Appendix C1 Biological Resources Addendum

Biological Resources Addendum

Local Coastal Plan and General Plan

Submitted to:
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City of Newport Beach
Local Coastal Plan and General Plan

Prepared for:

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1. INTRODUCTION

SECTION 1.0 – INTRODUCTION

In August of 2003, EIP conducted reconnaissance-level biological surveys to supplement and refine information presented in the *City of Newport Beach, California, Local Coastal Plan – Biological Appendix* (Chambers Group and Coastal Resources Management, December 2002) and the *City of Newport Beach, California, General Plan – Newport Beach Biological Resources* (Chambers Group and Coastal Resources Management, January 2003). A detailed mapping and characterization of seven "Environmental Study Areas" (ESAs) – Banning Ranch, Buck Gully, Coastal Foredunes, MacArthur-San Miguel, Morning Canyon, Semeniuk Slough, and Spyglass Hill – was performed to provide further detail on the habitat composition and quality of each ESA, including the presence of potential waters/wetlands of the U.S., and the habitat's potential to support special-status species. From these data, a ranking system was developed, based on inherent habitat value, to evaluate the sensitivity of the ESAs to future development and guide the City with respect to biological resource permitting and ultimate development of the site(s).

1.1 PURPOSE OF STUDY

EIP Associates was contracted by the City of Newport Beach to supplement the findings presented in the *City of Newport Beach, California, Local Coastal Plan – Biological Appendix* (Chambers Group and Coastal Resources Management, December 2002) and the *City of Newport Beach, California, General Plan – Newport Beach Biological Resources* (Chambers Group and Coastal Resources Management, January 2003).

A Local Coastal Plan (LCP) is required under provisions of the California Coastal Act and is a basic planning tool used by local governments to guide development in the coastal zone, in partnership with the Coastal Commission. The Biological Appendix prepared for the *City of Newport Beach, California, Local Coastal Plan* in December 2002 included the delineation of 19 Environmentally Sensitive Habitat Areas (ESHAs), which are defined by the California Coastal Act as areas in which "plant or animal life or their habitats are either rare or are especially valuable because of their special role in an ecosystem that could easily be disturbed or degraded by human activities or development." The City of Newport Beach determined that the data used to delineate four of the ESHAs (Semeniuk Slough, Buck Gully, Morning Canyon, and Banning Ranch) was not detailed enough for the area to warrant designation as an ESHA. This document aims to provide the detail necessary to allow the Coastal Commission the ability to determine what areas, if any, within these four ESAs may be designated as ESHAs. An additional Non-ESHA Sensitive Habitat (p. 4-58 in *City of Newport Beach, California, Local Coastal Plan*) – the Coastal Foredunes – was also re-evaluated for the same purpose. This refinement of the habitat mapping of these areas will facilitate the decision-making process associated with any proposed development in these areas.

The Biological Resources section of the *General Plan* is intended to serve as an update to the *City of Newport Beach, California, General Plan* by identifying ESHAs in Newport Beach that warrant protection. The Biological Resources Report for the General Plan includes the delineation of nine areas previously designated

as ESHAs, two of which (MacArthur and San Miguel, and Spyglass Hill) the City concluded warranted additional analysis. As above, this document aims to provide the detail necessary to allow the City and Coastal Commission the ability to determine what areas, if any, within these two ESAs may be designated as ESHAs, according to criteria in the California Coastal Act. Refinements to maps based on this additional data will allow the City and potential developers to facilitate the decision-making process surrounding development proposed in these areas.

2. METHODOLOGY

SECTION 2.0 – METHODOLOGY

2.1 LITERATURE REVIEW/INFORMATION SEARCH

Information on occurrences of special-status species in the vicinity of the Study Area was gathered from the California Department of Fish and Game's (CDFG) *Natural Diversity Data Base* (CDFG, 2003) and the California Native Plant Society's (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2003) for the quadrangles containing the Study Area (i.e. Newport Beach, Tustin, and Laguna Beach 7.5 minute quadrangles). The CNDDB and CNPS *Electronic Inventory* are historical observation records and do not constitute an exhaustive inventory of every resource.

Additional background on biological resources within the study area was derived from the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986), the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* (Tibor, Ed., 2001), *The Jepson Manual – Higher Plants of California* (Hickman, J.C., Ed., 1993), and the *Draft Program Environmental Impact Report Newport Banning Ranch Local Coastal Program* (PCR, 2000).

Lastly, EIP biologists reviewed the *City of Newport Beach, California, Local Coastal Plan – Biological Appendix* (Chambers Group and Coastal Resources Management, December, 2002) and the C*ity of Newport Beach, California, General Plan – Newport Beach Biological Resources* (Chambers Group and Coastal Resources Management, January, 2003) for relevant information on the specific ESAs covered in this report.

2.2 HABITAT VALUE RANKING

Basis of the Ranking System

For this report, EIP Associates has developed a system to rank specific areas within each of the respective ESAs based on a composite score of variables that collectively represent habitat quality. Habitats are attributed a low (3), moderate (2) or high (1) rank based on the number of positive or negative ecological attributes or functions (see below) in each area. In general, the more positive attributes or functions maintained by the habitat, the higher the rank, whereas areas with more negative attributes or functions are ranked lower. Moderate and highly ranked habitats are those more ecologically valuable and more likely to be adversely affected by development.

The following attributes were evaluated in ranking the various habitats within each ESA:

- Ability of the habitat to support special status species (recorded or potential)
- Waters of the U.S. or jurisdictional wetlands
- DFG/CNDDB Sensitive Community (e.g. sage scrub, dune, etc.)
- Degree of habitat integrity / connectivity

While most of the above habitat characteristics are easily documentable from a variety of sources, habitat integrity/connectivity is a more subjective measure of biological value, which considers various attributes affecting a given habitat's quality in a particular geographic area. Attributes contributing to (or detracting from) habitat integrity include:

- Patch size and connectivity – Large "pieces" of habitat adjacent to or contiguous with similar or related habitats are particularly useful for more mobile species that rely on larger territories for food and cover.

- Presence of invasive / non-native species – Invasive/non-native species often provide poorer habitat for wildlife than native vegetation. Proliferation of exotic plant species alters ecosystem processes and threatens certain native species with extirpation.

- Disturbance – This includes disturbance due to human activities such as access (trails), dumping, vegetation removal, development, pollution, etc.

- Proximity to development – Habitat areas bordering development provide marginal habitat values to wildlife due to impacts from negative edge effects. This proximity presents the possibility of secondary effects to the habitat due to spillover or human intrusion. Deterioration of habitat results from intrusion of lighting, non-native invasive plant species, domestic animals, and human activity.

- Fragmentation – The converse of "connectedness", habitat fragmentation is the result of development of large areas of undisturbed, contiguous habitat. The resulting breaking up of these areas into isolated, disjunct parcels can create barriers to migration, reduce wildlife food and water resources and generally compress territory size to reduce existing wildlife populations to nonviability. Fragmentation increases negative edge effects, whereby the interior area of habitat is affected by the different conditions of the disturbance on its edges. The smaller a particular habitat is, the greater the proportion of its area which experiences the edge effect, and this can lead to dramatic changes in plant and animal communities. In general, loss of habitat produces a decline in species total population size, and fragmentation of habitat can isolate small sub-populations from each other. This process leads to conditions whereby animals and plant species are endangered by local, then more widespread, extinction.

Use of the Ranking System

The habitat ranking system can be used to direct development away from higher-value habitats or, at a minimum, indicate which areas will likely receive a greater level of resource agency scrutiny in the permitting process. It may also be used to guide mitigation.

Specific habitats within the respective ESAs are attributed a rank of 1 (high value) where proposed development would definitely require a resource permit, including, but not limited to:

1. U.S. Clean Water Act, Section 404 Permit through the U.S. Army Corps of Engineers - waters of the U.S. and associated wetlands;
2. U.S. Endangered Species Act, Section 7 or 10 consultation with the U.S. Fish and Wildlife Service – Listed threatened or endangered species or those proposed for listing;
3. California Fish & Game Code, Section 2081 Incidental Take Permit from the California Department of Fish and Game - Threatened or endangered species or those proposed for listing under the California Endangered Species Act;
4. California Fish & Game Code, Section 1601-1603 Streambed Alteration Agreement with the California Department of Fish and Game – waters of the State.

Habitats with a rank of 2 (moderate value) maintain significant characteristics to support the presence of special status plant and wildlife species. Proposed development in these areas will require additional field surveys to determine if resources are present, which would necessitate permitting activities.

Habitats with a rank 3 (low) are generally predominated by non-native species or otherwise exhibit a history of disturbance that make resource permitting a very unlikely requirement in these areas.

2.3 FIELD SURVEYS

Reconnaissance-level field surveys of were conducted on August 25, 26, and 27, 2003, by Ron Walker and Joshua Boldt of EIP Associates to examine each ESA in order to describe existing resources and to determine their distribution and relative abundance. Surveys focused on identification of areas exhibiting characteristics of natural or undisturbed habitats and areas that could potentially support special-status plant or wildlife species. Surveys of each ESA were conducted on foot and, in each, habitat types were identified and mapped and observed wildlife and plant species were recorded.

Surveys were conducted following a period of elevated precipitation for the Newport Beach area. While precipitation totals for the 2001-2002 wet season were well below average (3.55 in., average is 11.52 in.), those for the 2002-2003 wet season were slightly above average (14.73 in.)

(http://www.oc.ca.gov/prfd/envres/Rainfall/rainfalldata.asp). Consequently, the composition of vegetation communities – in particular annual species and the extent of wetland areas – was likely to be representative of what is typically found in years of average precipitation.

2.4 MAP PREPARATION

Maps and data were created in GIS (Geographical Information Systems) format at a 1:2400 scale, or 1 inch = 200 feet, using ArcView 3.2a, using aerial photographs, coastal zone boundaries, ESA boundaries (Chambers, 2002, 2003) roads, parks, and parcels as base layers. Field observations and measurements were used to subdivide habitats within the existing ESA boundaries. Roads (either dirt or paved) that bisected a habitat were included within the boundaries of an ESA; whereas roads at the edge of an ESA were excluded. The subdivided ESAs were then ranked according to their relative value and resource permitting requirements. Maps of all the ESAs were printed out, using the aerial photos as a base

2.5 ESA DEFINITION

When the City of Newport Beach drafted the first Local Coastal Program (LCP) Land Use Plan in the 1980s, the term “environmentally sensitive habitat area” was used to identify riparian areas, wetlands, intertidal areas, and other habitats that are considered to be environmentally sensitive. These environmentally sensitive habitat areas were described as being located on all or portions of twelve large areas. In 2002, a biological assessment study was conducted for use in updating the biological resource sections of the LCP Land Use Plan (Chambers Group and Coastal Resources Management, December, 2002) and the General Plan (Chambers Group and Coastal Resources Management, January, 2003). This biological assessment study carried over the term “environmentally sensitive habitat area” or “ESHA” to describe twenty-eight areas, including the twelve areas described in the existing LCP Land Use Plan.

The California Coastal Commission staff advised City staff that describing areas as ESHAs should be given careful consideration given the limitations on development within these areas as set forth in Section 30240(a) of the Coastal Act. Section 30240(a) requires the protection of environmentally sensitive habitat areas against any significant disruption of habitat values and limits uses to only those that are dependent on those resources. Consequently, subsequent drafts of the LCP Land Use Plan now identify these areas as “environmental study areas” (ESAs) to distinguish their geographic identification from the ESHAs that may be located within them. To avoid further confusion, this addendum to the 2002 biological assessment study has been prepared to more correctly identify the twenty-eight areas (nineteen in the coastal zone and nine outside of the coastal zone) as “environmental study areas.”

ESAs are typically undeveloped areas supporting natural habitats that may be capable of supporting sensitive biological resources. An ESA may support species and habitats that are sensitive (e.g. wetlands) and rare

within the region or may function as a migration corridor for wildlife. ESAs may contain areas referred to as Environmentally Sensitive Habitat Areas (ESHAs), as defined under Section 30107.5 of the California Coastal Act. These are areas in which “plant or animal life or their habitats are either rare or are especially valuable because of their special nature or role in an ecosystem that could easily be disturbed or degraded by human activities or development”. While an ESHA is, by Coastal Commission definition, a sensitive habitat, an ESA, as defined in this report, requires further study to determine if such a designation is appropriate or if a given area contains resources of particular value or concern.

3. BIOLOGICAL HABITATS

SECTION 3.0 – BIOLOGICAL HABITATS

3.1 ENVIRONMENTAL STUDY AREAS

A variety of diverse, valuable, and sensitive habitats occur within the City of Newport Beach. Environmental Study Areas (ESAs) are those portions of the City that contain natural habitat. An ESA may contain areas that are considered ESHAs.

3.1.1 Semeniuk Slough (Oxbow Loop)

3.1.1.1 Description

Semeniuk Slough is a remnant channel of the Santa Ana River that historically drained into West Newport Bay and is still exposed to limited tidal influence through a tidal culvert connected between the Santa Ana River and the slough. The 76.74-acre site is bordered by the Newport Shores residential development to the south, the Santa Ana River to the west, and the Banning Ranch ESA to the north and east (Figures 2-3). The ESA is located on the USGS Newport Beach 7.5-minute topographic quadrangle. The Semeniuk Slough ESA includes the main slough channel immediately north of Newport Shores and the coastal salt marsh habitat to the north, including a narrow sliver of salt marsh habitat in the far north of the ESA, flanked by the Santa Ana River on the west and the Banning Ranch ESA on the east. Several smaller interconnected channels and inundated depressions are located throughout the salt marsh habitat.

Semeniuk Slough is predominantly an open-water estuary, with southern coastal salt marsh as the predominant fringing vegetation and chenopod scrub and ornamental vegetation as a less significant component of the ESA. Southern coastal salt marsh vegetation on-site is dominated by pickleweed (*Salicornia virginica*), alkali heath (*Frankenia salina*), California cord grass (*Spartina foliosa*), California sea-lavender (*Limonium californicum*), and salt grass (*Distichlis spicata*), with shore grass (*Monanthohloe littoralis*), fleshy jaumea (*Jaumea carnosa*), and saltwort (*Batis maritima*) as associated species. Sea-fig (*Carpobrotus chilensis*) has invaded some of the upland portions of the salt marsh habitat in areas adjacent to disturbance. Other ornamental plant species found along the margin of the main slough channel, primarily in the eastern and southern section of the ESA near Newport Shores, include myoporum (*Myoporum* sp.), acacia (*Acacia* sp.), Mexican fan palm (*Washingtonia robusta*), pine (*Pinus* sp.), and eucalyptus (*Eucalyptus* sp.). An island in the southwest part of the ESA has been graded or otherwise disturbed in the recent past and the resulting plant community is less established than the surrounding salt marsh. This area is dominated by a mixture of salt marsh species, such as salt grass, heliotrope (*Heliotropium curassavicum*), and pickleweed, and upland ruderal species, such as burclover (*Medicago* sp.) and melilotus (*Melilotus* sp.) A small area of chenopod scrub occurs along the levee separating the Santa Ana River and the Semeniuk Slough ESA and is dominated by saltbush (*Atriplex* sp.)

3.1.1.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figures 2-3.

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the Semeniuk Slough ESA:

- Southern Coastal Salt Marsh

Special-Status Species (Potential)

Habitats within the Semeniuk Slough ESA include southern coastal salt marsh, open estuary, and chenopod scrub. These habitats are capable of supporting a variety of special-status plants and animals, including:

- *Cordylanthus maritimus* ssp. *maritimus* (Salt marsh bird's beak): FE, SE, CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Atriplex parishii* (Parish's brittlescale): CNPS 1B
- *Centromadia parryi* ssp. *australis* (southern tarplant): CNPS 1B
- *Helianthus nuttallii* ssp. *parishii* (Los Angeles sunflower): FSC, CNPS 1A
- *Lasthenia glabrata* ssp. *coulteri* (Coulter's goldfields): CNPS 1B
- *Suaeda esteroa* (Estuary seablite): CNPS 1B
- *Cicindela gabbii* (tiger beetle): CSC
- *Tryonia imitator* (California brackishwater snail): FSC
- *Eucycolgobius newberryi* (tidewater goby): FE, CSC
- *Laterallus jamaicensis coturniculus* (California black rail): FSC, ST
- *Rallus longirostris levipes* (light-footed clapper rail): FE, SE
- *Charadrius alexandrinus nivosus* (western snowy plover): FT, CSC
- *Sterna antillarum brown* (California least tern): FE, SE
- *Passerculus sandwichensis beldingi* (Belding's savannah sparrow): SE
- *Gavia immer* (Common loon): FSC, CSC
- *Pelecanus erythrorhynchos* (American white pelican): CSC
- *Circus cyaneus* (northern harrier): CSC
- *Elanus leucurus* (white-tailed kite): FSC
- *Falco columbarius* (merlin): CSC
- *Numenius americanus* (long-billed curlew): FSC, CSC
- *Rynchops niger* (black skimmer): CSC

- *Sterna elegans* (Elegant tern): FSC, CSC
- *Passerculus sandwichensis rostratus* (large-billed savannah sparrow): CSC

FE = Federally Endangered
FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern
CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

The following special-status species have recorded CNDDB occurrences or other known occurrences within or adjacent to the Semeniuk Slough ESA:

- *Centromadia parryi* ssp. *australis* (southern tarplant) (CNPS 1B) (CNDDB Occurrence #65): This occurrence of southern tarplant is from the "Newport Slough, south of the oil fields on the edge of the salt marsh and the access road." This is mapped at the western end of the access road north of the main slough channel in the Semeniuk Slough ESA. More than 100 plants were observed in 1998. This population is presumed to still be present.

- *Suaeda esteroa* (Estuary seablite) (CNPS 1B) (CNDDB Occurrence # 13): This occurrence of estuary seablite is from the "Newport Slough, south of the oil fields on the edge of the salt marsh and the access road." This is mapped along the margin of the access road north of the main slough channel, east of the southern tarplant occurrence, in the Semeniuk Slough ESA. This population is presumed to still be present.

- *Passerculus sandwichensis beldingi* (Belding's savannah sparrow) (CSC) (CNDDB Occurrence # 43): The location of this occurrence of Belding's savannah sparrow is the "Santa Ana River mouth, Newport Slough area." The CNDDB maps this occurrence on the entire southwest portion of the ESA. 17 pairs were observed in 1996, and 36 pairs in 2001. This population is presumed to still be present. In addition, this species is known to breed in nearby areas including Upper Newport Bay and salt marsh habitat in Huntington Beach (MEC 1991).

- *Aphanisma blitoides* (aphanisma) (CNPS 1B) (CNDDB Occurrence # 23): The information for this occurrence is from a 1932 herbarium collection from "Costa Mesa, along base of sea cliffs." It is mapped along the bluff separating Banning Ranch from Highway 1 and Semeniuk Slough. Although this population is presumed to still be present, it has not been observed since 1932.

- The California least tern (*Sterna antillarum*) (FE, SE), which has a large nesting colony on the Huntington Beach side of the Santa Ana River mouth, forages occasionally in the slough channels (Atwood and Minsky 1983).

- Small numbers of western snowy plover (*Charadrius alexandrinus nivosus*) (FT, CSC) breed in the Huntington Beach least tern colony in some years (Gallagher 1997). Western snowy plovers are observed occasionally in Semeniuk Slough (MEC 1991).

- The California brackish water snail (*Tryonia imitator*) (FSC) has been collected in substantial numbers in the channels of Semeniuk Slough (MEC 1991).

Waters/Wetlands of the U.S.

The entire Semeniuk Slough ESA site is salt marsh/open estuary, except for small area of chenopod scrub along western border.

Integrity

The Semeniuk Slough ESA is a relatively large, uninterrupted coastal salt marsh. It is hydrologically and tidally connected to the Santa Ana River, which empties into the Pacific Ocean, and is also contiguous with the large Banning Ranch ESA on its northern and eastern borders. This provides wildlife with a relatively large, diverse area for foraging, shelter, and movement. The proximity to the Newport Shores residential development has introduced numerous ornamental and non-native species to the eastern perimeter of the site, and also allows use of the sloughs for recreational use. A few oil-well related structures are located in the southern part of the ESA, immediately north of the main slough channel. The land surrounding these structures has been cleared. Two roads bisect the ESA - one leading from the Santa Ana River levee to the Banning Ranch area, and the other leading to the oil well structures.

3.1.2 Buck Gully

3.1.2.1 Description

The Buck Gully ESA is a steep, open canyon extending 2.5 miles from Little Corona Beach to Newport Coast Drive in the San Joaquin Hills (Figures 9-12). The canyon is divided by the Coast Highway. The lower section extends from Little Corona Beach to the Coast Highway and the larger, upper section stretches from the Coast Highway to Newport Coast Drive. The 261.95-acre ESA is bordered by the Pacific Ocean and Little Corona Beach to the west, and residential and commercial development to the east, north, and south of the site. The Buck Gully site is located on the Laguna Beach 7.5-minute USGS topographic quadrangle.

The Buck Gully ESA is dominated by Diegan coastal sage scrub and southern mixed chaparral, with southern willow scrub, annual grassland, and coastal freshwater marsh occurring as smaller components of the community. Diegan coastal sage scrub and southern mixed chaparral encompass the majority of the gully - from the upper rims to the alluvial bottoms. A narrow ribbon of southern willow scrub riparian habitat is supported by an unnamed creek that flows along the canyon bottom the length of the gully. Patches of annual grassland occur throughout the chaparral and coastal sage scrub habitats and also in areas where native vegetation has been cleared for fire prevention.

The narrow, western reach of the canyon is largely encroached upon by the adjacent residential areas to the southeast and northwest. The upper slopes in this area of the canyon support a mix of disturbed southern mixed chaparral, a small patch of coastal sage scrub, and non-native ornamental vegetation originating from the surrounding homes. Typical chaparral species in this area include toyon (*Heteromeles arbutifolia*), laurel sumac (*Malosma laurina*), and ceanothus (*Ceanothus* sp.) Non-native and ornamental species include giant reed (*Arundo donax*), acacia, eucalyptus, myoporum, Mexican fan palm, Brazilian pepper tree (*Schinus terebinthifolius*), Peruvian pepper tree (*Schinus molle*), castor bean (*Ricinus communis*), tree tobacco (*Nicotiana glauca*), pampas grass (*Cortaderia* sp.), and fennel (*Foeniculum vulgare*). The canyon bottom in this area is dominated by riparian vegetation including willows (*Salix* spp.), blackberry (*Rubus* sp.), cattail (*Typha* sp.), and bulrush (*Scirpus* sp.). A small freshwater marsh comprised almost exclusively of cattail is situated at the mouth of the gully adjoining Little Corona Beach.

The central section of the canyon immediately northeast of the Coast Highway, while closely confined by residential development, contains fewer ornamental plant species than the coastal portion and supports southern mixed chaparral and southern willow scrub habitats with species compositions similar to the lower canyon. The chaparral in this area supports toyon, laurel sumac, ceanothus, chamise (*Adenostoma fasciculatum*), lemonadeberry (*Rhus integrifolia*), scrub oak (*Quercus berberidifolia*), southern honeysuckle

(*Lonicera subspicata*), redberry (*Rhamnus crocea*), bush monkey flower (*Mimulus aurantiacus*), and sugar bush (*Rhus ovata*).

Approximately adjacent to the intersection of 5th Avenue and Poppy Avenue, the gully veers east and opens into a broader canyon. The southern slopes of the canyon in this area support dense stands of southern mixed chaparral, while the northern slopes support disturbed annual grassland, possibly established as chaparral and coastal sage scrub, but subsequently cleared for fire prevention by homeowners. At present, the annual grassland contains black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), artichoke thistle (*Cynara cardunculus*), wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), barley (*Horedum* sp.), ripgut brome (*Bromus diandrus*), and fennel. Diegan coastal sage scrub becomes more dominant as the canyon slopes on the upper portions of the canyon veer eastward. This community is composed of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), prickly pear (*Optunia* sp.), coyote brush (*Baccharis pilularis*), blue elderberry (*Sambucus mexicana*), laurel sumac, lemonadeberry, and California bush sunflower (*Encelia californica*).

The canyon floor of Buck Gully supports a southern willow scrub community, dominated by willows and mule fat (*Baccharis salicifolia*), with occasional western sycamore (*Platanus racemosa*) and cottonwood (*Populus fremontii*). Associated plant species include cattail, blue elderberry, poison oak (*Toxicodendron diversilobum*), rush (*Juncus* spp.), and nutsedge (*Cyperus* sp.).

The upper canyon is broader than the lower canyon and is therefore less impacted by adjacent development. Vegetation in this area is primarily Diegan coastal sage scrub and southern mixed chaparral, interrupted by occasional patches of annual grassland, and southern willow scrub associated with the creek at the canyon bottom.

3.1.2.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figures 9-12.

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the Buck Gully ESA:

- Diegan coastal sage scrub
- Southern mixed chaparral
- Southern willow scrub
- Coastal freshwater marsh

Special-Status Species (Potential)

The Diegan coastal sage scrub, southern mixed chaparral, southern willow scrub, annual grassland, and coastal freshwater marsh in the Buck Gully ESA are capable of supporting a variety of special-status plants and animals, including:

- *Chorizanthe parryi* var. f*ernandina* (San Fernando spineflower): FC, SE, CNPS 1B
- *Verbesina dissita* (crownsbeard): FT, ST, CNPS 1B
- *Abronia villosa* var. *aurita* (chaparral sand-verbena): CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex coulteri* (Coulter's saltbush): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Atriplex serenana* var. *davidsonii* (Davidson's saltbush): CNPS 1B
- *Calochortus weedii* ssp. *intermedius* (intermediate mariposa lily): CNPS 1B
- *Centromadia parryi* ssp. *australis* (southern tarplant): CNPS 1B
- *Chaenactis glabriuscula* var. *orcuttiana* (Orcutt's pincushion): CNPS 1B
- *Dudleya multicaulis* (many-stemmed dudleya): CNPS 1B
- *Dudleya stolonifera* (Laguna Beach dudleya): FT, ST, CNPS 1B
- *Euphorbia misera* (cliff spurge): CNPS 2
- *Helianthus nuttallii* ssp. *parishii* (Los Angeles sunflower): FSC, CNPS 1A
- *Horkelia cuneata* ssp. *puberula* (mesa horkelia): CNPS 1B
- *Isocoma menziesii* var. *decumbens* (decumbent goldenbush): CNPS 1B
- *Lasthenia glabrata* ssp. *coulteri* (Coulter's goldfields): CNPS 1B
- *Lepidium virginicum* var. *robinsonii* (Robinson's pepper-grass): CNPS 1B
- *Nama stenocarpum* (mud nama): CNPS 2
- *Navarretia prostrata* (prostrate navarretia): CNPS 1B
- *Quercus dumosa* (Nuttall's scrub oak): CNPS 1B
- *Sagittaria sanfordii* (Sanford's arrowhead): CNPS 1B
- *Sidlacea neomexicana* (salt spring checkerbloom): CNPS 2
- *Eucycolgobius newberryi* (tidewater goby): FE, CSC
- *Phrynosoma coronatum blainvillei* (San Diego horned lizard): FSC, CSC
- *Cnemidophorus hyperythrus* (orange-throated whiptail): CSC
- *Crotaulius ruber ruber* (northern red-diamond rattlesnake): CSC
- *Charadrius alexandrinus nivosus* (western snowy plover): FT, CSC
- *Sterna antillarum brown* (California least tern): FE, SE
- *Empidonax traillii extimus* (southwestern willow flycatcher): FE
- *Polioptila californica californica* (coastal California gnatcatcher): FT, CSC

- *Vireo bellii pusillus* (least Bell's vireo): FE, SE
- *Phalacrocorax auritus* (double-crested cormorant): CSC
- *Accipiter cooperii* (Cooper's hawk): CSC
- *Elanus leucurus* (white-tailed kite): FSC
- *Campylorhynchus brunneicapillus* (coastal cactus wren): CSC
- *Dendroica petechia brewsteri* (yellow warbler): CSC
- *Icteria virens* (yellow-breasted chat): CSC
- *Perognathus longimembris pacificus* (Pacific pocket mouse): FE, CSC

FE = Federally Endangered
FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern
CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

The following special-status species have recorded CNDDB occurrences within the Buck Gully ESA:

- *Euphorbia misera* (cliff spurge) (CNPS 2) (CNDDB Occurrence # 21): The location for this occurrence is listed as "Corona del Mar State Beach" and consists of a total of three colonies at the following locations: "Inspiration Point south of Orchid Ave. at Ocean Blvd.; adjacent to Glen Dr./Beach Dr.; and south of Glen Dr." This first location is just north of the mouth of Buck Gully. A "Glen Dr." does not exist in Newport Beach, but the colonies associated with these locations are assumed to be in the general vicinity of the first colony. 60 plants were observed in 1989. This population is presumed to still be present.

- *Dudleya multicaulis* (many-stemmed dudleya) (CNPS 1B) (CNDDB Occurrence # 94): The source for this occurrence is a 1908 herbarium collection from "Corona del Mar bluffs." This population has not been relocated and is believed to be no longer present.

- *Quercus dumosa* (Nuttall's scrub oak) (CNPS 1B) (CNDDB Occurrence # 3): This occurrence is reported to be due east of the corner of 5th Ave. and Poppy Ave. in Buck Gully in an area of chaparral

and coastal sage scrub. Four to seven plants were observed in 1991, and this occurrence is presumed to still be present.

- *Lasthenia glabrata* (Coulter's goldfields) (CNPS 1B) (CNDDB Occurrence # 58): Location information for this occurrence is "Buck Gully, about one mile upstream from Highway 1." Two plants were observed in 1998 in a clay depression near willow woodland in the valley bottom. This occurrence is presumed to still be present.

Waters/Wetlands of the U.S.

The unnamed creek channel flowing the length of Buck Gully is a likely water of the U.S. Sections of the riparian corridor and the coastal freshwater marsh at the mouth of the canyon near Little Corona Beach may also be considered "associated wetlands."

Integrity

The lower (western) portion of Buck Gully is isolated from the upper Buck Gully by the Coast Highway. This area is closely confined by residential development on the south and north. The proximity to development, accessibility by local residents and their pets, and abundance of non-native ornamental plant species detract from the quality of habitat for wildlife species in this area. The upper (eastern) portion of Buck Gully is a broad, open, relatively undisturbed canyon. Coastal sage scrub and mixed chaparral dominate much of the area, except for the riparian corridor along the canyon bottom and the tops of the canyon, which are influenced by the adjacent residential development. Much of the native vegetation near the rim of the canyon has been removed to reduce wildfire hazard.

Ornamental and non-native plant species from the adjacent residential development have encroached into Buck Gully, especially in the lower, narrow portions. Annual grasslands in Buck Gully consist of non-native annual grasses and forbs. Some non-native inclusions were also observed in the Diegan coastal sage scrub, southern mixed chaparral, and southern willow scrub habitats.

3.1.3 Morning Canyon

3.1.3.1 Description

Morning Canyon, an 8.26-acre ESA perpendicular to the coastline, is located between Corona Highlands and Cameo Highlands above the Coast Highway, and between Shore Cliff and Cameo Shores on the ocean side of Coast Highway (Figure 9). Morning Canyon is bordered by the Pacific Ocean to the west, Pelican Hills Golf

Course to the east, and residential development to the north and south. This ESA is located on the Laguna Beach 7.5 minute USGS topographic quadrangle.

Morning Canyon is characterized by disturbed, remnant, southern mixed chaparral vegetation on the canyon floor and along the upland slopes. This area, however, contains few remaining native species and is dominated by non-native and ornamental species that have invaded the canyon from adjacent residential areas located immediately to the northwest and southeast. Native plant species in the remnant southern mixed chaparral community include coyote brush, toyon, mountain mahogany (*Cercopcarpus betuloides*), lemonadeberry, and blue elderberry. Non-native species include fennel, pampas grass, acacia, date palm (*Phoenix* sp.), fig (*Ficus* sp.), hottentot fig (*Carpobrotus edulis*), Himalayan blackberry (*Rubus discolor*), tree tobacco, pittosporum (*Pittosporum* sp.), and castor bean.

The canyon bottom once supported a southern willow scrub and willows, mule fat, and mugwort (*Artemisia douglasiana*) can still be observed growing among the dominant non-native vegetation, though these species are no longer common enough to consider this habitat to be southern willow scrub. Non-native plant species now dominate the bottom and lower slopes of the canyon and include giant reed, acacia, hottentot fig, eucalyptus, myoporum, Mexican fan palm, Brazilian pepper tree, Peruvian pepper tree, pampas grass, ivy (*Hedera* sp.), and fennel.

Although most of the native riparian-associated species have been displaced by non-native and ornamental species, the area is still used by riparian wildlife, such as American crow (*Corvus brachyrhyncus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), cedar waxwing (*Bombycilla garrulous*), English sparrow (*Passer domesticus*), raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*). The presence of a perennial watercourse along with a structurally diverse woody vegetation community provides the necessary habitat attributes that are essential to riparian-associated species.

3.1.3.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figure 9.

DFG/CNDDB Sensitive Habitats:

- Southern mixed chaparral (disturbed, remnant)

Special-Status Species (Potential)

Habitats within the Morning Canyon ESA include disturbed, remnant southern mixed chaparral and the creek channel. These habitats are capable of supporting a variety of special-status plants and animals, including:

- *Verbesina dissita* (crownsbeard): FT, ST, CNPS 1B
- *Abronia villosa* var. *aurita* (chaparral sand-verbena): CNPS 1B
- *Calochortus weedii* ssp. *intermedius* (intermediate mariposa lily): CNPS 1B
- *Dudleya multicaulis* (many-stemmed dudleya): CNPS 1B
- *Dudleya stolonifera* (Laguna Beach dudleya): FT, ST, CNPS 1B
- *Horkelia cuneata* ssp. *puberula* (mesa horkelia): CNPS 1B
- *Isocoma menziesii* var. *decumbens* (decumbent goldenbush): CNPS 1B
- *Lepidium virginicum* var. *robinsonii* (Robinson's pepper-grass): CNPS 1B
- *Quercus dumosa* (Nuttall's scrub oak): CNPS 1B
- *Sidlacea neomexicana* (salt spring checkerbloom): CNPS 2
- *Vireo bellii pusillus* (least Bell's vireo): FE, SE
- *Phrynosoma coronatum blainvillei* (San Diego horned lizard): FSC, CSC
- *Crotaulius ruber ruber* (northern red-diamond rattlesnake): CSC
- *Elanus leucurus* (white-tailed kite): FSC
- *Empidonax traillii extimus* (southwestern willow flycatcher): FE
- *Dendroica petechia brewsteri* (yellow warbler): CSC
- *Icteria virens* (yellow-breasted chat): CSC

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FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern
CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

There are no recorded occurrences of special-status species in the CNDDB for the Morning Canyon ESA.

Wetlands/Waters of the U.S.

The unnamed creek channel flowing the length of Morning Canyon is likely a jurisdictional waters of the U.S.

Integrity

The lower, southwestern section of Morning Canyon is separated from the upper section of Morning Canyon by the Coast Highway. The entire canyon is very narrow and closely bordered by residential development on the northwest and southeast, the Pacific Ocean to the southwest, and the Pelican Hills Golf Course at the northeastern edge of the area. Ornamental species have completely displaced native vegetation in much of canyon and now dominate throughout the majority of this ESA. Pets from the adjacent residences likely use the area and further discourage wildlife use of the canyon.

3.1.4 MacArthur and San Miguel

3.1.4.1 Description

The 7.69-acre MacArthur and San Miguel ESA (Figure 7), consists of two relatively small and isolated patches of undeveloped land divided by San Miguel Drive, and bordered by Avocado Avenue to the northwest and MacArthur Boulevard to the southeast. The area south of San Miguel Drive is bordered by an open lot to the south (north of the Central Library), while the area north of San Miguel Drive is bordered by San Joaquin Hills Road to the northeast. The site is located on the USGS Newport Beach 7.5-minute topographic quadrangle.

The area south of San Miguel Drive is 3.54 acres of predominantly Diegan coastal sage scrub habitat, consisting of California sagebrush, deerbrush (*Lotus scoparius*), and coyote brush, along with the non-native tocalote and scattered instances of prickly pear. Other common, non-native species include black mustard and various grasses. The perimeter of this portion of the site has been previously disturbed by adjacent road development and several ornamental species occur immediately outside the boundaries of this area, including eucalyptus, myoporum, and Peruvian pepper tree. Much of the adjacent undeveloped land - particularly the large lot separating the site from the Central Library - supports ruderal vegetation.

Two drainages intersect in the middle of this parcel. An east-west flowing drainage supports a limited amount of disturbed southern willow scrub habitat containing willow, cattails, bulrush and mule fat. The north-south flowing drainage supports a small seasonal wetland consisting of cattail and duckweed (*Lemna* sp.)

The area north of San Miguel Drive consists of 4.15 acres dominated by mowed annual grassland containing ripgut brome, wild oat, soft chess, Bermuda grass (*Cyonodon dactylon*), Bermuda buttercup (*Oxalis pes-*

caprae), and black mustard. There are also some scattered coyote brush, California sagebrush, and saltbush (*Atriplex* sp.) shrubs typically associated with the coastal sage scrub that likely dominated the site prior to development. This area has been graded adjacent to MacArthur Boulevard, but then slopes steeply towards Avocado Avenue. A public transit center on the northern third of this parcel is bordered by ornamental (Mexican fan palm and pine) trees and turf grass, which also occur at the corner of MacArthur Boulevard and San Miguel Drive. Two concrete-lined ditches - one adjacent to Avocado Avenue and the other crossing the site near San Miguel Drive – drain the area. Sediment depostion at the downstream ends of these drainages support limited vegetation including wetland-associated species such as nutsedge.

3.1.4.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figure 7.

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the MacArthur/San Miguel ESA:

- Diegan coastal sage scrub
- Southern willow scrub (disturbed)

Special-Status Species (Potential)

Habitats within the MacArthur/San Miguel ESA include Diegan coastal sage scrub and southern willow scrub. These habitats are capable of supporting a variety of special-status plants and animals, including:

- *Chorizanthe parryi* var. f*ernandina* (San Fernando spineflower): FC, SE, CNPS 1B
- *Verbesina dissita* (crownsbeard): FT, ST, CNPS 1B
- *Abronia villosa* var. *aurita* (chaparral sand-verbena): CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex coulteri* (Coulter's saltbush): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Atriplex serenana* var. *davidsonii* (Davidson's saltbush): CNPS 1B
- *Calochortus weedii* ssp. *intermedius* (intermediate mariposa lily): CNPS 1B
- *Dudleya multicaulis* (many-stemmed dudleya): CNPS 1B
- *Dudleya stolonifera* (Laguna Beach dudleya): FT, ST, CNPS 1B
- *Euphorbia misera* (cliff spurge): CNPS 2
- *Horkelia cuneata* ssp. *puberula* (mesa horkelia): CNPS 1B
- *Isocoma menziesii* var. *decumbens* (decumbent goldenbush): CNPS 1B
- *Lepidium virginicum* var. *robinsonii* (Robinson's pepper-grass): CNPS 1B

- *Navarretia prostrata* (prostrate navarretia): CNPS 1B
- *Quercus dumosa* (Nuttall's scrub oak): CNPS 1B
- *Sidlacea neomexicana* (salt spring checkerbloom): CNPS 2
- *Phrynosoma coronatum blainvillei* (San Diego horned lizard): FSC, CSC
- *Cnemidophorus hyperythrus* (orange-throated whiptail): CSC
- *Polioptila californica californica* (coastal California gnatcatcher): FT, CSC
- *Vireo bellii pusillus* (least Bell's vireo): FE, SE
- *Campylorhynchus brunneicapillus* (coastal cactus wren): CSC

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FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern
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CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Although suitable habitat exists for these species within the MacArthur/San Miguel ESA, the small, fragmented nature of the area and its proximity to development, makes it unlikely that most species would utilize this area.

Special-Status Species (Known Occurrences)

There are no recorded occurrences of special-status species in the CNDDB for the MacArthur/San Miguel ESA.

Waters/Wetlands of the U.S.

The two drainages traversing the parcel south of San Miguel Drive, along with the small seasonal wetland associated with the north-south flowing drainage, could be potential "waters of the U.S." The concrete-lined ditches north of San Miguel Drive are, however, not likely to be considered "waters of the U.S."

Integrity

This ESA is relatively small in size (7.69 acres) and completely isolated from any adjacent, associated habitats by urban development, thereby precluding the use of this ESA by most wildlife species. This proximity to

development has introduced numerous ornamental and non-native species to the perimeter of the site, further reducing the integrity of the ESA. The fact that the area north of San Miguel Drive is maintained in a mowed condition makes use of this area by wildlife highly unlikely.

3.1.5 Spyglass Hill

3.1.5.1 Description

The 17.31-acre Spyglass Hill ESA includes the uppermost reaches of Big Canyon (Figure 8). The site consists of a well-defined canyon with vegetated slopes bordered by residential development and a seasonal, southeast to northwest flowing drainage at the canyon bottom. This ESA is west of Spyglass Hill Road and northeast of Mission Bay Drive. The site is located on the USGS Newport Beach 7.5-minute topographic quadrangle.

This community is dominated by the Diegan coastal sage scrub and southern mixed chaparral, with several ornamental trees along the northeast-facing slope, just up from the vegetated canyon bottom. In addition, native vegetation immediately adjacent to the residential development has been cleared for fire prevention purposes.

The upland areas on the north and east slopes of the main drainage support dense Diegan coastal sage scrub habitat, dominated by California sagebrush, coyote brush, lemonadeberry, California buckwheat, deerweed, white sage, and laurel sumac. Slopes south and west of the drainage support southern mixed chaparral, dominated by toyon, ceanothus, coyote brush, bush mallow (*Malacothamnus* sp.), scrub oak, live oak (*Quercus agrifolia*), bush monkey flower, poison oak, blue elderberry, lemonadeberry, and chamise. The drainage itself is ephemeral and therefore is unable to support typical riparian habitat. It is characterized by species associated with the Diegan coastal sage scrub to the northeast and the southern mixed chaparral to the southwest.

3.1.5.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figure 8.

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the Spyglass Hill ESA:

- Diegan coastal sage scrub
- Southern mixed chaparral

Special-Status Species (Potential)

The Diegan coastal sage scrub and southern mixed chaparral habitats within the Spyglass Hill ESA are capable of supporting a variety of special-status plants and animals, including:

- *Chorizanthe parryi* var. f*ernandina* (San Fernando spineflower): FC, SE, CNPS 1B
- *Verbesina dissita* (crownsbeard): FT, ST, CNPS 1B
- *Abronia villosa* var. *aurita* (chaparral sand-verbena): CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex coulteri* (Coulter's saltbush): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Atriplex serenana* var. *davidsonii* (Davidson's saltbush): CNPS 1B
- *Calochortus weedii* ssp. *intermedius* (intermediate mariposa lily): CNPS 1B
- *Dudleya multicaulis* (many-stemmed dudleya): CNPS 1B
- *Dudleya stolonifera* (Laguna Beach dudleya): FT, ST, CNPS 1B
- *Euphorbia misera* (cliff spurge): CNPS 2
- *Horkelia cuneata* ssp. *puberula* (mesa horkelia): CNPS 1B
- *Isocoma menziesii* var. *decumbens* (decumbent goldenbush): CNPS 1B
- *Lepidium virginicum* var. *robinsonii* (Robinson's pepper-grass): CNPS 1B
- *Navarretia prostrata* (prostrate navarretia): CNPS 1B
- *Quercus dumosa* (Nuttall's scrub oak): CNPS 1B
- *Sidlacea neomexicana* (salt spring checkerbloom): CNPS 2
- *Phrynosoma coronatum blainvillei* (San Diego horned lizard): FSC, CSC
- *Cnemidophorus hyperythrus* (orange-throated whiptail): CSC
- *Crotaulius ruber ruber* (northern red-diamond rattlesnake): CSC
- *Polioptila californica californica* (coastal California gnatcatcher): FT, CSC
- *Campylorhynchus brunneicapillus* (coastal cactus wren): CSC
- *Perognathus longimembris pacificus* (Pacific pocket mouse): FE, CSC

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FT = Federally Threatened
SE = State Endangered
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FSC = Federal Species of Concern
CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant

CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

The following special-status species have recorded CNDDB occurrences within the Spyglass Hill ESA:

- *Perognathus longimembris pacificus* (Pacific pocket mouse) (FE, CSC) (CNDDB Occurrence # 4): This is a historic collection from 1971 centered around "Spyglass Hill". The occurrence is believed to be no longer present.

Waters/Wetlands of the U.S.

The unnamed creek channel flowing the length of through this ESA is a potential waters of the U.S.

Integrity

The Spyglass Hill ESA is a relatively undisturbed area of high-quality Diegan coastal sage scrub and southern mixed chaparral. Except for the area immediately adjacent to the residential development to the west and southwest, the habitats in the Spyglass Hill ESA are almost entirely composed of native species. However, this ESA is completely isolated from any adjacent, associated habitats by residential development, and overall the area is relatively small (17.31 acres). This is an ideal example of fragmented habitat. While supporting undisturbed native vegetation communities, the isolated nature of the area possibly precludes its use by many wildlife species.

3.1.6 Coastal Foredunes

3.1.6.1 Description

Foredune habitats are identified by stands of dense to sparse annual and perennial herbs, grasses, or shrubs occurring on sand dunes along the coast. In Newport Beach, southern coastal foredune habitat extends southwest, from 10th Street to the tip of the Balboa peninsula along the ocean side of Balboa, immediately adjacent to the bike lane (Figures 4-6). The vegetation in this community is generally sparse with overall cover ranging from 20 to 70 percent in some areas, while other areas are completely devoid of vegetation. Areas of open sand fragment this southern coastal foredune habitat. Dominant plants include non-native species such as sea-fig, hottentot fig, sea rocket (*Cakile maritima*), and native purple sand-verbena (*Abronia umbellata*), beach evening primrose (*Camissonia cheiranthifolia*), beach morning glory (*Calystegia soldanella*), and beach

bur (*Ambrosia chamissonis*). Many areas are almost completely covered by sea-fig and hottentot fig, which seem to have been introduced from the residences fronting the beach area. Although many areas within the Coastal Foredunes ESA have extensive non-native cover, these species are considered to be a component of southern coastal foredune habitat and were therefore not mapped differently from those areas supporting a predominance of native species.

3.1.6.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings illustrated in Figures 4-6.

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the Coastal Foredunes ESA:

- Southern coastal foredune

Special-Status Species (Potential)

Habitats within the Coastal Foredunes ESA include southern coastal foredune and open beach, which could support a variety of special-status plants and animals, including:

- *Cordylanthus maritimus* ssp. *maritimus* (salt marsh bird's-beak): FE, SE, CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex coulteri* (Coulter's saltbush): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Chaenactis glabriuscula* var. *orcuttiana* (Orcutt's pincushion): CNPS 1B
- *Hordeum intercedents* (vernal barley): CNPS 3
- *Nemacaulis denudata* var. *denudata* (coast woolly-heads): CNPS 1B
- *Charadrius alexandrinus nivosus* (western snowy plover): FT, CSC
- *Sterna antillarum brown* (California least tern): FE, SE
- *Phalacrocorax auritus* (double-crested cormorant): CSC
- *Passerculus sandwichensis tostratus* (large-billed savannah sparrow): CSC

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FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern

CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

The following special-status species have recorded CNDDB occurrences within the Coastal Foredunes ESA:

- *Nemacaulis denudata* var *denudata* (coast woolly-heads) (CNPS 1B) (CNDDB Occurrence # 17): This occurrence consists of three collections on Newport Peninsula from the harbor entrance north to about 9th St. Collections include "…..from 6th St. to harbor entrance", "…. 8th and 9th St. sand dunes", and "Newport Beach". This occurrence is presumed to still be present.

Waters/Wetlands of the U.S.

No potential wetlands/waters of the U.S. were observed during biological surveys within the Coastal Foredunes ESA.

Integrity

Ornamental and non-native species, likely introduced from the adjacent residences, dominate much of the southern coastal foredune habitat in this ESA. Numerous residences use the beach area as an extension of their backyards and residents have planted and irrigated the ornamental species that have replaced native species in these areas. Increased human activity and public access also adversely impact these dune habitats, as evidenced by the numerous trails bisecting the dunes.

3.1.7 Banning Ranch

3.1.7.1 Description

The 282.40-acre Banning Ranch ESA is located near the mouth of the Santa Ana River (Figures 13-14). This ESA is bordered to the northeast and east by residential and commercial development, to the north by Talbert Regional Park, to the south by West Coast Highway, and to the south and west by the Newport Shores residential community and the Semeniuk Slough ESA. The Banning Ranch site is located on the Newport Beach 7.5 minute USGS topographic quadrangle.

The Banning Ranch ESA encompasses four distinct topographic features that influence the type and character of biological resources on the site. The western edge of Newport Mesa, which comprises much of the eastern portion of the site, represents a coastal plane that slopes gently from east to west. Historic oil-extraction related infrastructure is found throughout the mesa, including the location of wells, pipelines, buildings, improved and unimproved roads, and open storage pipes and machinery.

Bluffs form the western edge of the mesa, which are very steep along the southern and southwestern edges of the mesa, but become less severe in the north. These bluffs provide a transition between mesa uplands to the east and the lowlands to the west.

The bluffs and mesa are incised at various points along their/its length by a number of drainages. Two of these drainage features - one in the southern portion of the site and one in the northern portion - are markedly larger than the others and referred to as “arroyos”.

The majority of the lowlands in the western portion of the project site were historically tidal marsh associated with Semeniuk Slough. The construction of a levee between the Banning Ranch lowlands and Semeniuk Slough removed the former from tidal influence, very likely to facilitate oil extraction activities. Subsequent channelization of the Santa Ana River and oil extraction activities at Banning Ranch, dating back at least 75 years, have altered these lowlands area to where they are now characterized by narrow channels and low pockets of periodically-standing water in some areas. Tidal influence is presently limited to only 4.8 acres at the southwest corner of the lowlands. The entire area supports a network of roads, pipelines, oil derricks, and a few buildings.

Plant communities on the Banning Ranch property range from relatively undisturbed native to highly disturbed exotic populations. Upland (mesa) areas generally support southern coastal bluff scrub and non-native grassland, while the lowlands support riparian and wetland vegetation. Current plant communities include: (1) southern coastal bluff scrub; (2) sage scrub-grassland ecotone/sere; (3) annual grassland; (4) ruderal (uplands); (5) ruderal wetlands; (6) vernal pool; (7) alkali meadow; (8) southern coastal salt marsh; (9) coastal brackish marsh; (10) mulefat scrub; (11) southern black willow forest; (12) developed areas; (13) disturbed areas; and (14) ornamental vegetation (Figures 13-14).

Scattered portions of both upland and lowland areas of Banning Ranch contain ruderal vegetation dominated by non-native grasses and forbs. Plant species associated with this community include black mustard, wild radish (*Raphanus sativus*), pampas grass, fennel, and filaree (*Eroidum* sp.). The lowland portions of this ESA consist of ruderal wetlands, alkali meadows, southern coastal salt marsh, and coastal brackish marsh. Ornamental vegetation occurs throughout the site, though primarily in the upland areas, and include hottentot-fig, myoporum, and eucalyptus.

3.1.7.2 Habitat Value Ranking

The following resources contribute to the habitat value rankings:

DFG/CNDDB Sensitive Habitats:

The following sensitive habitats occur within the Banning Ranch ESA:

- Southern Coastal Bluff Scrub
- Vernal Pool
- Alkali Meadow
- Southern Coastal Salt Marsh
- Coastal Brackish Marsh
- Southern Black Willow Forest

Special-Status Species (Potential)

The southern coastal bluff scrub, annual grasslands, ruderal wetlands, vernal pool, alkali meadow, southern coastal salt marsh, coastal brackish marsh, mulefat scrub, and southern black willow forest in the Banning Ranch ESA are capable of supporting a variety of special-status plants and animals, including:

- *Chorizanthe parryi* var. f*ernandina* (San Fernando spineflower): FC, SE, CNPS 1B
- *Cordylanthus maritimus* ssp. *maritimus* (salt marsh bird's-beak): FE, SE, CNPS 1B
- *Verbesina dissita* (crownsbeard): FT, ST, CNPS 1B
- *Abronia villosa* var. *aurita* (chaparral sand-verbena): CNPS 1B
- *Aphanisma blitoides* (aphanisma): CNPS 1B
- *Atriplex coulteri* (Coulter's saltbush): CNPS 1B
- *Atriplex pacifica* (South Coast saltbush): CNPS 1B
- *Atriplex parishii* (Parish's brittlescale): CNPS 1B
- *Atriplex serenana* var. *davidsonii* (Davidson's saltbush): CNPS 1B
- *Calochortus weedii* ssp. *intermedius* (intermediate mariposa lily): CNPS 1B
- *Centromadia parryi* ssp. *australis* (southern tarplant): CNPS 1B
- *Chaenactis glabriuscula* var. *orcuttiana* (Orcutt's pincushion): CNPS 1B
- *Dudleya multicaulis* (many-stemmed dudleya): CNPS 1B
- *Dudleya stolonifera* (Laguna Beach dudleya): FT, ST, CNPS 1B
- *Euphorbia misera* (cliff spurge): CNPS 2
- *Helianthus nuttallii* ssp. *parishii* (Los Angeles sunflower): FSC, CNPS 1A
- *Hordeum intercedents* (vernal barley): CNPS 3
- *Horkelia cuneata* ssp. *puberula* (mesa horkelia): CNPS 1B

- *Isocoma menziesii* var. *decumbens* (decumbent goldenbush): CNPS 1B
- *Lasthenia glabrata* ssp. *coulteri* (Coulter's goldfields): CNPS 1B
- *Lepidium virginicum* var. *robinsonii* (Robinson's pepper-grass): CNPS 1B
- *Nama stenocarpum* (mud nama): CNPS 2
- *Navarretia prostrata* (prostrate navarretia): CNPS 1B
- *Quercus dumosa* (Nuttall's scrub oak): CNPS 1B
- *Sagittaria sanfordii* (Sanford's arrowhead): CNPS 1B
- *Sidlacea neomexicana* (salt spring checkerbloom): CNPS 2
- *Branchinecta sandiegoensis* (San Diego fairy shrimp): FE
- *Cicindela gabbii* (tiger beetle): CSC
- *Tryonia imitator* (California brackishwater snail): FSC
- *Eucycolgobius newberryi* (tidewater goby): FE, CSC
- *Phrynosoma coronatum blainvillei* (San Diego horned lizard): FSC, CSC
- *Cnemidophorus hyperythrus* (orange-throated whiptail): CSC
- *Crotaulius ruber ruber* (northern red-diamond rattlesnake): CSC
- *Laterallus jamaicensis coturniculus* (California black rail): FSC, ST
- *Rallus longirostris levipes* (light-footed clapper rail): FE, SE
- *Charadrius alexandrinus nivosus* (western snowy plover): FT, CSC
- *Sterna antillarum brown* (California least tern): FE, SE
- *Empidonax traillii extimus* (southwestern willow flycatcher): FE
- *Polioptila californica californica* (coastal California gnatcatcher): FT, CSC
- *Vireo bellii pusillus* (least Bell's vireo): FE, SE
- *Passerculus sandwichensis beldingi* (Belding's savannah sparrow): SE
- *Phalacrocorax auritus* (double-crested cormorant): CSC
- *Accipiter cooperii* (Cooper's hawk): CSC
- *Circus cyaneus* (northern harrier): CSC
- *Elanus leucurus* (white-tailed kite): FSC
- *Falco columbarius* (merlin): CSC
- *Numenius americanus* (long-billed curlew): FSC, CSC
- *Rynchops niger* (black skimmer): CSC
- *Athene cunicularia* (burrowing owl): CSC
- *Eremophila alpestris* (horned lark): CSC
- *Campylorhynchus brunneicapillus* (coastal cactus wren): CSC
- *Lanius ludovicianus* (loggerhead shrike): CSC
- *Dendroica petechia brewsteri* (yellow warbler): CSC
- *Icteria virens* (yellow-breasted chat): CSC

- *Passerculus sandwichensis rostratus* (large-billed savannah sparrow): CSC
- *Perognathus longimembris pacificus* (Pacific pocket mouse): FE, CSC

FE = Federally Endangered
FT = Federally Threatened
SE = State Endangered
ST = State Threatened
FSC = Federal Species of Concern
CSC = State Species of Special Concern
CNPS 1A = California Native Plant Society List 1A Plant
CNPS 1B = California Native Plant Society List 1B Plant
CNPS 2 = California Native Plant Society List 2 Plant

Special-Status Species (Known Occurrences)

The following special-status species have recorded CNDDB occurrences or other known occurrences within or adjacent to the Banning Ranch ESA:

- *Centromadia parryi* ssp. *australis* (southern tarplant) (CNPS 1B) (CNDDB Occurrence #64): This occurrence of southern tarplant is from the "south end of the Newport oil fields in disturbed areas adjacent to oil pipelines" and is mapped near the southwestern border of the Banning Ranch ESA near its boundary with the Semeniuk Slough ESA. More than 1000 plants were observed in 1998. It was also observed on Banning Ranch by PCR during surveys conducted in 2000 for the *Draft Program Environmental Impact Report Newport Banning Ranch Local Coastal Program* (PCR, 2000). This population is presumed to still be present.

- *Aphanisma blitoides* (aphanisma) (CNPS 1B) (CNDDB Occurrence # 23): The information for this occurrence is from a 1932 herbarium collection from "Costa Mesa, along base of sea cliffs" and was mapped along the bluff separating Banning Ranch from Highway 1 and Semeniuk Slough. Although this population is presumed to still be present, it has not been observed since 1932.

- San Diego fairy shrimp (*Branchinecta sandiegoensis*) (FE) was documented by PCR during surveys conducted in February and March 2000 for the *Draft Program Environmental Impact Report Newport Banning Ranch Local Coastal Program* (PCR, 2000) from the vernal pool and a small depression immediately to the south.

- Coastal California gnatcatcher (*Polioptila californica californica*) (FT, CSC) has been observed primarily within coastal bluff scrub onsite during focused surveys from 1992 to 1998. 19 pairs were observed in 1992 and between 1993 and 1996, the number of observed pairs ranged from 16 to 29. 17 pairs were observed in 1997, and 19 pairs were observed in 1998 (PCR, 2000).

- Coastal cactus wren (*Campylorhynchus brunneicapillus*) (CSC) Ten pairs were observed in 1997 and seven pairs were observed in 1998 (PCR, 2000).

- The following special-status species were observed either on-site or flying over the area during surveys conducted by PCR for the *Draft Program Environmental Impact Report Newport Banning Ranch Local Coastal Program* (PCR, 2000): California least tern, yellow warbler, Belding's savannah sparrow, southwestern willow flycatcher, northern harrier, Cooper's hawk, golden eagle, sharp-shinned hawk, white-tailed kite, and osprey. No further details about these observations were given.

Waters/Wetlands of the U.S.

A 1998 wetland delineation performed by PCR determined there were 57.5 acres of jurisdictional waters on Banning Ranch, including 57.15 acres of jurisdictional wetlands and 0.35 acre of unvegetated channels. The majority of these wetlands are in the lowland portion in the northwest part of the ESA, with other jurisdictional areas associated with four drainages originating at various locations on the upper portions of the site. In addition, one vernal pool was identified near the central portion of the site (PCR, 2000).

Integrity

The Banning Ranch ESA is a large, relatively undeveloped, but historically disturbed assemblage of diverse habitats that, together with the contiguous Semeniuk Slough ESA, provides wildlife with a significantly large, diverse area for foraging, shelter, and movement. Infrastructure related to oil exploration and extraction is scattered throughout the area, especially in the northern portion of the mesa, degrading the native habitats where they occur. Much of the land surrounding developed areas (i.e. oil infrastructure) is disturbed and does not support any vegetation. Improved and unimproved roads bisect the entire ESA, fragmenting habitat and creating increased areas of "edge effect". Areas supporting annual grassland and ruderal vegetation communities are dominated by non-native species, typically annual grasses and forbs. Ornamental species are found throughout the site, primarily in upland areas. The entire Banning Ranch ESA is closed to public access, though pets from nearby residences and feral domestic animals are common transients through these habitats.

While disturbance associated with the oil infrastructure does diminish the quality of habitat in the Banning Ranch ESA to some extent, the overall area should be regarded as relatively high-quality wildlife habitat due to its large size, habitat diversity, and continuity with the adjacent Semeniuk Slough ESA.

3.2 SUMMARY

The information in this report is presented as a supplement to the *City of Newport Beach, California, Local Coastal Plan – Biological Appendix* (Chambers Group and Coastal Resources Management, December 2002) and the *City of Newport Beach, California, General Plan – Newport Beach Biological Resources* (Chambers Group and Coastal Resources Management, January 2003). Together with the ESA maps provided in Figures 2-14, this information can facilitate the decision-making process associated with any proposed development in these areas. This will guide the City in focusing development in areas with the fewest impacts to biological resources and attempting preservation and protection in areas with the highest biological value. The habitat value ranking system presented in this report will also guide resource permitting efforts of prospective developers by indicating which sub-areas of the studied ESAs either definitely will require some level of permitting or for which additional studies need to be performed to determine whether such permitting is required.

4. LITERATURE CITED

SECTION 4.0 – LITERATURE CITED

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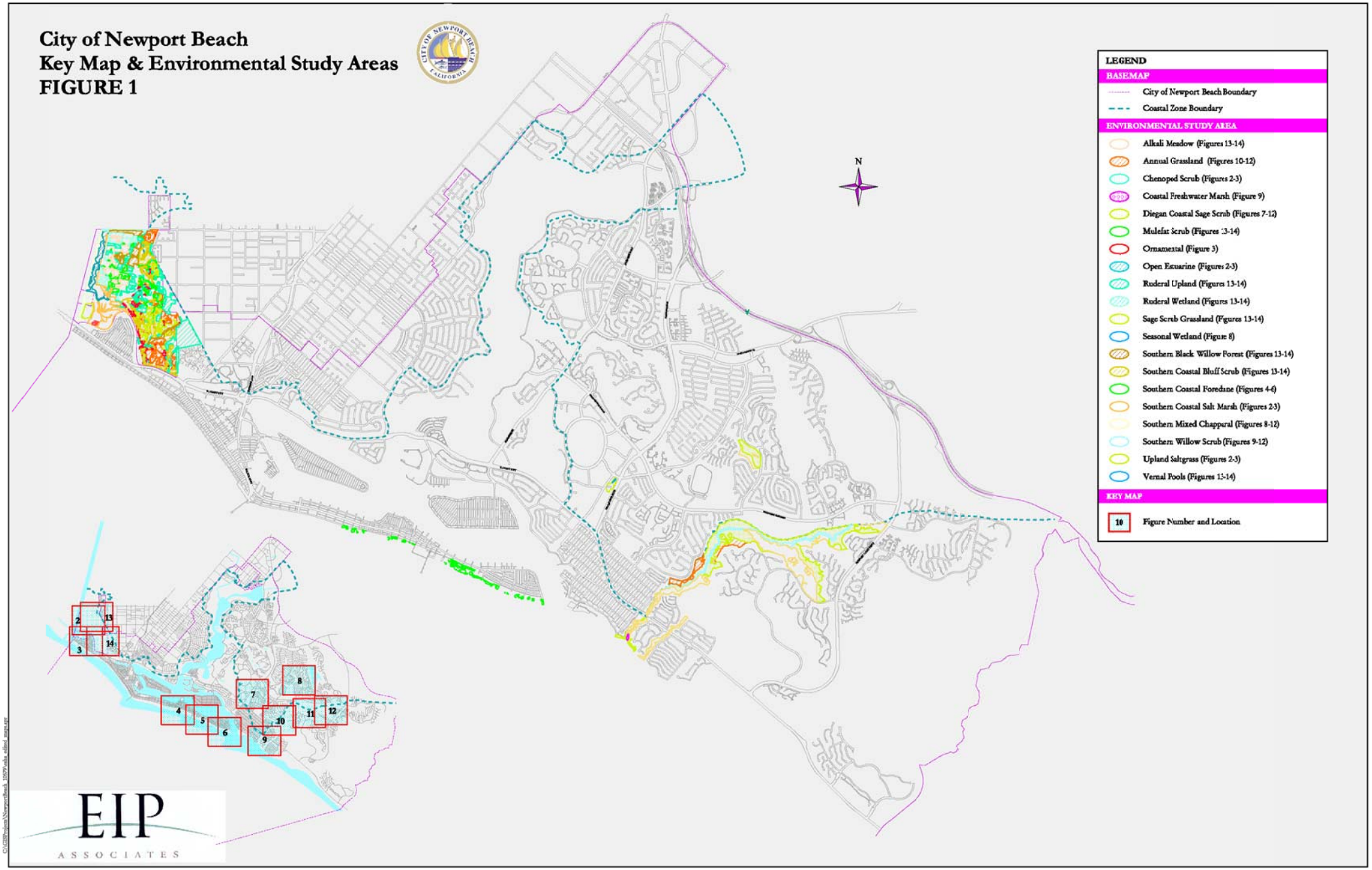
APPENDIX

Appendix A

Figures

The full-color, full-size figures are available as part of the TBR and/or on the City's GP website at **http://www.nbvision2025.com**

City of Newport Beach
Key Map & Environmental Study Areas
FIGURE 1



EIP ASSOCIATES

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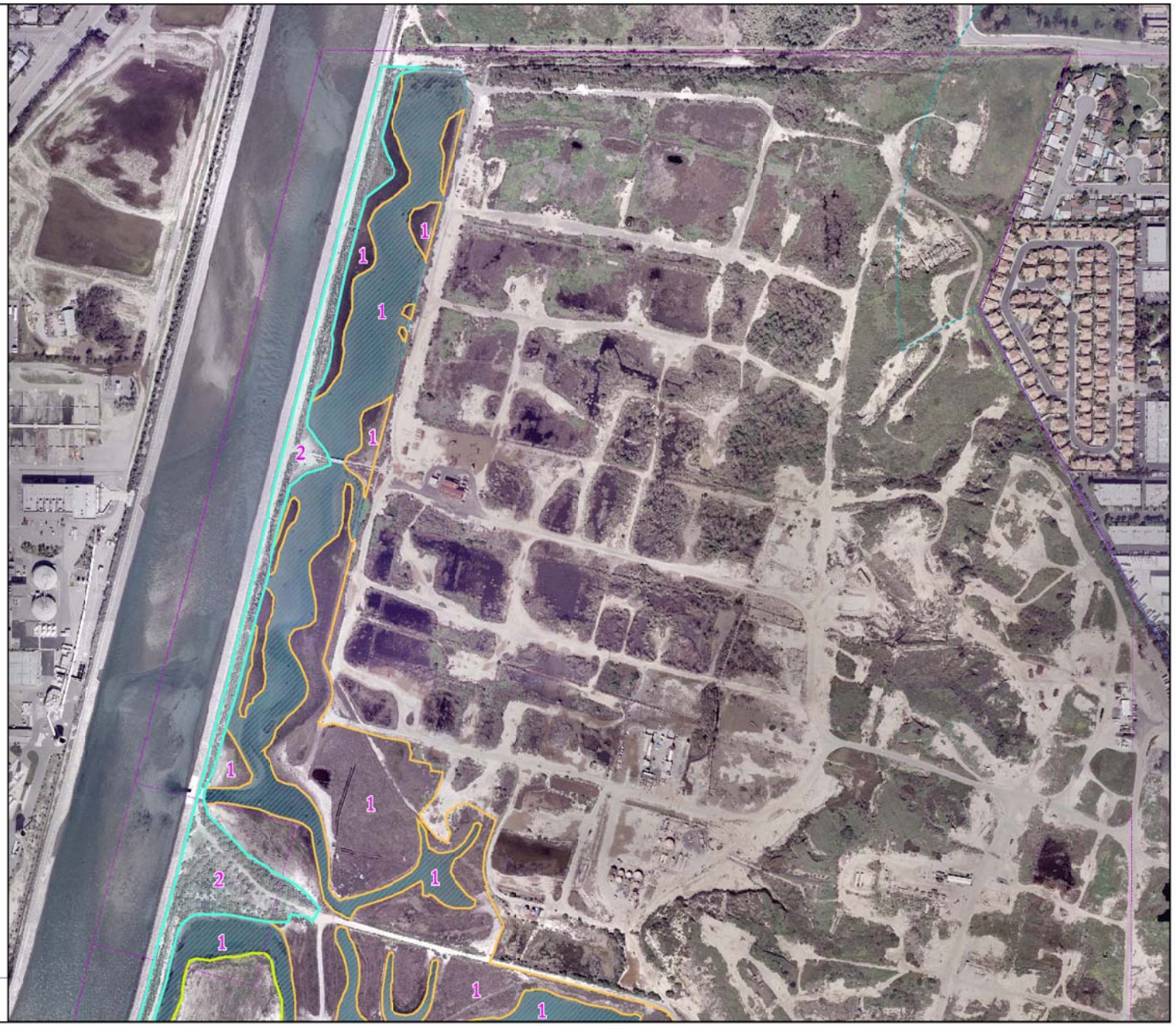
City of Newport Beach
Environmental Study Areas
FIGURE 2 - Semeniuk Slough



LEGEND

HABITAT VALUE RANKING

1. Resource Permitting Required
2. Permitting Requirements Unknown - Additional Surveys Likely
3. Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Open Estuarine
- Southern Coastal Salt Marsh
- Upland Saltgrass
- Chenopod Scrub

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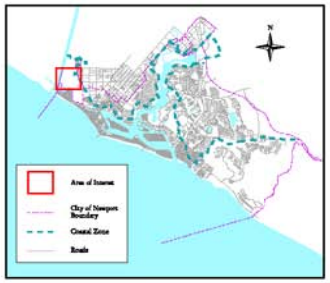
CITY OF NEWPORT BEACH



EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 3 - Semeniuk Slough

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Permitting Requirements Unknown - Additional Surveys Likely
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Open Estuarine
- Southern Coastal Salt Marsh
- Chenopod Scrub
- Upland Saltgrass
- Ornamental

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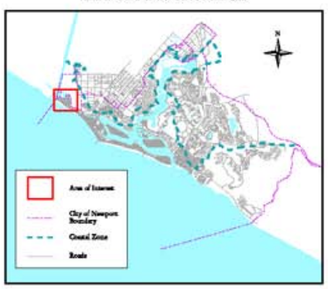

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

City of Newport Beach
Environmental Study Areas
FIGURE 4 - Coastal Dunes

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Permitting Requirements Unknown - Additional Surveys Likely
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Southern Coastal Foredune

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EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002, Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

City of Newport Beach
Environmental Study Areas
FIGURE 5 - Coastal Dunes

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Resource Permitting Possible - Additional Surveys Required
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Southern Coastal Foredune

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CITY OF NEWPORT BEACH

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

City of Newport Beach
Environmental Study Areas
FIGURE 6 - Coastal Dunes

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Permitting Requirements Unknown - Additional Surveys Likely
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Southern Coastal Foredune

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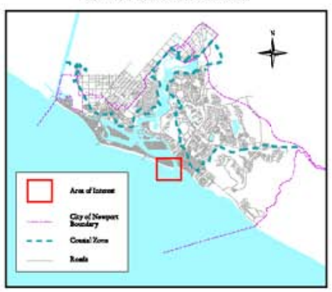

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 7 - MacArthur and San Miguel

LEGEND

HABITAT VALUE RANKING

1. Resource Permitting Required
2. Resource Permitting Possible - Additional Surveys Required
3. Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Diegan Coastal Sage Scrub
- Southern Willow Scrub
- Seasonal Wetland
- Annual Grassland
- Ornamental

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CITY OF NEWPORT BEACH

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002; Street Centerlines, September 7, 2001, City Boundary, December 11, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mark, October 6, 2003, and GIS Program, December 1, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 8 - Spyglass Hill

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Resource Permitting Possible - Additional Surveys Required
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Diegan Coastal Sage Scrub
- Southern Mixed Chapparal

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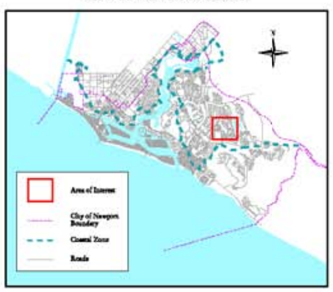
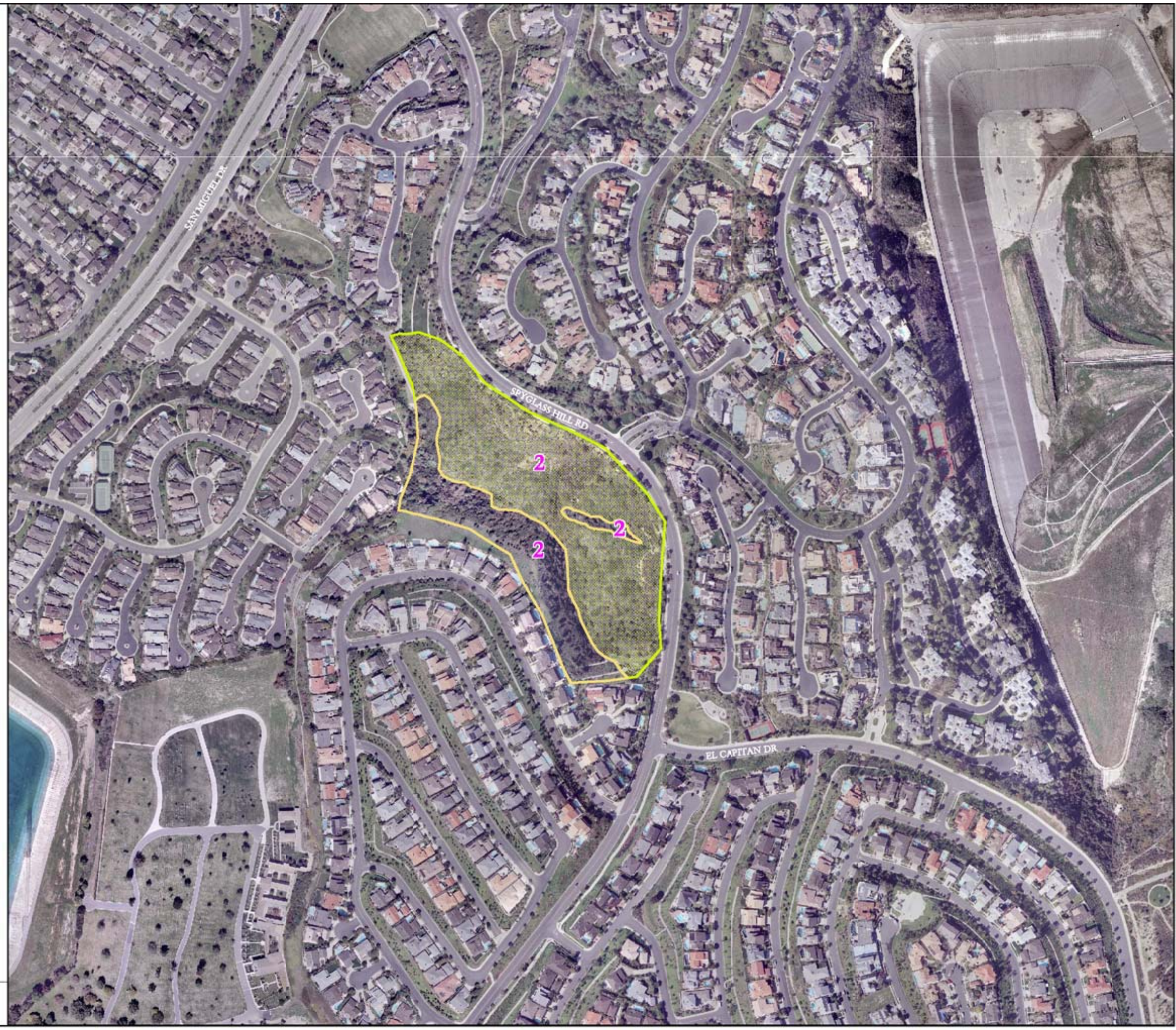
CITY OF NEWPORT BEACH



EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.



City of Newport Beach
Environmental Study Areas
FIGURE 9 - Buck Gully and Morning Canyon

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Resource Permitting Possible - Additional Surveys Required
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Diegan Coastal Sage Scrub
- Southern Mixed Chapparal
- Southern Willow Scrub
- Coastal Freshwater Marsh
- Creeks

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CITY OF NEWPORT BEACH

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

City of Newport Beach
Environmental Study Areas
FIGURE 10 - Buck Gully

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Resource Permitting Possible - Additional Surveys Required
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Diegan Coastal Sage Scrub
- Southern Mixed Chaparral
- Southern Willow Scrub
- Annual Grassland
- Creeks

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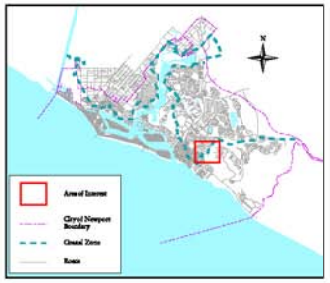

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. River Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mesh, October 6, 2003, and GIS Program, October 6, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 11 - Buck Gully

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6,2003, and GIS Program, October 6, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 12 - Buck Gully

LEGEND

HABITAT VALUE RANKING

- 1 Resource Permitting Required
- 2 Resource Permitting Possible - Additional Surveys Required
- 3 Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS

- Diegan Coastal Sage Scrub
- Southern Mixed Chapparal
- Southern Willow Scrub
- Annual Grassland
- Creeks

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CITY OF NEWPORT BEACH

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; and EIP Associates, Edited ESHAs, September 10, 2003, Pacific Mask, October 6, 2003, and GIS Program, October 6, 2003.

City of Newport Beach
Environmental Study Areas
FIGURE 13 - Banning Ranch

LEGEND

HABITAT VALUE RANKING

- 1 — Resource Permitting Required
- 2 — Resource Permitting Possible - Additional Surveys Required
- 3 — Resource Permitting Unlikely

ENVIRONMENTAL STUDY AREAS AND RANKING

Study Area	Ranking	Study Area	Ranking
Alkali Meadow	1	Sage Scrub Grassland	2
Annual Grassland	3	Southern Black Willow Forest	1
Mulefat Scrub	2	Southern Coastal Bluff Scrub	2
Ornamental	3	Southern Coastal Salt Marsh	1
Ruderal Upland	3	Vernal Pool	1
Ruderal Wetland	2		

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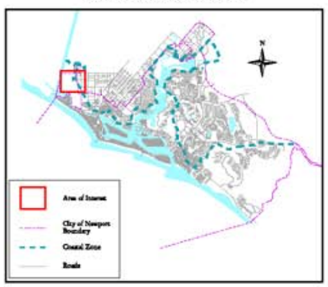

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; Fuscoe Engineering, Banning Ranch CAD Files, October 14, 2003; and EIP Associates, Banning Ranch Vegetation (Adapted from Fuscoe Engineering)November 5, 2003, Pacific Mark, October 6, 2003, and GIS Program, November 5, 2003.

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City of Newport Beach
Environmental Study Areas
FIGURE 14 - Banning Ranch

EIP ASSOCIATES

Source: City of Newport Beach, Aerials, 2002. Street Centerlines, September 7, 2001, City Boundary, December 21, 2001, Coastal Zone, and Open Water, April 4, 2001; Psomas Engineering, Banning Ranch CAD Files, October 14, 2003; and EIP Associates, Banning Ranch Vegetation (Adapted from Psomas Engineering)November 3, 2003, Pacific Mark, October 6, 2003, and GIS Program, November 3, 2003.

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