, or E) may be removed in Pre-approved Mitigation Areas. Upland habitat that is conserved and managed onsite in these areas may be used to satisfy in-kind mitigation obligations associated with onsite impacts to upland habitats. If there is any mitigation obligation that cannot be satisfied with onsite conservation, offsite mitigation must be located inside the WCPZ or other Pre-approved Mitigation Areas.

*Upland habitat (groups B, C, D, or E) may be removed in the Offsite Mitigation Zone. Impacts to upland habitat in this zone must be mitigated within the WCPZ or within Pre-approved Mitigation Areas.

*Upland habitat (groups B, C, D, or E) may be removed in the Agricultural Exclusion Zone. Mitigation obligations for impacts to upland habitats may be located within the WCPZ or within Pre-approved Mitigation Areas. Conservation of upland habitat onsite cannot be used to satisfy any upland mitigation requirements.

**"Up-tiering" of mitigation will be considered on a case-by-case basis and must be approved by both the City and the Wildlife Agencies.

4.3.3. Jurisdictional Wetlands and Waterways

Proposed planning actions could result in impacts to jurisdictional wetlands and waterways, which would be significant under CEQA and would require that the following mitigation measure be implemented to reduce impacts to a level below significance.

- Jurisdictional wetland delineations would be conducted as soon as feasibly possible for each project area of potential biological impacts to wetlands/waterways (e.g., Buena Vista Lagoon, San Luis Rey River, Loma Alta Creek, and Buena Vista Creek and their associated riparian habitats) within the study area once the project alternative has been determined. Impacts to jurisdictional waterways would require the following permits by regulatory federal and state agencies: 1) Army Corps' of Engineers (ACOE), CWA, Section 404 permit for placement of dredged or fill material within waters of the U.S.; 2) Regional Water Quality Control Board (RWQCB), CWA, Section 401 state water quality certification/waiver for an action that may result in degradation of waters of the State; and 3) CDFG, California Fish and Game Code, Section 1602 agreement for alteration of a streambed. Mitigation for unavoidable and/or minimized impacts to jurisdictional waterways would be required as part of the permitting process to ensure a no-net-loss of wetland habitat functions and values.

4.3.4. Wildlife Movement and Nursery Sites

Proposed planning actions could interfere with the movement of native wildlife species or with established native resident or migratory wildlife corridors, as well as result in the loss of, and limit access to, potential foraging breeding habitat for some resident wildlife species. These potential impacts would occur primarily at the SR 78/I-5 Interchange, and along SR 76, the Pala Road Extension, Rancho del Oro Interchange, Melrose Drive Northern and Southern Extensions, College Boulevard and Coast Highway circulation network elements, particularly where roads are proposed to extend further into, or cross existing wildlife corridors or the WCPZ, PAMA or Preserve areas as currently designated in the City's draft MHCP Subarea Plan/NCCP Plan (2009). Potential loss of habitat and adverse edge effects such as non-native species intrusion, predation pressures (i.e., human presence, etc.), elevated noise, and artificial night lighting impacts could also affect wildlife movement and species survival or the successful reproduction necessary to maintain genetic interchange and ensure population stabilization, particularly for sensitive species.

These potential impacts would be significant under CEQA. In addition to the mitigation measures noted above, implementation of the following mitigation measures would be required to reduce impacts to a level below significance under CEQA.

- Proposed transportation infrastructure modification in proximity to wildlife areas shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into wildlife areas. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.
- Night lighting shall be directed away from wildlife areas to protect species from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.”
- Proposed noise generating activities during construction and post-construction affecting wildlife areas shall incorporate setbacks, berms, or walls to minimize the effects of noise on resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.
- When approving landscape plans proposed adjacent to wildlife areas, permittees shall avoid the use of invasive species for the portions of development that are adjacent to wildlife areas. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the wildlife areas, species considered in the planting plans, biological resources being protected within the and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.
- New roads or improvements to existing roads must include wildlife crossing improvements designed for species of concern in the area, and may include bridges, vegetated over-crossings, enlarged culverts, or other structures shown to be effective for wildlife movement, along with appropriate fencing to keep animals off of roads and funnel them to safe crossing points. The placement and design of such crossings, fences, and associated improvements (e.g., vegetation restoration) will be based on site-specific wildlife movement surveys and biological criteria included as part of the CEQA process or other appropriate implementing ordinances. Within or adjacent to the MHCP/Adopted SAP Preserve and/or WCPZ/Regional Corridor, the City will coordinate the design of the road improvements with the Wildlife Agencies to account for

wildlife movement. This coordination needs to occur early enough in the planning process to influence the location, alignment, and design of the road improvements.

- Noise within underpasses should be less than 60 dBA (decibels, A-weighted scale) during the time of day at which the animals use it.
- Use skylight openings within the underpass to allow for vegetation cover within the underpass.
- Any new road should be located in the least environmentally damaging location and designed to minimize fragmentation and edge effects.

4.3.5. Local Policies, Ordinances, and Adopted Plans

Implementation of the ~~above~~ following mitigation measures would ensure consistency with the MHCP; ~~however,~~ In addition, since the City of Oceanside is actively developing ~~has not adopted~~ their sub-regional MHCP Subarea Plan/NCCP Plan ~~but has not been adopted~~, all future specific project actions undertaken shall be reviewed for consistency, as applicable, with City of Oceanside implementing plans/ordinances and their MHCP Subarea Plan/NCCP Plan.

- Potential biological impacts to preserve areas (existing and proposed), WCPZ/Regional Corridor, and/or Agricultural Exclusion Zone identified in the draft Oceanside Subarea Plan/NCCP Plan (when adopted) shall require specific environmental studies associated with the proposed facilities, and subsequently mitigated to a level of less than significant.

4.4. CEQA Cumulative Impacts

The MHCP was designed to compensate for the loss of biological resources throughout the region; therefore, projects that conform to the MHCP as specified by the City of Oceanside MHCP Subarea Plan/NCCP Plan and implementing ordinances would not result in cumulatively considerable impacts for those biological resources adequately covered by the MHCP. Although the regional MHCP was approved under the CEQA process in 2003, the City of Oceanside has not adopted their sub-regional MHCP Subarea Plan/NCCP Plan; therefore, cumulative biological impacts within the City have not been analyzed under an adopted regional plan. Proposed planning actions would result in cumulative impacts to biological resources; however, implementation of the above mitigation measures would reduce impacts to level below cumulatively considerable under CEQA at the General Plan PEIR tier level.

4.5. CEQA Impact Significance after Mitigation

With implementation of the above mitigation measures, biological impacts associated with the proposed project would be mitigated to a level below significance under CEQA at the General Plan PEIR tier level; however, specific actions at lower tiers of environmental review may be determined to result in significant biological impacts requiring further mitigation.

4.6. Impacts under the Migratory Bird Treaty Act (MBTA)/California Fish and Game Code

The BSA has the potential to be utilized by regionally common migratory birds and raptors that are not designated as special status species under CEQA, but are protected under the federal Migratory Bird Treaty Act (MBTA) and CDFG Code Sections 3503 and 3513.

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

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

Since nesting birds could be present during project construction, all grading and construction activities undertaken for the project shall comply with the regulatory requirements of the federal MBTA and CDFG Code Sections 3503 and 3513.

5.0 REFERENCES

- Air Photo USA (aka Digital Globe). 2007. Aerial Imagery [Internet]. Available from: <http://www.digitalglobe.com/>.
- AMEC Earth & Environmental, Inc., Conservation Biology Institute, Onaka Planning & Economics, and The Rick Alexander Company. 2003a. Volume I, Final MHCP Plan. Prepared for the Multiple Habitat Conservation Program. Administered by SANDAG for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. 9 Sections + Attachments A and B.
- AMEC Earth & Environmental, Inc. and Conservation Biology Institute. 2003b. Volume II, Final MHCP Plan, Biological Analysis and Permitting Conditions. Prepared for the Multiple Habitat Conservation Program. Administered by SANDAG for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. 5 Sections + Appendices A through F.
- ~~City of Oceanside. 2009. Draft Oceanside Subarea Habitat Conservation Plan/Natural Communities Conservation Plan [Internet]. 8 Sections + Appendices A through C. Available from: <http://www.ci.oceanside.ca.us/Datarelation.aspx?Content=396>.~~
- American Ornithologists' Union, et al. 1998. Check-list of North American Birds, 7th ed. American Ornithologists' Union, Washington D.C.
- _____. 2010. Fifty-first Supplement to the American Ornithologists' Union *Check-list of North American Birds* [Internet]. *Auk* 127(3):726-744. Available from: <http://www.aou.org/>.
- California Department of Fish and Game (CDFG). 2009 Jul. Special Animals [Internet]. Natural Diversity Database. 50 pp + Endnotes. Available from: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf>.
- _____. 2010a. California Natural Diversity Database (CNDDDB). Biogeographic Data Branch. RareFind 3; GIS shapefile update CD, 9/3/2010. Sacramento, California.
- _____. 2010b. Life History Accounts and Range Maps [Internet]. California Wildlife Habitat Relationships System. Edited by Zeiner DC, et al. 1988-1990, updated. Available from: <http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>.
- _____. 2010c Jul. State and Federally Listed Endangered & Threatened Animals of California [Internet]. Natural Diversity Database. 13 pp. Available from: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf>.
- _____. 2010d Jul. Special Vascular Plants, Bryophytes, and Lichens List [Internet]. Natural Diversity Database. Quarterly publication. 71 pp. Available from: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf>.
- _____. 2010e Jul. State and Federally Listed Endangered & Threatened Plants of California [Internet]. Natural Diversity Database. 16 pp. Available from: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf>.

- California Native Plant Society (CNPS). 2010. Inventory of Rare and Endangered Plants (on-line edition, v7-10a) [Internet]. California Native Plant Society. Sacramento, CA. Available from: <http://www.cnps.org/inventory>.
- California Office of Administrative Law. 2010a. California Environmental Quality Act (CEQA) Guidelines. California Code of Regulations (CCR), Title 14, Division 6, Chapter 3, section 15000 et seq. [Internet]. Available from: <http://ccr.oal.ca.gov/linkedslice/default.asp?SP=CCR-1000&Action=Welcome>.
- California Office of Administrative Law. 2010b. Plants and Animals of California Declared to be Endangered, Threatened, or Rare. California Code of Regulations (CCR), Title 14, Division 1, Subdivision 3, Chapter 3, sections 670.2 and 670.5 [Internet]. Available from: <http://ccr.oal.ca.gov/linkedslice/default.asp?SP=CCR-1000&Action=Welcome>.
- California Office of Legislative Council. 2009. California Environmental Quality Act (CEQA) Statute. California Public Resources Code, Division 13, Chapter 1, section 21000 et seq. [Internet]. Available from: <http://www.leginfo.ca.gov/calaw.html>.
- City of Oceanside. 2010. Final Environmental Impact Report for the Melrose Southern Extension (SCH#2002121008). September 2010.
- . 2009. Draft Oceanside Subarea Habitat Conservation Plan/Natural Communities Conservation Plan [Internet]. 8 Sections + Appendices A through C. Available from: <http://www.ci.oceanside.ca.us/Datarelation.aspx?Content=396>.
- Code of Federal Regulations (CFR), Office of the Federal Register. 2009. Title 50 (Wildlife and Fisheries), Volume 3, Chapter 1, Parts 17.11 (Endangered and Threatened Wildlife) and 17.12 (Endangered and Threatened Plants) [Internet]. Available from: <http://www.gpoaccess.gov/CFR/>.
- Crother BI (ed.). 2000 (2001). Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. SSAR Herpetological Circular 29.iii +82 pp.
- Crother BI, Boundy J, Campbell JA, De Quieroz K, Frost D, Green DM, Highton R, Iverson JB, McDiarmid RW, Meylan PA, Reeder TW, Seidel ME, Sites JW Jr., Tilley SG, Wake DB. 2003. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico: Update. Herpetological Review 2003, 34(3), 196-203.
- Hall ER. 1981. The mammals of North America. 2nd Edition. John Wiley & Sons. New York, New York. Two volumes. 1,181 pp.
- Holland RF. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, State of California, Resources Agency, Department of Fish and Game. Sacramento, California. 157pp.
- Klein MW, San Diego Natural History Museum. 2002. Butterflies of San Diego County [Internet]. Available from: <http://www.sdnhm.org/research/entomology/sdbutterflies.html>.

- Oberbauer T, Kelly M, Buegge J. 2008, Revised 1996 and 2006. Draft Vegetation Communities of San Diego County [Internet]. Based on “Preliminary Descriptions of the Terrestrial Natural Communities of California”, Holland RF, PhD., 1986. Available from: http://www.sdcounty.ca.gov/dplu/docs/Veg_Comm_SDCounty_2008.pdf.
- Peck, S. 1993. Landscape Conservation Planning: Preserving Ecosystems in Open Space Networks. Integrated Hardwood Range Management Program, University of California Cooperative Extension, Department of Environmental Science, Policy and Management; Berkeley, California. 72 pp.
- Rebman JP, Simpson MG. 2006. Checklist of the Vascular Plants of San Diego County, 4th Edition [Internet]. ISBN 0-918969-05-0. Available from: <http://www.sdnhm.org/research/botany/sdplants/index.html>.
- Reiser CH. 2001 February. Rare Plants of San Diego County. Aquafir Press. 2001 edition. 299 pp.
- San Diego Geographic Information Source (SanGIS). 2003. Hydrology, Basins & Watersheds, Hyd_Basins Download (zip) updated 6/5/2003 [Internet]. Available from: <http://www.sangis.org/>.
- _____. 2007. Ecology, Vegetation Download (zip) updated 4/9/2007 [Internet]. Available from: <http://www.sangis.org/>.
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2007. Soil Survey Geographic (SSURGO) database for San Diego County, California [Internet]. Natural Resources Conservation Service (NRCS). Available from: <http://SoilDataMart.nrcs.usda.gov/>.
- U.S. Fish and Wildlife Service (USFWS). 1994 Feb 2. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Least Bell’s Vireo (*Vireo bellii pusillus*) [Internet]. Federal Register, Vol. 59, No. 22. Available from: <http://ecos.fws.gov/docs/frdocs/1994/94-2304.pdf>.
- _____. 2005 Apr 13. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (*Bufo californicus*) [Internet]. Federal Register, Vol. 70, No. 70. Available from: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2005_register&docid=fr13ap05-23.
- _____. 2005 Oct 19. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Southwestern Willow Flycatcher (*Empidonax traillii extimus*); Final Rule [Internet]. Federal Register, Vol. 70, No. 201. Available from: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2005_register&docid=fr19oc05-12.
- _____. 2007 Dec 19. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*); Final Rule [Internet]. Federal Register, Vol. 72, No. 243. Available from: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2007_register&docid=fr19de07-26.

- _____. 2010a. Carlsbad Fish and Wildlife Office, GIS Division Species Occurrence Data Download (zip) 6/30/2005 updated 9/2010 [Internet]. Available from: <http://www.fws.gov/carlsbad/giswebpage/giswebpage>.
- _____. 2010b. Critical Habitat Portal [Internet]. Available from: <http://criticalhabitat.fws.gov/>.
- U.S. Geological Survey (USGS). 1998. San Luis Rey Quadrangle, California; California Digital Raster Graphics, 7.5 Minute (0) Series, Albers NAD 27. Teale Data Center. Sacramento, California.
- _____. 2005. Preliminary Integrated Geological Map Databases for the United States; Western States: California, Nevada, Arizona, Washington, Oregon, Idaho, and Utah. Version 1.2. GIS Data Download California (zip) [Internet]. Available from: <http://pubs.usgs.gov/of/2005/1305/#CA>.
- Wilson DE, Reeder DM (eds). 2005. Mammal Species of the World. Johns Hopkins University Press. 2,142 pp. Available from Johns Hopkins University Press at: 1-800-537-5487 or (410) 516-6900, or <http://www.press.jhu.edu/> or <http://nrmhgoph.si.edu/msw/>.

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