BIOLOGICAL TECHNICAL REPORT

Helix Environmental Planning, December 21, 2005

FORRESTER CREEK INDUSTRIAL PARK

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Forrester Creek Industrial Park
Biological Technical Report

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1.0 INTRODUCTION

This biological technical report was prepared to provide the City of El Cajon (City; California Environmental Quality Act [CEQA] lead agency), wildlife agencies, and the public with current biological data to satisfy the review of the proposed Forrester Creek Industrial Park project (proposed project) under CEQA and other federal, state, and local regulations. The report describes vegetation communities as well as sensitive resources observed or detected on the project site that could be potentially affected upon implementation of the proposed project. In addition, this report includes qualitative and quantitative analyses of direct and indirect impacts to vegetation communities and sensitive resources. Mitigation measures are proposed to offset the proposed project's potentially significant impacts to sensitive vegetation communities and sensitive plant and animal species.

1.1 PROJECT LOCATION AND DESCRIPTION

The approximately 41.4-acre project site is located in El Cajon, California west of Gillespie Field Airport (Figures 1 and 2). Specifically, the project site is located north of Weld Boulevard, south of Prospect Avenue, and west of Cuyamaca Street. According to the U.S. Geological Survey, the site is located in the 7.5-minute El Cajon quadrangle in Township 15 South Range 1 West (Figure 2).

The project proposes to construct approximately 470,500 square feet of multi-tenant industrial space, combining light industrial and warehouse uses.

1.2 PHYSICAL DESCRIPTION AND LAND USE

The project site is generally flat with elevations ranging between 347 feet above mean sea level (amsl) and 410 amsl. The site encompasses Fletcher Hills driving range, a County of San Diego equipment repair facility, a cement processing facility, and a culverted portion of Forrester Creek. Soil types mapped on site include Fallbrook-Vista sandy loam (9 to 15 percent slope), Salinas clay loam (0 to 2 percent slope), and Diablo clay (25 to 30 percent slope; Bowman 1973). Several ephemeral drainages traverse the site. Surrounding land uses include light industrial and manufacturing facilities to the north; Weld Boulevard, light industrial and manufacturing facilities, and vacant land to the south; single-family homes and light industrial facilities to the west; and Cuyamaca Street and Gillespie Field Airport to the east. The Gillespie Field Trolley Station is located southeast of the project site.

2.0 SURVEY METHODS

2.1 GENERAL BIOLOGICAL SURVEY

HELIX Environmental Planning, Inc. (HELIX) biologist Brian Parker conducted vegetation mapping as well as a general botanical and wildlife survey on December 6, 2005.

2.2 NOMENCLATURE

Nomenclature used in this report is from Holland (1986) for vegetation communities, Hickman, ed. (1993) for plants, Emmel and Emmel (1973) for butterflies, Crother (2001) for amphibians and reptiles, American Ornithologists' Union (2004) for birds, and Baker et al. (2003) for mammals.

Plant species status is taken from the California Native Plant Society (CNPS) database (CNPS 2005). Sensitive animal status is taken from California Department of Fish and Game (CDFG 2005).

3.0 RESULTS

3.1 VEGETATION COMMUNITIES

Five vegetation communities occur on site (listed here in order of sensitivity): disturbed Diegan coastal sage scrub, non-native grassland, eucalyptus woodland, disturbed habitat, and developed land (Figure 3; Table 1).

Table 1
EXISTING VEGETATION COMMUNITIES

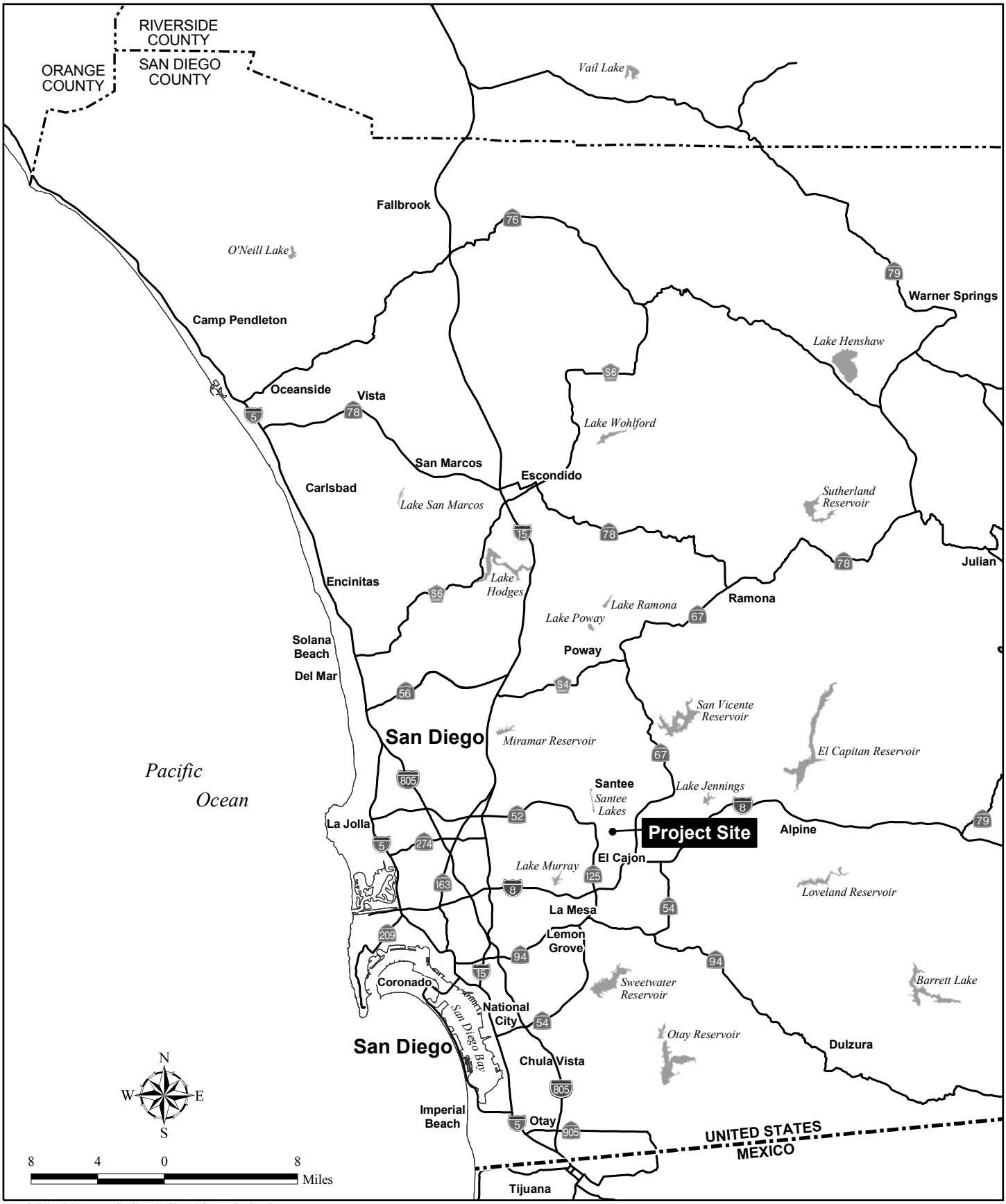
VEGETATION COMMUNITY*	ACREAGE†
Disturbed Diegan coastal sage scrub (32500)	2.2
Non-native grassland (42200)	15.4
Eucalyptus woodland (11100)	<0.1
Disturbed habitat (11300)	11.5
Developed land (12000)	12.3
TOTAL	41.4

*Numeric vegetation community codes are from Holland (1986)
†Totals reflect rounding

3.1.1 Diegan Coastal Sage Scrub – Disturbed

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils. Dominated by drought-deciduous shrub species with relatively shallow root systems and open canopies, coastal sage scrub communities often contain a substantial herbaceous component. Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Despite the fact that it has been greatly reduced from its historical distribution (Oberbauer and Vanderwier 1991), the Diegan association is the dominant coastal sage scrub in coastal southern California from Los Angeles to Baja California, Mexico (Baja; Holland 1986). This habitat also supports a number of endangered, threatened, and rare vascular plants as well as several bird and reptile species that are candidate species for federal listing.

Diegan coastal sage scrub is commonly characterized by drought-adapted subshrubs such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and white sage (*Salvia apiana*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub but is sparser and has a higher proportion of non-native annual species. On site, disturbed Diegan coastal sage scrub occurs in the three patches in the western central portion of the site (Figure 3).



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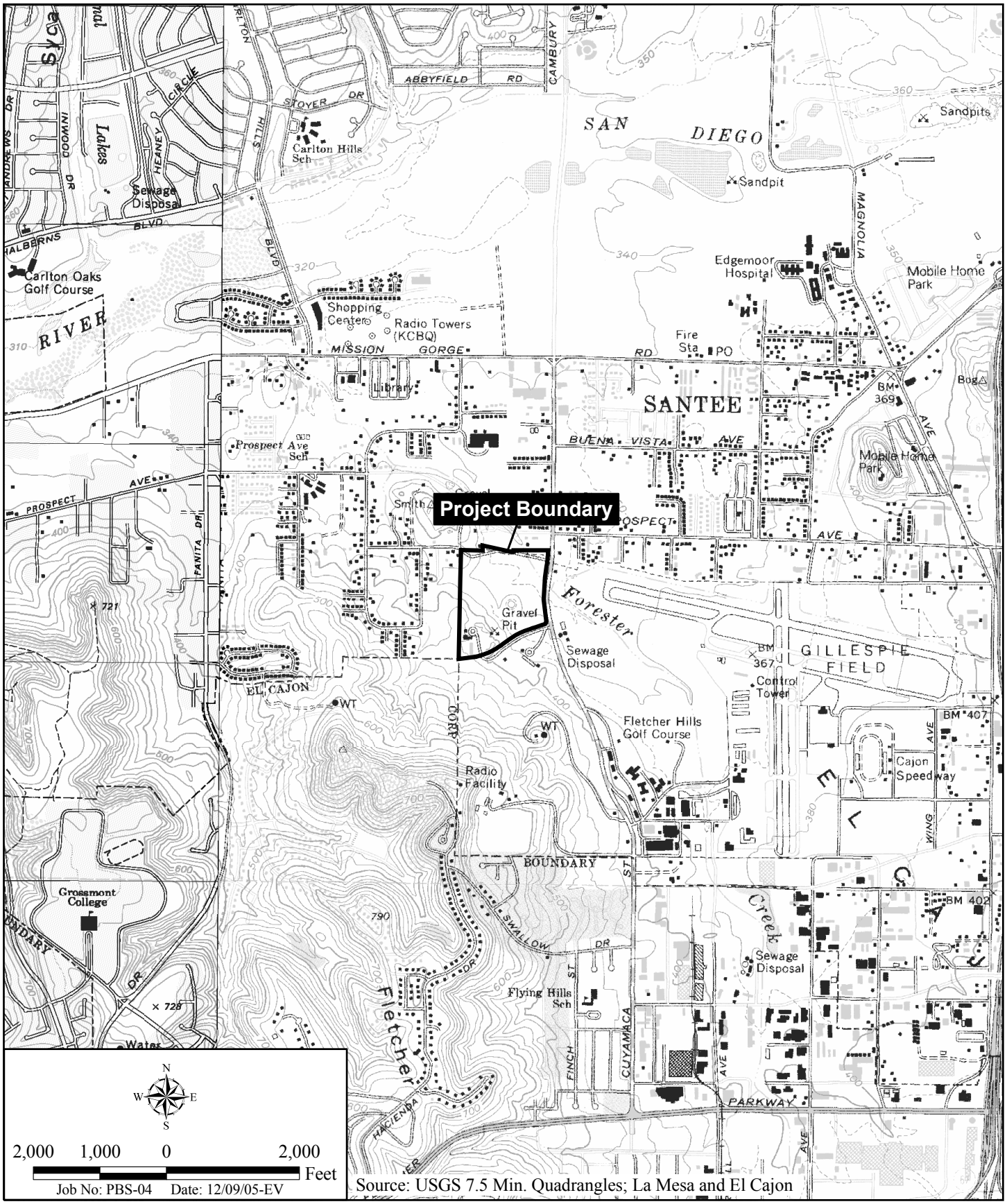
Regional Location Map

FORRESTER CREEK

HELIX

Figure 1



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Project Vicinity Map

FORRESTER CREEK

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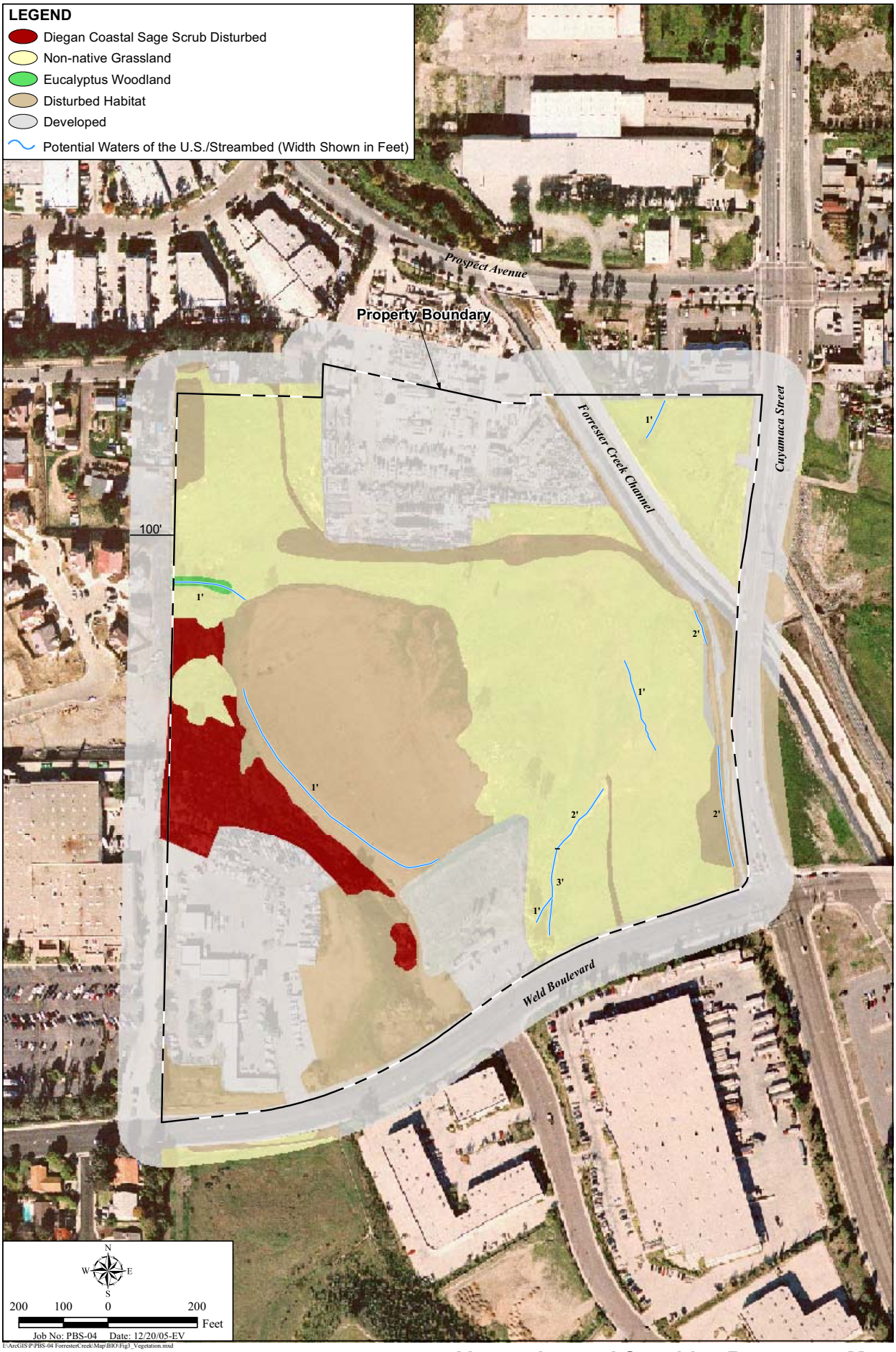
Figure 2



Vegetation and Sensitive Resources Map

FORRESTER CREEK

Figure 3

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3.1.2 Non-native Grassland

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oats (*Avena* sp.), foxtail chess (*Bromus madritensis* ssp. *rubens)*, ripgut grass (*Bromus diandrus)*, ryegrass (*Lolium* sp.), and mustard (*Brassica* sp.). Most of the annual introduced species that compromise the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These two factors, in addition to intensive grazing and agricultural practices in conjunction with severe droughts, have contributed to the successful invasion and establishment of these species and the replacement of native grasslands with an annual dominated non-native grassland (Jackson 1985).

On site, non-native grassland consists of oats, ripgut grass, soft chess (*Bromus hordeaceus*), foxtail chess, Bermuda grass (*Cynodon dactylon*), and crystalline iceplant (*Mesembryanthemum crystallinum*).

3.1.3 Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced species that produces a large amount of leaf and bark litter. The chemical and physical characteristics of this litter limit the ability of other species to grow in the understory, with a resultant decrease in floristic diversity. Eucalyptus trees have been planted historically for a variety of reasons, but they are particularly popular owing to its rapid growth rate. Given sufficient moisture, eucalyptus woodland has become naturalized and its range has expanded greatly to the detriment of many riparian areas. One small patch of eucalyptus woodland occurs in the western portion of the site.

3.1.4 Disturbed Habitat

Disturbed habitat on site includes land cleared of vegetation (e.g., dirt roads) or contains a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (e.g., previously cleared or abandoned landscaping). On site, disturbed habitat consists of the driving range and cleared dirt areas.

3.1.5 Developed Land

Developed land is where permanent structures and/or pavement have been placed that prevents the growth of vegetation or where landscaping is clearly tended and maintained. On site, developed land consists of the driving range building and parking lot, County of San Diego equipment repair facility, cement processing facility, and the culverted portion of Forrester Creek.

3.2 JURISDICTIONAL AREAS

A formal jurisdictional delineation has not been conducted on site. Eight potential jurisdictional non-wetland Waters of the U.S. (WUS)/streambeds were mapped on site during the vegetation mapping and general biological survey as shown on Figure 3.

3.3 PLANT SPECIES

A total of 42 plant species were observed during vegetation mapping and the general botanical survey. A list of plants observed to date is included in Appendix A.

3.4 ANIMAL SPECIES

A total of 12 animal species were observed/detected during vegetation mapping and the general wildlife survey. A complete list of animals observed or detected during these surveys is included in Appendix B. All of the animal species were identified by direct observation or vocalizations, the presence of scat and/or tracks, or other signs.

4.0 SENSITIVE RESOURCES

Sensitive resources are those defined as (1) habitat areas or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; and (2) species that have been given special recognition by federal, state, or local government agencies and organizations due to limited, declining, or threatened populations.

4.1 SENSITIVE VEGETATION COMMUNITIES

Two sensitive vegetation communities occur on site: disturbed Diegan coastal sage scrub and non-native grassland. In addition, eight potential WUS/streambeds occur on site within non-native grassland and disturbed habitat vegetation communities. WUS/streambeds are unvegetated channels regulated by the federal government under the Clean Water Act and by the State under the Lake and Streambed Alteration Program.

4.2 SENSITIVE PLANT SPECIES

No sensitive plant species were observed on site during the general biological survey.

Listed or Sensitive Plant Species with Potential to Occur

The following list of sensitive plant species have some potential to occur on site based on the site's location and presence of vegetation communities and soils (Table 2).

Table 2
LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR
San Diego thorn-mint (*Acanthomintha ilicifolia*)	FT/SE CNPS List 1B R-E-D 2-3-2	Low. Occurs in clay lenses in a variety of open habitats in San Diego County and Baja California, Mexico (Baja). Clay soils and appropriate habitat occur on site, but the site is heavily disturbed.

Table 2 (cont.)
LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR
Thread leaved brodeaia *(Brodiaea filifolia)*	FT/SE CNPS List 1B R-E-D 3-3-3	None. Occurs in clay soils within open chaparral, cismontane woodland, coastal scrub, native grassland, and vernal pools. Site is outside known range.
Willowy monardella (*Monardella viminea*)	FE/SE CNPS List 1B R-E-D 3-3-3	Low. Occurs in chaparral, coastal, and riparian habitat. Would have been observed if present.
San Diego ambrosia (*Ambrosia pumila*)	FE/-- CNPS List 1B R-E-D 3-3-2	Moderate. Found in disturbed areas within chaparral, coastal sage scrub, and grasslands in San Diego and Riverside counties and Baja. Would have likely been observed if present.
Dehesa bear grass (*Nolina interrata*)	--/SE CNPS List 1B R-E-D 3-3-2	None. Occurs in chaparral on gabbroic, metavolcanic, or serpentinite soils above 600 feet amsl. Appropriate habitat or soils do not occur on site.
Dunn's mariposa lily (*Calochortus dunnii*)	--/SR CNPS List 1B R-E-D 2-2-2	Low. Appropriate habitat (e.g., chaparral on gabbroic or metavolcanic soils) does not occur on site. In addition, this species occurs at elevations greater than 1,200 feet amsl.
Orcutt's brodiaea (*Brodiaea orcuttii*)	--/-- CNPS List 1B R-E-D 1-3-2	Very low. Associated with vernal pools and ephemeral streams and seeps. Occurs in Riverside and San Bernardino counties south to Baja. Habitat on site is not appropriate.
Lewis' sun cup *Camissonia lewisii*	--/-- CNPS List 3 R-E-D ?-?-2	Very low. This species grows in very sandy substrates near the beach, typically on beach bluffs.
Lakeside ceanothus (*Ceanothus cyaneus*)	--/-- CNPS List 1B R-E-D 3-2-2	None. Found in chaparral in San Diego County and into Baja at elevations greater than 770 feet amsl. The maximum elevation on site is 410 feet amsl. Would have been observed if present.
Smooth tarplant (*Centromadia pungens* ssp. *laevis*)	--/-- CNPS List 1B R-E-D 2-3-3	Low. Occurs in scrub habitats, meadows, seeps, playas, riparian woodlands, and grasslands in Orange, Riverside, San Bernardino, and San Diego counties. Would have been observed if present.
Orcutt's bird's beak (*Cordylanthus orcuttianus*)	--/-- CNPS List 2 R-E-D 3-3-1	Low. Occurs in seasonally dry drainages and upland adjacent to riparian habitat along the coast of southwestern San Diego County and Baja.
Small flowered morning glory (*Convolvulus simulans*)	--/-- CNPS List 4 R-E-D 1-2-2	Low. Occurs in coastal clay areas in openings of chaparral, sage scrub, and grasslands.

Table 2 (cont.) LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	STATUS*	POTENTIAL TO OCCUR
Variegated dudleya (*Dudleya variegata*)	--/-- CNPS List 1B R-E-D 2-2-2	Low. Found on dry hillsides and mesas in chaparral, coastal sage scrub, and grasslands as well as near vernal pools in San Diego County and Baja. Would have been observed if present.
Palmer's goldenbush (*Ericameria palmeri* ssp. *palmeri*)	--/-- CNPS List 2 R-E-D 3-2-1	None. Occurs in coastal sage scrub in southern San Diego County and Baja. Would have been observed if present.
San Diego barrel cactus (*Ferocactus viridescens*)	--/-- CNPS List 2 R-E-D 1-3-1	Low. Found on dry slopes in coastal sage scrub in San Diego County and Baja. Would have been observed if present.
Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*)	--/-- CNPS List 1B R-E-D 2-2-2	None. Occurs in chaparral and cismontane woodland at elevations greater than 980 feet amsl. Appropriate habitat does not occur on site.
San Diego goldenstar (*Muilla clevelandii*)	--/-- CNPS List 1B R-E-D 2-3-2	Low. Occurs in clay soils on dry mesas and hillsides in coastal sage scrub or chaparral in southwestern San Diego County and northwestern Baja.
Parry's tetracoccus (*Tetracoccus dioicus*)	--/-- CNPS List 1B R-E-D 3-2-2	None. Occurs in chaparral and coastal sage scrub at elevations greater than 500 feet amsl. Although appropriate habitat occurs on site, elevation of site is too low. Would have been observed if present.

4.3 SENSITIVE ANIMAL SPECIES

No sensitive animal species were observed on site during the general biological survey.

Listed or Sensitive Animal Species with Potential to Occur

Listed or sensitive animal species with potential to occur on site are listed in Table 3. The species are grouped into invertebrates, reptiles, birds, and mammals, and then alphabetized (by scientific name).

Table 3 LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	STATUS*	POTENTIAL TO OCCUR
INVERTEBRATES		
Quino checkerspot butterfly (*Euphydyras editha quino*)	FE/--	Low. Occurs in non-native grassland, disturbed habitat, and open areas within shrub communities. Host plants include dwarf plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta*) would not have been observed during the December survey. Site is outside required survey area.

Table 3 (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR
VERTEBRATES		
Amphibians		
Arroyo toad (*Bufo californicus)*	FE/CSC	Low to none. Found on banks with open canopy riparian forest characterized by willows, cottonwoods, or sycamores, but burrows in adjacent uplands during dry months. This habitat does not occur on site.
California red-legged frog (*Rana aurora draytonii)*	FT/CSC	Low to none. Appropriate habitat is characterized by dense, shrubby riparian vegetation with deep, slow-moving water. Believed extirpated from San Diego County (Jennings 2003).
Reptiles		
Southwestern pond turtle (*Clemmys marmorata pallida)*	--/CSC	Low to none. Almost entirely aquatic; occurs in freshwater marshes, creeks, ponds, rivers and streams, particularly where basking sites, deep water retreats, and egg laying areas are readily available.
Coast horned lizard (*Phrynosoma coronatum*)	--/CSC	Low to moderate. Occurs in coastal sage scrub, chaparral, open oak woodlands, and open coniferous forests. Important habitat components include basking sites, adequate scrub cover, areas of loose soil, and an abundance of harvester ants (*Pogonomyrmex* sp.), a primary prey item.
San Diego banded gecko (*Coleonyx variegatus abbotti*)	--/--	Low. Prefers coastal sage scrub and coastal chaparral habitats with rock outcrops and boulders.
Birds		
Cooper's hawk (*Accipiter cooperii*)	--/CSC	Low. Tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields. Appropriate habitat is limited in the area.
Sharp-shinned hawk (*Accipiter striatus*)	Nesting; --/CSC	Low. Occupies edges of deciduous or coniferous woodlands and thickets, which are not present on site. May migrate during the winter to other areas that provide adequate cover.
Tricolored blackbird (*Agelaius tricolor)*	--/CSC	Low. Marsh habitat near grasslands, pastures, and agricultural fields. No suitable habitat available on site.
Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*	--/CSC	Low to moderate. Coastal sage scrub and open chaparral, as well as shrubby grasslands.
Grasshopper sparrow (*Ammodramus savannarum*)	--/--	Moderate. Found in non-native grassland and coastal sage scrub habitat that has a mix of grasses and sage scrub species. Would likely have been detected if present.

Table 3 (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR
VERTEBRATES (cont.)		
Birds (cont.)		
Bell's sage sparrow (*Amphispiza belli belli*)	--/CSC	Low to moderate in coastal sage scrub. Species would likely have been detected if present.
Golden eagle (*Aquila chrysaetos*)	--/CSC, Fully Protected	Low. Nesting occurs on cliff ledges, or in trees on steep slopes, with foraging occurring primarily in grassland and sage scrub habitats; this species is usually not observed near development.
Ferruginous hawk (*Buteo regalis*)	--/CSC	Low. Uncommon winter visitor to grasslands and agricultural fields.
Swainson's hawk (*Buteo swainsoni*)	--/ST	Low. Once a common species in San Diego County, the Swainson's hawk is now a rare migrant. It is most commonly observed in the open grassland in Borrego Valley.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	--/CSC	Low. This species prefers the cactus thickets found in the coastal lowlands of San Diego County.
Turkey vulture (*Cathartes aura*)	--/--	Moderate to forage on site. Nests are made on ledges, rock outcrops, and in tall trees far from development. Forages for carrion.
Northern harrier (*Circus cyaneus*)	Nesting; --/CSC	Moderate to high. Prefers grasslands and other open habitats.
White-tailed kite (*Elanus leucurus*)	--/Fully Protected	Low. Tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields. Appropriate habitat is limited in the area.
California horned lark (*Eremophila alpestris actia*)	--/CSC	Low to moderate. Utilizes sandy beaches, agricultural fields, grassland, and open areas. Species would likely have been detected if present.
Loggerhead shrike (*Lanius ludovicianus*)	--/CSC	Low to moderate. Found in open habitats including grasslands, scrublands and ruderal areas with adequate perching locations. Species would likely have been detected if present.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/CSC	Low. Found in coastal Diegan sage scrub. Habitat on site is limited and disturbed.
Western bluebird (*Sialia mexicana*)	--/--	Low as a winter visitor on site. Associated with semi-open terrain and brush habitats. Often found in groups in fields or open woodlands.

Table 3 (cont.) LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	STATUS*	POTENTIAL TO OCCUR
VERTEBRATES (cont.)		
Birds (cont.)		
Burrowing owl (*Speotyto cunicularia*)	--/CSC	Low to moderate. Prefers grassland, open sage scrub, and desert habitats. Species would likely have been detected if present.
Mammals		
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	--/CSC	Low. Primarily associated with mature chaparral, but is known to occur in coastal sage scrub.
Greater western mastiff bat (*Eumops perotis californicus*)	--/CSC	Moderate to forage or roost on site. Foraging is concentrated around bodies of water but also includes coast live oak woodlands, coastal sage scrub, chaparral, and grassland habitats, often in rocky areas.
Pallid bat (*Antrozous pallidus*)	--/CSC	Low to forage or roost on site. Roosts in caves, mines, crevices, and abandoned buildings in deserts and cayons. Habitat on site is not appropriate.
Badger (*Taxidea taxus*)	--/CSC	Low. Prefers open plains and prairies, farmland, and sometimes edges of woods. Burrows would have likely been observed if present.

*A listing and explanation of status and sensitivity codes can be found in Appendix C

5.0 REGIONAL AND REGULATORY CONTEXT

5.1 REGULATORY ISSUES

Biological resources are subject to regulatory review by the federal government, State of California, and City. The federal government administers non-marine plant- and wildlife-related issues through the U.S. Fish and Wildlife Service (USFWS), while wetlands and Waters of the U.S. issues are administered by the U.S. Army Corps of Engineers (Corps). California law relating to wetland, water-related, and wildlife issues is administered by CDFG.

5.2 FEDERAL GOVERNMENT

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." 'Harm' and 'harass' are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d) of the federal ESA regulates actions that could jeopardize coastal California gnatcatchers. A special rule under Section 4(d) was finalized which authorizes "take" of coastal California gnatcatchers within approved Natural Communities Conservation Planning (NCCP) areas, which is administered by the State.

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (USFWS 2005). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of all WUS Permitting for projects filling WUS (including wetlands) is overseen by the Corps under Section 404 of the Clean Water Act. Projects could be permitted on an individual basis or be covered under one of several approved nationwide permits. Individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than six months) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. Impacts to Corps jurisdictional areas would require a permit under Section 404 and certification under Section 401 of the Clean Water Act. The California Regional Water Quality Control Board (RWQCB) provides water quality certification under Section 401 of the Clean Water Act. All Corps jurisdictional impacts must be mitigated in conformance with federal no net-loss standards.

5.3 STATE OF CALIFORNIA

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes CDFG to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The California ESA followed NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the California ESA.

The California Fish and Game Code (Sections 1600 et seq.) requires an agreement with CDFG for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement.

CEQA and its implementing guidelines (CEQA Guidelines) require discretionary projects with potentially significant effects (or impacts) on the environment to be submitted for environmental review. Mitigation for significant impacts to the environment is determined through the environmental review process in accordance with existing laws and regulations.

All CDFG jurisdictional impacts must be mitigated in conformance with state no net-loss standards. Mitigation for potentially significant impacts is required pursuant to CEQA for impacts to biological as well as other resources.

5.4 CITY OF EL CAJON

The project site is located within the City's Subarea Planning area of the Multiple Species Conservation Program (MSCP). The City's draft MSCP Subarea Plan (RECON 1998) addresses how the City proposes to conserve natural biotic communities (including coastal sage scrub) and sensitive plant and wildlife species pursuant to the California Natural Communities Conservation Planning Act of 1991 and the federal and state ESAs. According to the City's draft MSCP Subarea Plan, the site is mapped as disturbed habitat and is not identified for City conservation as a preserve. The draft Subarea Plan has not been adopted by the City Council or submitted to the USFWS and CDFG for review and approval.

Without an adopted Subarea Plan, take of coastal sage scrub (which is the habitat of the federally listed threatened coastal California gnatcatcher) would require that a federal ESA Section (4d) permit be processed through the City pursuant to City Council Policy C-12 in consultation with the USFWS and CDFG. Section 4(d) of the federal ESA authorizes incidental take of coastal California gnatcatcher habitat prior to adoption of a regional conservation plan through the issuance of an interim Habitat Loss Permit. If the City does not have any remaining take allowance under the 4(d) rule when the impacts to coastal sage scrub occur, then a request must be made for use of the County's 5 percent coastal sage scrub take allowance or an ESA Section 7 or 10(a) permit must be processed to allow take of coastal sage scrub.

5.5 NATURAL COMMUNITY CONSERVATION PLANNING GUIDELINES

Habitat Quality Evaluation

For take of coastal sage scrub under the ESA 4(d) process, the proposed project is required to be in conformance with NCCP Guidelines (CDFG 1997). The following is an evaluation of the coastal sage scrub on site using the NCCP Guidelines flowchart (CDFG 1993):

- Natural land supporting coastal sage scrub is present on site.
- It is not the densest in the subregion. Much larger blocks of coastal sage scrub occur in Mission Trails Regional Park to the northwest, Rattlesnake Mountain to the north, San Miguel Mountain and Sweetwater River Valley to the southeast, and the slopes of McGinty Mountain to the east.
- The project area is not in close proximity to a core area of coastal sage scrub; it exists in a small pocket and is primarily surrounded by residential or light industrial development to the north, south, and west; vacant land to the south; and an airport to the east.
- The habitat is not a linkage between two core areas, as development exists primarily on all sides of the property.
- The general biological survey did not observe or detect any NCCP target or narrow endemic species and (due to the isolation of the habitat present on site) it is unlikely that the site supports large populations of NCCP target or narrow endemic species.

As a result, the site would appear to have a low potential for long-term conservation.

6.0 IMPACTS

Impacts addressed in this section are considered either direct or indirect. A direct impact occurs when the primary effects of the project replace existing habitat with graded or developed areas. An indirect impact consists of secondary effects of a project such as noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, edge effects, human activity, animal behavioral changes, night lighting, and roadkill. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes longer to become apparent.

6.1 CRITERIA FOR DETERMINING SIGNIFICANCE

A significant impact under CEQA, with associated mitigation requirements, is assessed if the proposed project or program would:

- Have a substantial adverse effect (either directly or through habitat modifications) on any species identified as a candidate, sensitive, or as possessing special status in regional or local plans, policies, or regulations;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the USFWS or CDFG;
- Have a substantial adverse effect on federally or State jurisdictional areas through direct removal, filling, hydrological interruption or other means;
- Interfere substantially with the movement of any native resident, migratory fish or wildlife species, or with established native resident or migratory wildlife corridors; or
- Impede the use of native wildlife nursery sites or conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved state, regional, or local habitat conservation plan.

6.2 DIRECT IMPACTS

6.2.1 Sensitive Vegetation Communities

Implementation of the proposed project would directly and significantly impact 2.2 acres of disturbed Diegan coastal sage scrub and 13.6 acres of non-native grassland (Figure 4; Table 4). Impacts to these sensitive vegetation communities would be considered significant. However, eucalyptus woodland, disturbed habitat, and developed land are not considered sensitive vegetation communities; impacts to these communities would therefore not be considered significant.

Approximately 1.8 acres of non-native grassland, located in the northeast corner of the site, would not be impacted upon implementation of the proposed project. This land, however, also would not be placed within a biological open space easement, and is therefore considered impact neutral.

6.2.2 Jurisdictional Areas

As previously stated, a formal jurisdictional delineation has not been conducted on site. As such, it is unknown if the eight drainages on site fall within Corps or CDFG jurisdiction. Any impacts to jurisdictional areas would be significant.

Vegetation and Sensitive Resources Map/Impacts

FORRESTER CREEK

Figure 4

HELIX

Table 4 IMPACTS TO VEGETATION COMMUNITIES		
Vegetation Community*	Acreage†	
	Existing	Impacts
Disturbed Diegan coastal sage scrub (32500)	2.2	2.2
Non-native grassland (42200)	15.4	13.6
Eucalyptus woodland (11100)	<0.1	<0.1
Disturbed habitat (11300)	11.5	11.4
Developed land (12000)	12.3	11.1
TOTAL	41.4	38.3

*Numeric vegetation community codes are from Holland (1986)
†Totals reflect rounding

6.2.3 Sensitive Plant Species

Since no sensitive plant species occur on site, impacts will not be an issue.

6.2.4 Sensitive Animal Species

Implementation of the proposed project would directly impact raptor foraging habitat (e.g., non-native grassland) and raptor nesting habitat (e.g., eucalyptus woodland). Impacts to these habitats would therefore be significant.

6.3 INDIRECT IMPACTS

Potential indirect impacts from project construction could include noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, human activity/edge effects, animal behavioral changes, and night lighting.

6.3.1 Construction Noise

Construction noise from such sources as clearing and grading would be a temporary impact to local wildlife. Noise-related impacts would be considered significant if sensitive species such as raptors were displaced from their nests and failed to breed. Birds and other species may be temporarily displaced from the vicinity of the construction area but would be expected to return following grading. Raptors nesting within any area impacted by construction noise exceeding 60 dB(A) L_{eq} may be significantly impacted.

6.3.2 Water Quality

Water quality can be adversely affected by potential surface runoff and sedimentation. The use of petroleum products (i.e., fuels, oils, and lubricants) could potentially contaminate surface water and affect biological resources. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend on these resources. The project would be subject to the City's stormwater regulations. Therefore, impacts to water quality would be less than significant.

6.3.3 Fugitive Dust

Fugitive dust produced by construction has the potential to disperse onto preserved vegetation, which may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. This in turn could affect animals dependent on these plants (e.g., seed-eating rodents). Fugitive dust also may make plants unsuitable as habitat for insects and birds. As part of the project description, active construction areas and unpaved surfaces would be watered pursuant to City grading permit requirements to minimize dust generation; therefore, the indirect impacts of dust generation on biological resources would be less than significant.

6.3.4 Non-native Plant Species

Non-native plants could colonize areas disturbed by construction and could potentially spread into adjacent native habitats. Many non-native plants are highly invasive and can displace native vegetation (reducing native species diversity), potentially increase flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife that are dependent on the native plant species (i.e., mustard). Given that the project proposes development of 38.3 acres of the 41.4-acre site and that the remaining 3.1 acres consist of non-native grassland, disturbed habitat, and developed land, further colonization by non-native plant species in non-impact areas is considered less than significant.

6.3.5 Human Activity/Edge Effects

Urbanization and increases in human activity can result in degradation to sensitive vegetation by fragmenting the land and forming edges between developed areas and habitat. These edges make it easier for non-native plant species to invade native habitats, and for native and non-native predators to access prey that may have otherwise been protected within large, contiguous blocks of habitat. In addition, secondary extinctions through disruption of predator-prey, parasite-host, and plant-pollinator relations can also occur (Soulé 1986). However, indirect impacts caused by increased human activity and edge effects are expected to be less than significant since portions of the project site are presently being used and the area surrounding the site is primarily urbanized.

6.3.6 Night Lighting

Night lighting exposes wildlife species to an unnatural light regime and may alter their behavior patterns, which could result in a loss of species diversity. Night lighting on native habitats can also provide nocturnal predators with an unnatural advantage over their prey, which could cause an increased loss in native wildlife. On site, night lighting is not expected to result in a significant impact as the area is primarily developed with infrastructure and associated lighting.

7.0 MITIGATION MEASURES

The project would impact sensitive vegetation communities and species significantly through direct loss and could cause significant indirect impacts as well. Mitigation ratios used below have been developed in part based on NCCP Guidelines (CDFG 1997). Mitigation for direct impacts to sensitive vegetation communities on site shall be implemented prior to or concurrently with impacts, as

appropriate. Indirect impacts shall be avoided or mitigated through implementation of mitigation measures prior to or immediately following the adverse effect.

Impact 7.1 Implementation of the proposed project would significantly impact 2.2 acres of disturbed Diegan coastal sage scrub.

Mitigation Measure

(MM) 7.1 Impacts to 2.2 acres of disturbed Diegan coastal sage scrub shall be mitigated at a 1:1 ratio for a total of 2.2 acres of required mitigation (Table 5). Mitigation shall consist of acquisition of 2.2 acres of Diegan coastal sage scrub. The wildlife agencies and City shall approve the off-site mitigation site.

Table 5
VEGETATION COMMUNITY IMPACT AND MITIGATION SUMMARY

Vegetation Community	Existing (acre)	Proposed Project Impacts (acre)	Mitigation Ratio	Required Mitigation (acre)
Disturbed Diegan coastal sage scrub (32500)	2.2	2.2	1:1	2.2
Non-native grassland (42200)	15.4	13.6	0.5:1	6.8
Total	**17.6**	**15.8**	--	**9.0**

Impact 7.2 Implementation of the proposed project would significantly impact 13.6 acres of non-native grassland.

MM 7.2 Impacts to 13.6 acres of non-native grassland shall be mitigated at a 0.5:1 ratio for a total of 6.8 acres of required mitigation (Table 5). Mitigation shall consist of off-site acquisition of 6.8 acres of non-native grassland. The wildlife agencies and City shall approve the off-site mitigation site.

Impact 7.3 Implementation of the proposed project would directly impact raptor foraging habitat (e.g., non-native grassland) and raptor nesting habitat (e.g., eucalyptus woodland).

MM 7.3 Impacts to the raptor foraging habitat shall be mitigated through implementation of MM 7.2. Mitigation for impacts to raptor nesting habitat shall consist of the following: no clearing of eucalyptus woodland shall take place during the tree-nesting raptor breeding season (December through June). If clearing is proposed to take place during the breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if raptor nests (or nest building or other breeding/nesting behavior) occurs within the eucalyptus woodland. If there are no raptors nesting (which includes nest building or other breeding/nesting behavior) within this area, clearing shall be allowed to proceed. But if raptors are observed nesting (or displaying breeding/nesting behavior), construction shall be postponed

until a qualified biologist determines that all nesting (or breeding/nesting behavior) has ceased or until after June 30.

Impact 7.4 Construction noise from such sources as clearing and grading would be a temporary impact to local wildlife, including raptors.

MM 7.4 Similar to MM 7.3 above, no grading or clearing within 500 feet of a raptor nest during the raptor breeding season (December through June) shall occur. All grading permits, improvement plans, and final maps shall state the same. If clearing or grading would occur during the raptor breeding season (December through June), a pre-construction survey shall be conducted by a qualified biologist to determine if raptors occur within the areas impacted by noise. If there are no raptors nesting (which includes nest building or other breeding/nesting behavior) within this area, development shall be allowed to proceed. However, if raptors are observed nesting (or displaying breeding/nesting behavior) within 500 feet of construction activities, construction shall (1) be postponed until a qualified biologist determines that all nesting (or breeding/nesting behavior) has ceased or until after June 30; or (2) a temporary noise barrier or berm shall be constructed at the edge of the development footprint to ensure that noise levels are reduced to below 60 dB(A) L_{eq}. Alternatively, the use of construction equipment could be scheduled to keep noise levels below 60 dB(A) L_{eq} in lieu of or in concert with a wall or other noise barrier.

8.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork and/or preparation of this report.

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