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Project No. PDS2014-TM-5593; PDS2015-AD-15-036
Environmental Log No. PDS2014-ER-14-08-014

BIOLOGICAL RESOURCES LETTER REPORT

Prepared for the County of San Diego

Project Name: Trinity Meadows Subdivision,

Dear Mike,

I have prepared the following letter report at your request in response to the scoping letter from County staff dated January 16, 2014.

The Trinity Meadows Project (see Figures and accompanying Biological Resources Map) encompasses 12.51 gross acres (APN 234-291-11), in an unincorporated area of San Diego County situated near the southern portion of the City of Escondido. The project proposes to subdivide the parcel into 22 residential lots.

PROJECT LOCATION AND SETTING

The project site is located at the northwest quadrant of the intersection of Bear Valley Parkway and Highway 78 (Figures 1 and 2). The approximate USGS coordinates of the site are 33°06.5'N, 117°03'W as determined on-site by Global Positioning System (GPS) receiver (Escondido 7.5 minute series quadrangle, see Figure 3). The elevation of the site is approximately 650 feet ASL. The property is bounded on the west and north by developed residential parcels similar in size and nature to those proposed Figures 5 and 6). To the east, across Bear Valley Parkway, is an undeveloped parcel containing an unnamed intermittent Blue Line Stream that eventually feeds into Lake Hodges. No intact native vegetation communities occur on the project site. The project is not located within an existing MSCP Subarea Plan area.

METHODS

I visited the site on 7 June 2013 to conduct a directed survey for Orcutt's brodiaea *Brodiaea orcutti*, a County sensitive plant species (See below). To conduct a general assessment of biological resources, I visited the project site again on 7 July 2013. The conditions for observation during the latter visit were excellent, with no cloud cover, no impediments to visibility, temperatures in the low 60s, and 0-3 knots west wind. The visit lasted from

approximately 0815 to 1030. During my visit, I was able to examine the entire project site and adjacent areas. My observations on-site were recorded as they were made, and form the basis of this report and the site Biological Resources Map. Animals were identified using scat, tracks, burrows, vocalizations, or by direct observation with the aid of 10X42 Leica binoculars. Vegetation mapping was conducted in accordance with vegetation community definitions as described in Holland (1986) and Oberbauer (1996). In addition, vegetation mapping on-site was aided by the use of a digital color satellite photograph.

Sensitive Species and Habitats

Prior to a site visit, a variety of sources are reviewed to ascertain the possible occurrence of sensitive species at the project site. First, soil types (Bowman 1973) are checked to determine if the site contains soils known to support sensitive plant species. Records searches for the USGS quadrangle and surrounding quads are done of the California Natural Diversity Data Base (CNDDB) and California Native Plant Society (CNPS) On-Line Inventory of Rare and Endangered Plants. Any sensitive species known to occur in the vicinity are given special attention, and available natural history information is reviewed. Seasonal occurrence patterns (*e.g.,* annual plants, migratory birds) are factored into survey plans in the event that site visits are made during time periods when certain species are not present or conspicuous. Information sources include the Jepson Manual (1993), Rare Plants of San Diego (Reiser 1994), A Flora of San Diego County, California (Beauchamp 1986), San Diego Native Plants (Lightner 2006), U.S. Fish and Wildlife Service Recovery Plans for Threatened/Endangered Species, the San Diego County Bird Atlas (Unitt 2004), and numerous other references, publications, and on-line resources.

A list of sensitive species with potential to occur on the site (See Appendix D) is also reviewed prior to field work. All species on the list are reviewed, and those species requiring directed or focused protocol surveys are noted and given appropriate attention.

During site visits, all habitats are assessed for their suitability for occupation by any sensitive species with potential to occur.

RESULTS[1]

Soils

Based on soil conservation service maps (Bowman 1973, Figure 4), the soil type for the project site is Fallbrook-Vista sandy loam, 15-30% slopes (FvE). Although a detailed soil analysis is beyond the scope of this report, on-site examination appeared to verify this principal soil type.

[1] Scientific and common names for plant species are derived from The Jepson Manual, 1993; scientific and common names for birds from the A.O.U. Check-list of North American Birds, 1998.

Habitats / Vegetation Communities (See Biological Resources Map)

Non-Native Grassland (Holland Code 42200)

The entire net project site is occupied with Non-Native Grassland (Appendix C - Photographs). This area is apparently frequently cleared/mowed for fire abatement purposes. Typical invasive weedy grasses and forbs dominate, including species from the genera *Avena, Brassica, Bromus,* and *Cyondon.* Dove weed *Eremocarpus setigerus* also occurs in the area.

Disturbed Habitat (Holland Code 11300)

Along the frontages of Bear Valley Parkway and San Pasqual Valley Road there is a strip of land approximately 12 feet wide that falls within the right of way for the respective roadways (Figure 5). This area has been disturbed by roadway maintenance and construction, and is not within the net acreage of the site.

A complete list of plants observed on the project site is provided in Appendix A.

Wildlife

During the site survey several common resident bird species were observed. These included American Kestrel *Falco sparverius,* Mourning Dove *Zenaida macroura*, Northern Mockingbird *Mimus polyglottos*, and House Finch *Carpodacus mexicanus*.

The only mammals recorded from the site were California Ground Squirrel *Spermophilus beecheyi* and Botta's Pocket Gopher *Thomomys bottae*. Side-blotched Lizard *Uta stansburiana* was the only reptile or amphibian detected.

The scarcity of wildlife species on the site is likely attributable to the highly disturbed nature of the site and the surrounding existing development.

Special Status Species

Directed surveys and habitat assessments for species with potential to occur were conducted. In general, the site lacks appropriate habitat for most sensitive species. One species considered sensitive by the County of San Diego has a moderate potential for occurring on the site. This is:

Turkey Vultures *Cathartes aura* forage for carrion over a variety of habitats. They are common migrants and winter residents in San Diego County, and were a formerly more common breeding species. The site may be occasionally used as foraging habitat for this species. However, impacts to this species are not anticipated. Turkey vultures are highly sensitive to disturbance at their nests. No suitable nesting habitat occurs on, near, or in the general vicinity of the project site. This species is not included in the U.S. Fish and Wildlife Service's comprehensive list of Birds of Conservation Concern for the Southern California Bird Conservation Region (USFWS 2002). No impacts to this species are anticipated.

In addition to the species discussed above, the following discussion is provided regarding species requiring directed surveys:

The **Burrowing Owl** *Athene cunicularia* Owl is likely the most endangered bird species currently inhabiting San Diego County. It's distribution is extremely limited, with the largest local population occurring on North Island Naval Air Station in Coronado. The species has declined dramatically in the County in the last 20 years. This species is colonial, and highly is dependent on burrows created by ground squirrels. It is a conspicuous species, and could be readily detected during site surveys.

No Burrowing owls, and no signs of Burrowing Owls, were detected during the site surveys or are considered likely to occur. No impacts to this species are anticipated as a result of site development.

Grasshopper sparrows *Ammodramus savannarum* in San Diego County are restricted to native grassland, which has been significantly reduced since Europeans settled here. It is a Bird Species of Special Concern (Shuford and Gardali 2008) in California. This species was looked for during the directed surveys conducted on 7 June 2014, and none were found. Impacts to this species are not anticipated.

Orcutt's brodiaea is known to occur on suitable soils in the region. The Brodiaea, monocots in the Lily Family, are substantially declining throughout their Southern California range. They typically grow at the edges of vernal pools and in flood plains or areas with appropriate moist (mostly clay) soils. The stalk and flower sprout from a corm, and are unlikely to be detected except during its short flowering season, typically around May and June.

I surveyed the site for this species by slowly walking east-west strip transects through the parcel at intervals of no more than four meters. This allowed complete visual coverage of the survey area. The survey was conducted on 7 June 2013. The survey took 1.5 hours to complete.

To ensure that the survey date was appropriate, a north county site with known Orcutt's brodiaea populations was also monitored. At the reference site, it was in full bloom at the time of the survey.

No Orcutt's brodiaea were detected on the parcel surveyed. The soil type on the parcel is not conducive for brodiaea, and the presence of abundant California Ground Squirrels *Spermophilus beecheyi* and Botta's Pocket Gophers *Thomomys bottae* (which feed on the corms) likely precludes the site from being occupied by Brodiaea.

The **Quino Checkerspot Butterfly** *Euphydryas editha quino* was listed as an endangered species on January 16, 1997. The Quino is best thought of as a two-phase insect: the larvae (caterpillar) and the flying adult (butterfly). The larvae feed virtually exclusively on a small ephemeral annual plant - Dot-seed Plantain *Plantago erecta*. The Plantain competes poorly with other plants and tends, therefore, to be found on open soils, frequently on clays. A closed canopy

of either shrubs or weedy annuals and perennials will preclude the Plantain from a location. In the laboratory, the larvae also feed on a small suite of plant species from the Monkey-flower family (*Scrophulariaceae*), but they have not been found on these plants in the wild (with one or two rare exceptions). The adult Quino can be found in association with the larval food plants - it is here that the adult hatches from its pupal case and it is here that the female lays her eggs. The species also exhibits a behavior known as "hilltopping." When they hatch from their pupa, adult males fly to the nearest hilltop (local topographic high point) where they patrol awaiting the arrival of female Quino. Mating occurs on these hilltops with the males then continuing their patrols and the females returning to the areas of larval food plants where they lay their eggs.

Given the life history outlined above, it can be logically concluded that a survey for the Quino Checkerspot Butterfly would also be in two phases: monitoring of stands of the food plant and monitoring hilltopping locations, both during the flight season of the butterfly (Fish and Wildlife Service Protocol, 2002).

The site is not suitable for use by Quino Checkerspot Butterflies based on the absence of suitable habitat (hilltopping areas) and larval host plant species (Appendix A). Because of a lack of suitable habitat and the absence of the host plant, focused protocol surveys for this species on the project site are not recommended.

No other sensitive species are considered likely to occur on the project site.

Large mammals, such as mule deer *Odocoileus hemionus* and mountain lion *Felis concolor* prefer large unfragmented natural areas that offer extensive adequate forage or hunting opportunities as well as the opportunity for movement across long distances. Because the project site is situated within a highly developed, essentially urban area, these opportunities are very limited. As shown in Figures 5 and 6, the site is completely surrounded by extensive, long-established development. Opportunities for large mammal use and movement occur nearby in the San Pasqual Valley (along the San Dieguito River), and in the nearby 55,000 acre Rancho Guejito. The project site is generally unsuitable for use by large mammal species because of its small size, generally exposed nature, and isolation from larger natural habitat areas.

OTHER UNIQUE FEATURES / RESOURCES

Wildlife Movement Corridors and Nursery Sites

A wildlife corridor can be defined as a linear landscape feature allowing animal movement between two larger patches of habitat. Connections between extensive areas of open space are integral to maintain regional biodiversity and population viability. In the absence of corridors, habitats become isolated islands surrounded by development. Fragmented habitats support significantly lower numbers of species and increase the likelihood of local extinction for select species when they are restricted to small isolated areas of habitat. Areas that serve as wildlife movement corridors are considered biologically sensitive.

Wildlife corridors can be defined in two categories: regional wildlife corridors and local corridors. Regional corridors link large sections of undeveloped land and serve to maintain

genetic diversity among wide-ranging populations. Local corridors permit movement between smaller patches of habitat. These linkages effectively allow a series of small, connected patches to function as a larger block of habitat and perhaps result in the occurrence of higher species diversity or numbers of individuals than would otherwise occur in isolation. Target species for wildlife corridor assessment typically include species such as bobcat, mountain lion, and mule deer.

To assess the function and value of a particular site as a wildlife corridor, it is necessary to determine what areas of larger habitats it connects, and to examine the quality of the corridor as it passes through a variety of settings. High quality corridors connect extensive areas of native habitat, and are not degraded to the point where free movement of wildlife is significantly constrained. Typically, high quality corridors consist of an unbroken stretch of undisturbed native habitat.

The project site is surrounded on three sides by long-established residential development. This TM is essentially an urban infill project. Existing residential development effectively precludes wildlife movement to, from, or through the project site. The unnamed intermittent Blue Line Stream east of the project site and Bear Valley Parkway likely serves as a local minor wildlife movement area. As such, no significant impacts to wildlife movement corridors are anticipated as a result of project implementation.

Native Wildlife Nursery Sites

Native Wildlife Nursery Sites, which are considered sensitive resources that require protection, are defined in the County of San Diego Guidelines for Determining Significance - Biological Resources as “sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies”. Features such as individual raptor or woodrat nests do constitute places where wildlife *concentrate*, thus they do not meet this definition and are therefore not considered Native Wildlife Nursery Sites. Any nesting raptors near the site will be protected by seasonal grading and clearing limitations. No Native Wildlife Nursery Sites occur on or near the project site, and none will be impacted by project implementation.

JURISDICTIONAL WETLANDS AND WATERWAYS

The County of San Diego requires that wetland surveys be completed using the wetlands definition within the County’s Resource Protection Ordinance (RPO). This definition includes:

> All lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are “wetlands”:
>
> > a. At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);
> >
> > b. The substratum is predominantly undrained hydric soil; or

> c. An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

Other pertinent definitions from the RPO include:

> Mature Riparian Woodland - A grouping of sycamores, cottonwoods and/or oak trees having substantial biological value, where at least ten of the trees have a diameter of six inches or greater.
>
> Riparian Habitat - An environment associated with the banks and other land adjacent to freshwater bodies, rivers, streams, creeks, estuaries, and surface-emergent aquifers (such as springs, seeps, and oases). Riparian habitat is characterized by plant and animal communities which require high soil moisture conditions maintained by transported freshwater in excess of that otherwise available through local precipitation.

It should also be noted that the County's definition of wetlands varies from the U.S. Army Corps of Engineers' (USACE) definition. The USACE frequently requires that formal or informal wetland delineations be conducted under guidelines set forth in the 1987 Corps of Engineers Wetland Delineation Manual. The USACE defines a wetland as "an area… inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Typically, USACE wetlands are characterized by the presence of hydrophytic vegetation, hydric soils, and wetland hydrology.

In addition to regulating jurisdictional wetlands, Section 404 of the Clean Water Act (33 U.S.C. 1344) requires authorization for discharges of dredged or fill material into Waters of the United States. For non-tidal Waters of the U.S. the extent of jurisdiction is defined as the Ordinary High Water Mark, which is defined as: "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation or presence of litter and debris."

Thus, an area determined to be a non-wetland may still be under USACE jurisdiction if certain criteria are met. To aid in identifying characteristics of Waters of the U.S., the USACE has prepared guidelines (USACE 2001) and a matrix detailing potential Waters of the U.S. based on apparent flow regimes, geomorphic features, and surface flow indicators. In addition, determination that a wetland or water body is a Waters of the United States also requires that the area in question is subject to interstate commerce. These criteria were considered as they apply to the project site.

California Department of Fish and Game Wetlands

Typically, the extent of CDFW wetlands is determined by the limits of riparian vegetation as it extends from a stream, creek, river, pond, lake, or other water feature. Often, CDFW and RPO wetlands have identical boundaries.

The project site contains no features meeting any state or federal jurisdictional wetland criteria, the County RPO definition, or Waters of the United States.

REGULATORY FRAMEWORK

The project site is not situated within the existing Multiple Species Conservation Program (MSCP) Subarea Plan. Accordingly, impacts to sensitive biological resources are regulated pursuant to the California Environmental Quality Act (CEQA) and applicable County policies.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

The California Environmental Quality Act requires that projects avoid or adequately mitigate for the loss of sensitive species and habitats. Such avoidance or mitigation enables County staff to make a finding that all project impacts are below or will be reduced to a level below significant and to issue a Negative Declaration or Mitigated Negative Declaration for the proposed project.

Direct impacts occur when biological resources are altered or destroyed during the course of, or as a result of, project implementation. Examples of such impacts include removal or grading of vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Indirect impacts may include elevated levels of noise or lighting, change in surface water hydrology within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive species. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to construction and would not extend beyond project-associated construction, including revegetation of temporarily disturbed areas adjacent to native habitats.

The CEQA Guidelines define “significant effect on the environment” as a “substantial, or potentially substantial adverse change in the environment.” The CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project will:

A. Substantially affect an endangered, rare or threatened species of animal or plant or the habitat of the species.

B. Interfere substantially with the movement of any resident or migratory fish or wildlife species to the extent that it adversely affects the population dynamics of the species.

C. Substantially diminish habitat for fish, wildlife, or plants.

The project as proposed will impact a sensitive vegetation community. A tabulation of project impacts is presented in Table 1.

Table 1. Existing, impacted, and preserved habitat on the project site.

VEGETATION COMMUNITY	ACREAGE ON-SITE	IMPACTED ACREAGE	MITIGATION RATIO	MITIGATION REQUIRED	PRESERVED ON-SITE	IMPACT NEUTRAL	OFF-SITE MITIGATION
Non-Native Grassland	12.51	12.02	0.5:1	6.01	0	0	6.01
Disturbed Habitat	0.49	N / A	N / A	0	0	0	0
Total	12.02*	12.02		6.01	0	0	6.01

*** Net acreage**

No off-site impacts will result from implementation of the project as proposed.

Cumulative Impacts

Cumulative impacts consider the potential regional effects of a project and how a project may affect an ecosystem or one of its sensitive components beyond the project limits and on a regional scale. Section 15064 of the State CEQA Guidelines governs the determination of significant environmental impacts caused by a project. The evaluation of a project's cumulative impacts is discussed in Section 15064(h) of the CEQA Guidelines. Cumulative impacts must be discussed when project impacts, although individually limited, may be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects affecting the same resource (CEQA Guidelines §15064(h)(1)).

A lead agency may determine in an initial study that "a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant". When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than "cumulatively considerable" (CEQA Guidelines §15064(h)(2)). The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable (CEQA Guidelines §15064 (h)(4)).

To assess potential cumulative impacts for this project, several factors were considered. First, the project site is surrounded by an extensive area of existing low-density residential development. The site is not located within a proposed Pre-Approved Mitigation Area (PAMA), suggesting that in the regional context, it will not be an area slated for long-term preservation. Thus, take of sensitive upland habitat in the area (and required off-site mitigation) is likely to be

supported as a means of funding and acquiring important tracts of habitat that will ultimately lead to assembly of a regional preserve system consisting of core habitat areas and the linkages that connect them, including habitat that can support candidate, sensitive, or special status species, none of which are found on the project site.

In the absence of adequate mitigation, the Trinity Meadows project would have the potential to significantly degrade the quality of the environment. Other effects that would be considered cumulatively considerable would include substantial reduction the habitat of a fish or wildlife species that cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or significantly reduce the number or restrict the range of a rare or endangered plant or animal species. None of these other effects apply to the Trinity project.

In addition, similar projects in the vicinity that have either been approved, are in process, or were in process but were withdrawn were examined to assess their actual or potential contributions to cumulative impacts. Projects within a radius of two miles were deemed sufficient for this analysis, because that area encompasses most of the projects sharing similar existing land uses and habitat types. The projects are:

TPM 20517 - Approved in 2002. This 17 acre parcel project resulted in the loss of 1.9 acres of Non-Native Grassland, but this loss was mitigated by the purchase of off-site credits, thus reducing the impacts to a level below significant.

TPM 20492 - Approved in 2005. This project resulted in the loss of 3.41 acres of Non-Native Grassland, but this loss was mitigated by the purchase of off-site credits, thus reducing the impacts to a level below significant.

TPM 20280 - Approved in 2002. This project was deemed by the County to have no direct or indirect impacts to sensitive resources, and no resulting contribution to cumulative impacts in the region.

TPM 20678 - Withdrawn in 2003. Because this project was withdrawn it will have no impacts and will not contribute to cumulative losses of sensitive habitat within the region.

TPM 20455 - Withdrawn in 2000. Because this project was withdrawn it will have no impacts and will not contribute to cumulative losses of sensitive habitat within the region.

TM 5162 - Withdrawn in 2001. Because this project was withdrawn it will have no impacts and will not contribute to cumulative losses of sensitive habitat within the region.

These projects, together with impacts from this project, would result in losses of Non-Native Grassland in the study area of less than 17.9 acres. However, this is not considered cumulatively significant, because mitigation for these impacts will contribute to the preservation of biologically viable off-site habitat that can support candidate, sensitive, or special status species, none of which are found on the project site. In addition, the adoption of the new County General Plan adequately mitigates for such losses.

As stated, the project could result in cumulatively considerable impacts (in the absence of adequate mitigation). However, because all project impacts will be mitigated to a level that is "less than significant", the Trinity Meadows project will not result in impacts that are cumulatively considerable.

Mitigation and Recommendations

Impacts to 12.02 acres of Non-Native Grassland is considered significant and will require mitigation to reduce impacts to a level below significant. The project site is not located within a proposed Pre-Approved Mitigation Area (PAMA) within the draft North County MSCP Sub-Area Plan, and does not qualify as a Biological Resources Core Area (BRCA). Accordingly, the County requires impacts to Non-Native Grassland to be mitigated at a 0.5:1 ratio. At this ratio a total of 6.01 acres of Non-Native Grassland will be conserved. Mitigation will be accomplished by the purchase off-site of suitable habitat credits within a County approved mitigation bank in the region. A determination of where mitigation will occur will be made prior to final project approval.

Credits for Non-native Grassland mitigation are currently available at the Daley Ranch Mitigation Bank in Escondido for $35,000 an acre. The credits are privately owned by Michael Crews (760) 535-6165 and available for use on County projects.

Limitations on clearing and grading activities during the bird nesting season are recommended to reduce impacts to avian resources. If it is determined by a qualified biologist that no nesting is occurring within 300 feet (for passerine birds) or 500 feet (for raptors) of construction activity, such activities may proceed.

In order to prevent any adverse impacts to off-site resources, it is recommended that adequate measures (Best Management Practices) be taken during construction to prevent runoff from entering drainages or other properties. These measures should be sufficient to reduce any possible indirect impacts of the proposed project to a level well below significant.

Impacts to sensitive biological resources will be mitigated to below a level of significance as defined by CEQA.

Thank you very much for the opportunity to conduct this work and prepare this report. Please contact me if I can provide any additional information or provide clarification.

Sincerely,

William T. Everett
Biological Consultant

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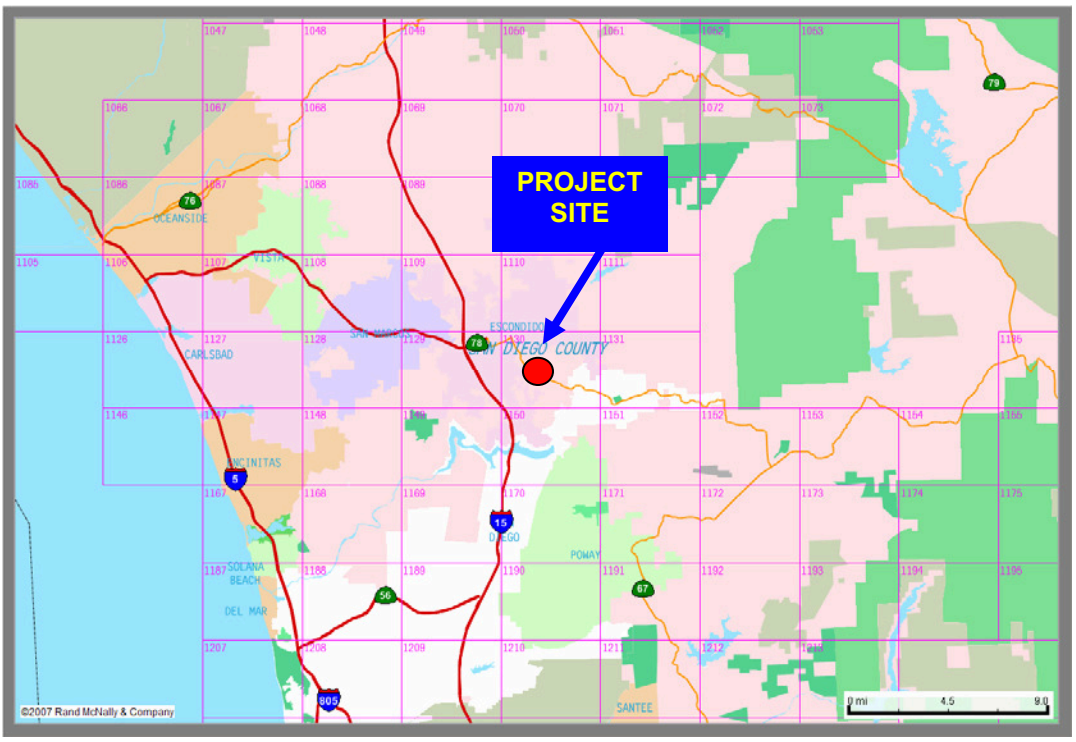

Figure 1. Location of project site in regional context. Thomas Bros. Map page #1130, C4.

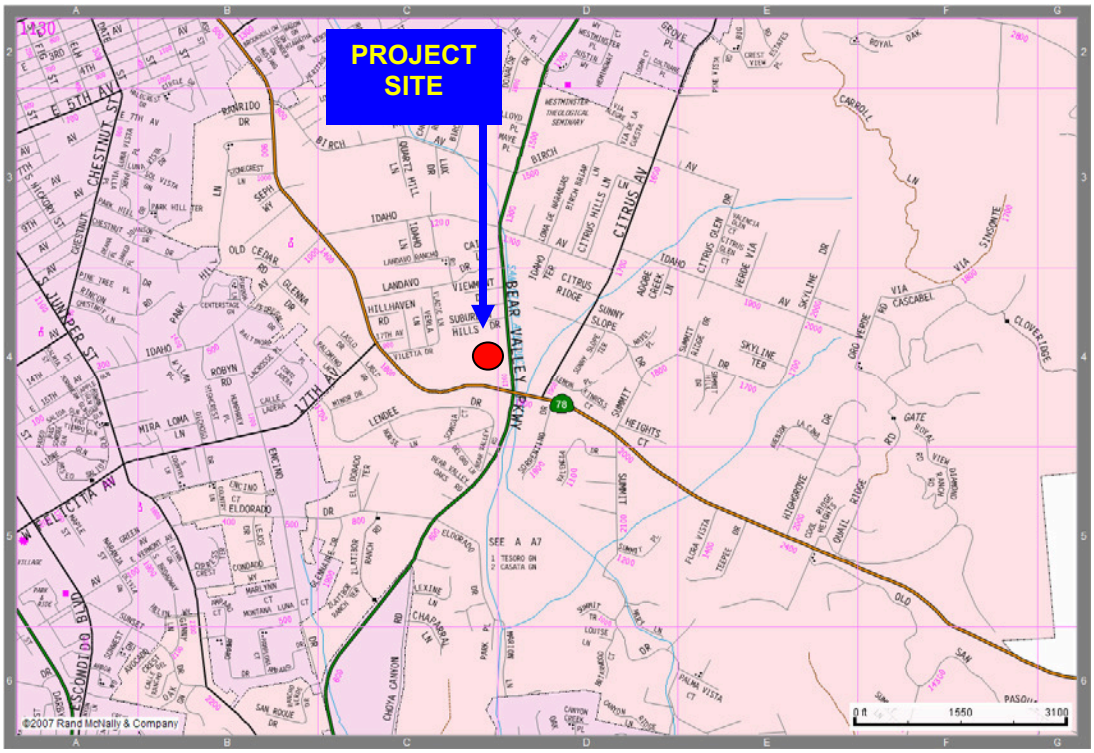

Figure 2. Detail location map of project site. Thomas Bros. Map page #1130, C4.

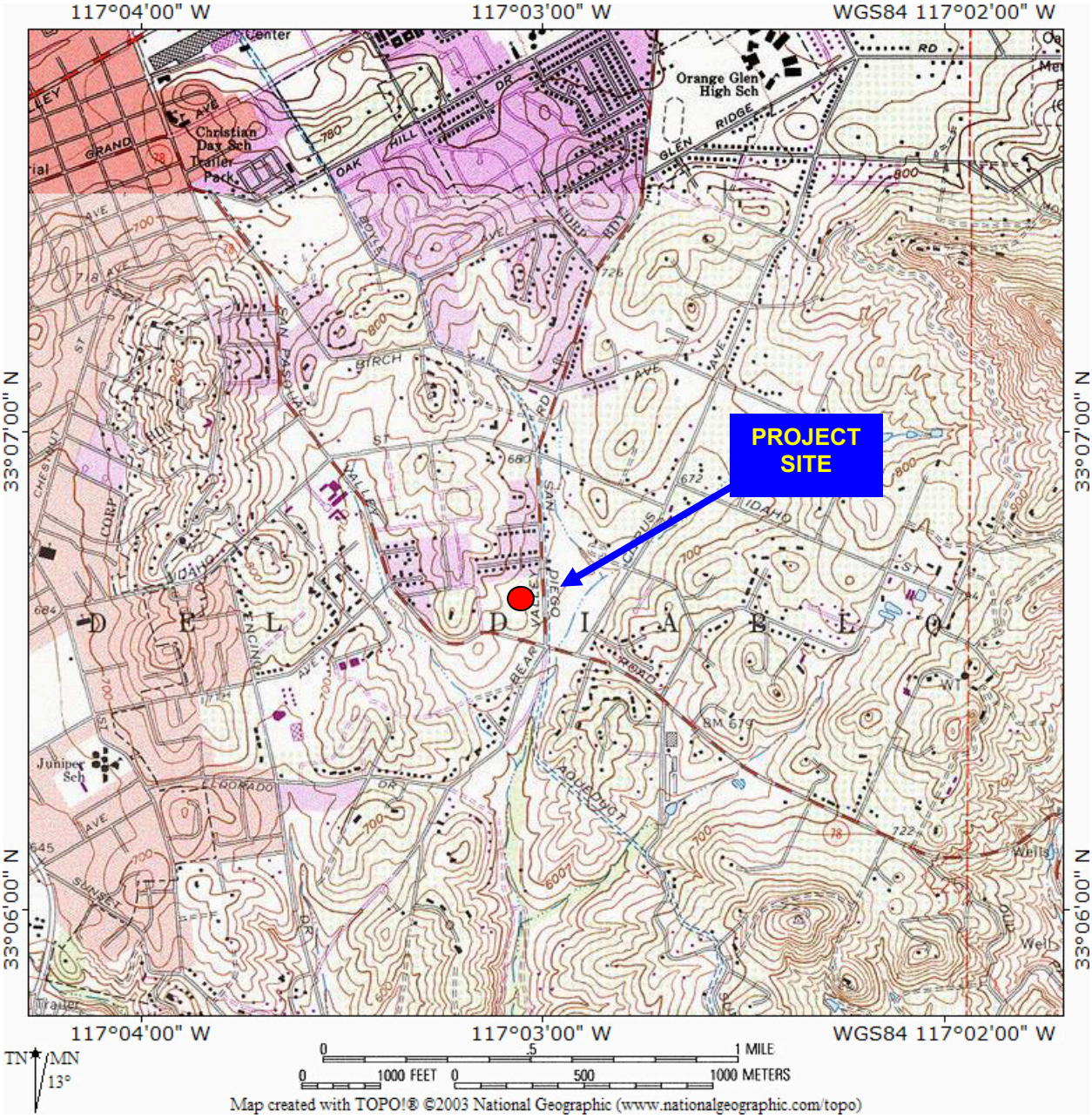

Figure 3. Topographical map showing project site location. Taken from USGS Escondido 7.5 Minute series quadrangle.

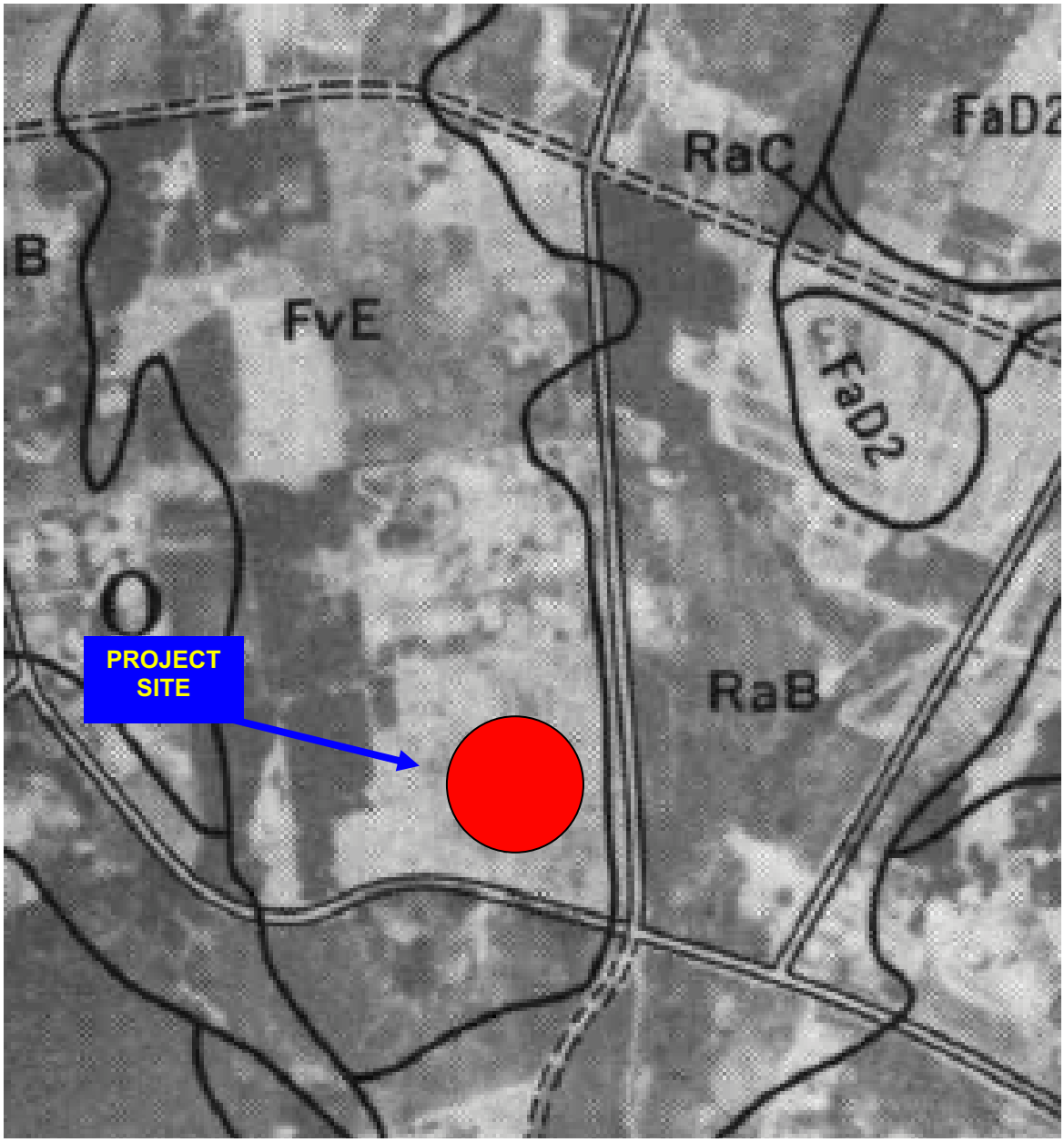

Figure 4. Soils map of the vicinity of the project site (Bowman, 1973).

Figure 5. Satellite photograph of project site (photograph by SANDAG/SanGIS 2013), showing parcel boundaries for project site (outlined in red, in center) and adjacent properties in yellow. Top of photo is true north.

Figure 6. Color satellite image of project site and surrounding development.

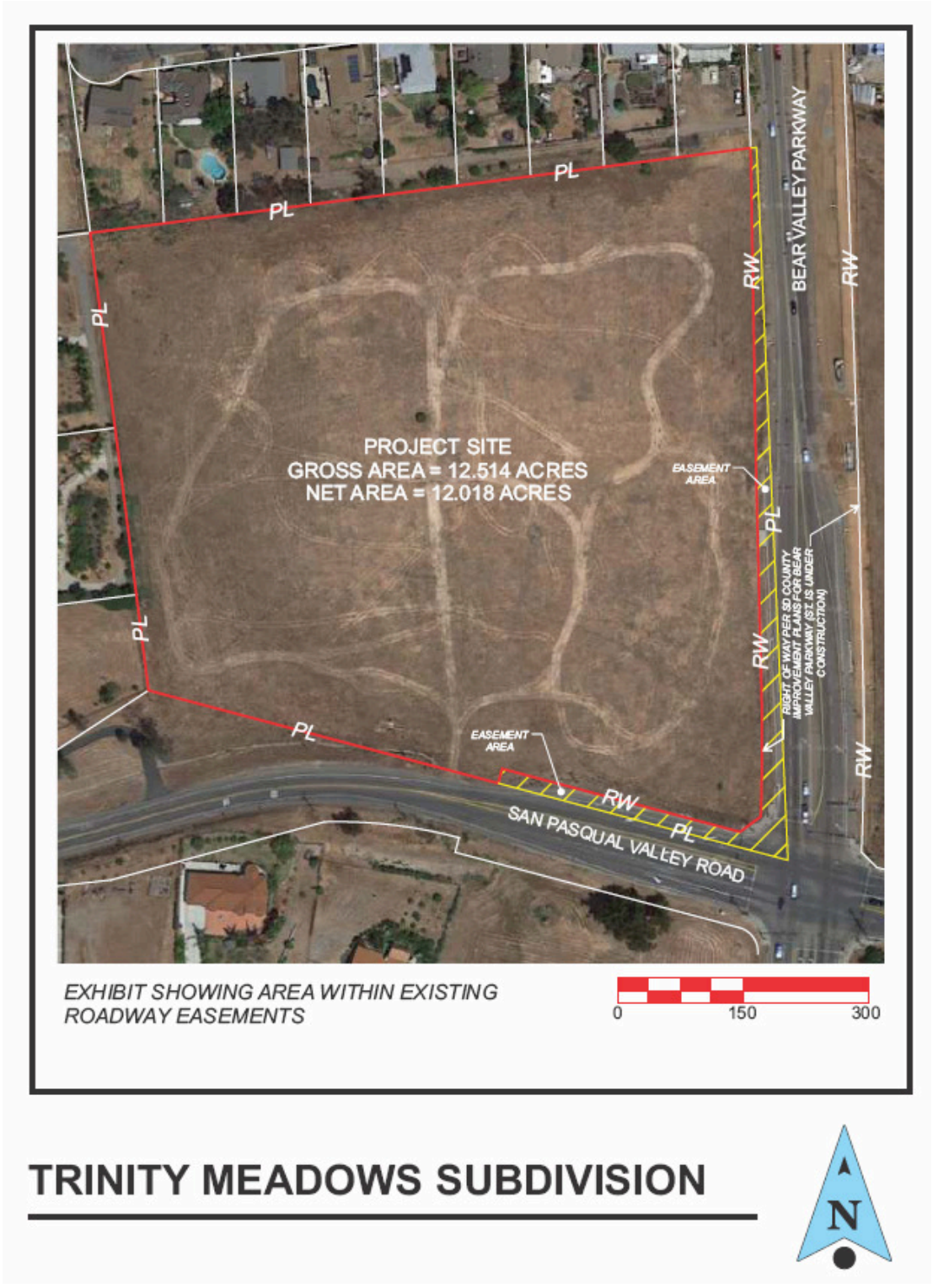

Figure 7. Color satellite image of project site.

APPENDIX A

PLANT SPECIES OBSERVED ON THE SITE

ANGIOSPERMS (DICOTS)

Anacardiaceae - Sumac Family

* Schinus sp.
Pepper Tree

Asteraceae (Compositae) - Sunflower Family

* Conyza bonariensis
Conyza
Heterotheca grandiflora
Telegraph Weed

Brassicaceae (Cruciferae) - Mustard Family

* Brassica sp.
Mustard

Cactaceae - Cactus Family

Opuntia indicus
Indian Fig

Caprifoliaceae - Honeysuckle Family

Sambucus mexicana
Elderberry

Chenopodiaceae - Goosefoot Family

* Salsola tragus
Russian Thistle

Convolvulaceae - Morning-glory Family

Calystegia sp.
Morning Glory

Euphorbiaceae - Spurge Family

Eremocarpus setigerus
Dove Weed

Geraniaceae - Geranium Family

* Erodium sp.
Filaree

Myrtaceae - Myrtle Family

* Eucalyptus sp.
Eucalyptus

Solanaceae - Nightshade Family

Datura sp.
Jimson Weed
* Nicotiana glauca
Tree Tobacco

Violaceae - Violet Family

Tribulus terrestris
Puncture Vine

ANGIOSPERMS (MONOCOTS)

Poaceae (Gramineae) - Grass Family

* Avena barbata
Wild Oats
Bromus carinatus var. carinatus
California Brome
* Bromus diandrus
Ripgut Grass
* Bromus hordeaceus
Soft Chess
* Bromus madritensis ssp. rubens
Red Brome

* Cynodon dactylon
Bermuda Grass

* Pennisetum setaceum
Fountain Grass

* = Non-Native Species

APPENDIX B

WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

BIRDS

American Kestrel	*Falco sparverius*
Mourning Dove	*Zenaida macroura*
Northern Mockingbird	*Mimus polyglottos*
House Finch	*Carpodacus mexicanus*

MAMMALS

California Ground Squirrel *Spermophilus beecheyi*	Observed
Botta's Pocket Gopher *Thomomys bottae*	Burrows

AMPHIBIANS AND REPTILES

Side-blotched Lizard	*Uta stansburiana*

APPENDIX C

PHOTOGRAPHS OF THE PROJECT SITE

All photographs taken 2013 by W.T. Everett

Photograph 1. View from southeast corner of the site looking northwest.

Photograph 2. View from southwest corner of the site looking northeast.

Photograph 3. View from northwest corner of the site looking south.

Photograph 4. View from southwest corner of the site looking northeast.

APPENDIX D

COUNTY LIST OF SENSITIVE SPECIES WITH POTENTIAL TO OCCUR ON THE PROJECT SITE

Legend

Status

1 = Federally Endangered
2 = Federally Threatened
3 = State Endangered
4 = State Threatened
5 = State Rare
6 = MSCP Narrow Endemic
7 = Not Listed
8 = County Sensitive Plant List Designation (A-D)
Ext = Extirpated

Potential to Occur On-site

Note: Species shown in **bold** are those for which Directed Surveys were conducted

L = Low
M = Moderate
H = High
U = Unknown (Sufficient data are not available on the status, distribution, abundance, or natural history of the species to make a reliable determination of the probability of occurring on-site)

Rationale

1 = Would likely have been detected during directed surveys if present
2 = Appropriate suitable habitat not present on-site
3 = Insufficient natural history information is available to determine if presence is likely

Common Name	Scientific Name	Status	Observed On-Site (Y or N)	Potential to Occur On-site	Habitat Preferences
Ambrosia pumila	**San Diego ambrosia**	**1, 6, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Riparian, Vernal Pools**

Acanthomintha ilicifolia	**San Diego thornmint**	**2, 3**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools**
Achnatherum diegoensis	San Diego needlegrass	7, 8A	N	L - 2	Coastal Sage Scrub, Grassland
Brodiaea orcutti	**Orcutt's brodiaea**	**7, 8A**	**N**	**L - 2**	**Grassland, Riparian, Oak Woodland, Chamise Chaparral, Vernal Pools**
Centromadia pungens laevis	**Smooth tarplant**	**7, 8A**	**N**	**L- 2**	**Grassland**
Holocarpha virgata elongate	Graceful tarplant	7, 8D	N	L - 2	Grassland
Lepidium virginicum robinsonii	**Robinson pepper grass**	**7, 8A**	**N**	**L - 2**	**Grassland**
Muilla clevelandii	**San Diego goldenstar**	**7, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Riparian, Chamise Chaparral**
Danaus plexippus	Monarch butterfly	7	N	L - 2	Grassland, Oak Woodland, Montane Meadow
Euphydryas editha quino	**Quino checkerspot butterfly**	**1**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Desert Scrub, Vernal Pools**
Scaphiopus hammondii	Western spadefoot toad	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Freshwater Marsh, Vernal Pools

Coleonyx variegates blainvillei	**San Diego banded gecko**	**7**	**N**	**L - 2**	**Riparian, Freshwater Marsh, Montane Meadow, Lakes and Bays**
Phrynosoma coronatum blainvillei	San Diego horned lizard	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral, Mixed Conifer
Cnemidophorus hyperythrus	**Orange-throated whiptail**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral**
Anniella pulchra pulchra	Silvery legless lizard	7	N	L - 2	Coastal Sage Scrub, Grassland, Riparian, Coastal or Desert Dune
Eumeces skiltonianius interparietalis	Coronado skink	7	N	L - 2	Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh
Myotis yumanensis	Yuma myotis	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays

Corynorhinus townsendii	Townsend's big-eared bat	7	N	L - 2	Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Antrozous pallidus	Pallid bat	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Nyctinomops femorosaccus	Pocketed free-tailed bat	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays

Nyctinomops macrotis	Big free-tailed bat	7	N	U - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
Eumops perotis californicus	Greater western mastiff bat	7	N	L - 3	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh, Desert Scrub, Desert Wash, Salt or Alkali Marsh, Vernal Pools, Montane Meadow, Lakes and Bays
Lepus californicus bennettii	San Diego black-tailed jackrabbit	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Chaetodipus californicus femoralis	Dulzura California pocket mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer

Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral, Desert Scrub, Desert Wash
Onychomys torridus Ramona	Southern grasshopper mouse	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise
Odocoileus hemionus	Southern mule deer	7	N	L -2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Taxidea taxus	American badger	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Ardea herodias	Great Blue Heron	7	N	L - 2	Grassland, Freshwater Marsh, Lakes and Bays
Circus cyaneus hudsonius	**Northern Harrier**	**7**	**N**	**L - 2**	**Grassland, Freshwater Marsh, Salt or Alkali Marsh**
Elanus caeruleus	**Black-shouldered Kite**	**7**	**N**	**L - 2**	**Grassland, Riparian**
Accipiter cooperi	**Cooper's Hawk**	**7**	**N**	**L - 2**	**Grassland, Riparian, Oak Woodland**

Aquila chrysaetos	**Golden Eagle**	**6**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper**
Falco mexicanus	**Prairie Falcon**	**7**	**N**	**L - 2**	**Desert Scrub, Desert Wash**
Cathartes aura	**Turkey Vulture**	**7**	**N**	**M**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest**
Athene cunicularia hypugea	**Burrowing Owl**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Desert Wash, Coastal or Desert Dune**
Larus californicus bennettii	California Gull (Non-breeding)	7	N	L - 2	Not Specified
Lanius ludovicianus	**Loggerhead Shrike**	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Desert Scrub, Desert Wash**
Eremophila alpestris actis	Horned Lark	7	N	L - 2	Grassland, Montane Meadow
Ammodramus savannarum	**Grasshopper Sparrow**	**7**	**N**	**L - 2**	**Grassland**

APPENDIX E

PREPARER QUALIFICATIONS

William T. Everett is a research, consulting, and conservation biologist with more than 37 years experience in the San Diego environment and around the world. He has logged more than 14,000 hours of field work, all detailed with field notes. In the 1970's Bill apprenticed in the study of chaparral ecology under Frank Gander, the retired but renown premier California botanist of the 1930s and 40s. Although his specialty is ornithology, Bill has a long-standing interest in all endangered species management and conservation issues. As President then Conservation Chairman of the San Diego Chapter of the Audubon Society in the late 1970s, he gained a keen understanding of the conservation challenges facing a growing Southern California. He subsequently became one of the first Biological Consultants certified by the County of San Diego in the 1980s. Bill is a Fellow of the National Association of Environmental Professionals (NAEP) and subscribes to the NAEP Code of Ethics and Standards of Practice for Environmental Professionals.

Bill Everett has published numerous scientific articles and conducted research in Southern California, Alaska, Antarctica, Baja California, South America, and throughout the tropical Pacific Ocean. In 1977, in recognition of his accomplishments, he was appointed as a Research Associate of the Department of Birds and Mammals of the San Diego Natural History Museum, a position he holds to this day. In 1990 he was elected as a Research Fellow of the Zoological Society of San Diego, and in 1988 was appointed as the Senior Conservation Biologist of the Western Foundation of Vertebrate Zoology. The Royal Geographic Society of London elected Bill as a Fellow in 1996, following his election as a Fellow of the Explorers Club in 1990.

Hired as a biologist for the U.S. Fish and Wildlife Service in 1977, Bill conducted research on endangered Peregrine Falcons in Northern California at a time when their continued existence was questionable. His interest in threatened species led to publication by the Audubon Society in 1979 of his paper entitled "Threatened, Declining and Sensitive Bird Species in San Diego County" (Sketches 36:1-2). This paper contained the first published account of the decline of the California Gnatcatcher.

Beyond the Southern California area, Bill has prepared the seabird impacts sections for the Draft and Final Environmental Impact Statements for Hawaii-based Pelagic Fisheries of the Western Tropical Pacific Ocean (2001), received a National Science Foundation major grant to lead an International Biocomplexity Survey and Expedition to Isla Guadalupe, Baja California, Mexico (2000), led the effort to save North America's most endangered bird species, the San Clemente Loggerhead Shrike (1991-1997), and currently heads up efforts to restore bird populations on Wake Atoll and Christmas Island in the central Pacific.

Bill holds a U.S. Fish and Wildlife Master Bird Banding Permit (#22378) with Endangered Species Authorization, and California Gnatcatcher Survey Authorization Permit # TE-788036. He received his Masters Degree from the University of San Diego in 1991, and completed a Post-Graduate Program at Harvard University's John F. Kennedy School of Government in 1997.

Bill served as a member of the Conservation and Research Committee of the Zoological Society of San Diego since the committee was first established. In 1990, he founded the Endangered Species Recovery Council (www.esrc.org), an international organization of scientists and conservationists dedicated to finding solutions to the problem of species extinctions. He continues as President of the organization.

In May 2002 Bill was honored in New York as a first recipient of the Explorers Club "Champions of Wildlife" award.