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20 February 2023

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FORENSIC BIOLOGICAL RESOURCES LETTER REPORT

Project Name: Rancho Serena Project, Rancho Santa Fe, PDS2019-MPA-19-001

Dear Ali,

I have prepared this Biological Resources Report at your request and in response to correspondence with County staff and several meetings with representatives of the Wildlife Agencies.

The Rancho Serena project (see Figures and accompanying Biological Resources Map) is the application for an after-the-fact permit to resolve a prior grading violation, an application for a Tentative Parcel Map to create two legal parcels, and application for a Major Use Permit to allow for a Senior Care Facility. The site is bisected by the 130 foot wide Second San Diego Aqueduct easement and a 200 foot wide SDG&E High Power Line easement. The parcel (APN 264-110-30) contains 10.1 acres. I previously prepared a Forensic Biological Resources Report (dated 27 February 2015) for the now-abandoned Virissimo Project PDS2014-LDGRMJ-00017. This report provides an update based on more recent field investigations and the new proposed project design.

PROJECT LOCATION AND SETTING

The project site is located on the east side of Via De Las Flores across the street from The Bridges golf course (Figures 1 and 2). The approximate USGS coordinates of the site are 33°03’N, 117°11’W as determined on-site by Global Positioning System (GPS) receiver (Rancho Santa Fe 7.5 minute series quadrangle, see Figure 3). The elevation of the site ranges from 280 to 650 feet, with topography consisting of a west-facing gentle slope increasing to the east on the site. The property is bounded on the west by the golf course, on the north and south by rural residential development, and on the east by undeveloped land (Figures 4 and 5). The project site is located within the County's draft North County Multiple Species Conservation Program (MSCP), with the eastern portion in land designated as Pre-Approved Mitigation Area (PAMA) and the western portion in land designated as Outside the PAMA.

METHODS AND LIMITATIONS

To conduct an assessment of biological resources for the project as currently designed, I visited the project site on 15 May 2019. The conditions for observation during the visit were excellent, with 100% cloud cover, no impediments to visibility, temperatures in the low 60s, and no wind. The visit lasted from approximately 1200 to 1715. During my visit, I was able to examine the entire project site and adjacent areas. My observations 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.

In addition, directed surveys for sensitive plant species were conducted on 22 April and 3 June 2019. These surveys were conducted by slowly walking parallel transects five to ten meters apart, depending on the density of the vegetation.

Due to the time period the site was visited within it was unlikely that any crepuscular or nocturnal wildlife species would have been observed. Also, due to the time of year of the site visits were made wildlife migratory bird species that typically winter in the region would not have been observed.

Vegetation mapping was conducted in accordance with vegetation community definitions as described in Oberbauer, et al. (2008). In addition, vegetation mapping on-site was aided by the use of a digital color satellite photograph. It should be noted that all vegetation community mapping is verified on the ground to the greatest degree possible in the absence of a systematic land survey. All vegetation areas and boundaries are best estimates subject to final delineation by a licensed professional land surveyor. Forensic mapping of the historical extent and disturbance of natural vegetation was aided by examination of historic aerial imagery back to 1983.

Sensitive Species and Habitats

Prior to the site visit, a variety of sources were reviewed to ascertain the possible occurrence of sensitive species at the project site. First, soil types (Bowman 1973) were checked to determine if the site contains soils known to support sensitive plant species. Records searches for the USGS quadrangle and surrounding quads were 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 were given special attention, and available natural history information is reviewed. Seasonal occurrence patterns (*e.g.*, annual plants, migratory birds) were factored into survey plans in the event that site visits were made during time periods when certain species are not present or conspicuous. Information sources include the Jepson Manual (2012), Rare Plants of San Diego (Reiser 1994), A Flora of San Diego County, California (Beauchamp 1986), San Diego Native Plants (Lightner 2011), 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 was also reviewed prior to field work (See Appendix D). All species on the list were reviewed, and those species requiring directed or focused protocol surveys were noted and given appropriate attention. In the field, potentially sensitive plant species not readily identified *in situ* were photographed and/or collected for identification via keys or other methods.

During site visits, all habitats were 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), the soil type for the project site is Huerhuero loam, 2-9% slopes (HrC). Although a detailed soil analysis is beyond the scope of this report, on-site examination appeared to verify this principal soil type.

Habitats / Vegetation Communities (See Biological Resources Map)

Diegan Coastal Sage Scrub (Holland Code 32520 - 8.81 acres)

This habitat type currently occupies that portion of the project site east of the aqueduct easement. The area contains typical CSS species, including California sagebrush *Artemesia californica*, California buckwheat *Eriogonum fasciculatum* ssp. *fasciculatum*, laurel sumac *Malosma laurina* and other common CSS plant species. This vegetation community type is considered County Resource Protection Ordinance Sensitive Habitat Land as well as being considered a sensitive habitat type by the state and federal Wildlife Agencies.

Disturbed Habitat (Holland Code 11300 - 1.30 acres)

Based on historic aerial and satellite imagery, sometime in early 2008 the area west of the aqueduct easement was cleared and graded, creating two level construction pads. Analysis of images prior to 1993 shows a cleared area, likely used for storage, along the north property line where the pads are now located (Figure 6). Also shown is a small area in the southwest corner of the site that was kept free of vegetation. It is also evident that much of the pad areas were cleared of vegetation as far back as the early 1980s, well before the pads were created. Disturbed Habitat is not considered a sensitive habitat type by the County or state and federal Wildlife Agencies.

The current condition of the pad area is disturbed, with mostly bare ground and scattered invasive weedy grasses and forbs, including species from the genera *Avena, Brassica, Bromus, Erodium,* and *Hordeum.*

[1] Scientific and common names for plant species are derived from The Jepson Manual, 2012; scientific and common names for birds from the A.O.U. Check-list of North American Birds, 1998, and Supplements to date; scientific and common names for mammals from the San Diego County Mammal Atlas, 2017.

Based on forensic analysis, the graded pad areas, with the exception of the two small areas mentioned above, were likely Coastal Sage Scrub (See Biological Resources Map).

Wildlife

During the site surveys eight common resident and migratory bird species were observed. The only mammal recorded from the site was Botta's Pocket Gopher *Thomomys bottae*. The only reptile or amphibian recorded was Western Fence Lizard *Sceloporus occidentalis*. Additional common animal species likely occur on-site. A complete list of wildlife species detected is provided in Appendix B.

Special Status Species

Focused surveys, directed surveys, and habitat assessments for sensitive species with potential to occur were conducted. During the current site assessment three species considered sensitive were observed:

The **California Gnatcatcher** *Polioptila californica* is known to occur in the vicinity (Subarea HCP) so special attention to this species is warranted. The California Gnatcatcher is a federal threatened species, a state species of concern, and is a "target species" of the NCCP process. This species is a non-migratory resident whose range covers the coastal plains and foothills of Southern California and northern Baja California. In San Diego County, it is widespread in coastal lowlands below about 2,000 feet elevation and typically occurs in or near CSS. The California Gnatcatcher is seriously declining due to loss of habitat. Between 85% and 90% of this species' habitat has been lost to urban or agricultural development. It is almost extirpated from Ventura, San Bernadino, and Los Angeles counties. The population is estimated to be just under 5000 pairs. San Diego County appears to be the center of abundance within the United States for this species.

Although no gnatcatchers were detected during protocol surveys of the project site (See Appendix E), a pair were later detected during several subsequent visits to the project site. The California Gnatcatcher is a Group 1 Species on the County of San Diego Sensitive Animal List.

San Diego Goldenstars *Bloomeria clevelandii* were observed during the first spring 2019 survey for sensitive plants. Approximately 50 individuals were observed in the CSS area between the Water Authority and SDG&E easements (See Biological Resources Map). A subsequent survey was conducted on 22 April 2020 and only four individuals were observed at that time. Although not listed as threatened or endangered by state or federal agencies, the San Diego Goldenstar is included in List A on the County's Sensitive Plant List Designation. Project implementation (as currently designed) will result in the loss of all the individual plants on the project site.

A single **Nuttall's Scrub Oak** *Quercus dumosa* was observed on the project site east of the aqueduct easement. This species is on the County's List A of sensitive plant species. The project will impact this individual plant.

Two additional species considered sensitive by the County of San Diego were detected during site surveys in 2014. These are:

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 formerly a more common breeding species. Turkey Vultures occur throughout the Americas, with an estimated population of 4,500,000 individuals occupying at least 11,000,000 square miles. The project site may be occasionally used as foraging habitat for this species. Turkey Vultures do not build nests as they prefer crevices in cliff faces or very steep densely vegetated slopes where they nest on the ground. Turkey vultures are only 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 was observed flying overhead during the previous (2014) biological site reconnaissance. Because of the small size of the project site, the highly mobile nature of this species and the large nearby areas undisturbed foraging habitat, no significant impacts to this species are anticipated. The Turkey Vulture is a Group 1 Species on the County of San Diego Sensitive Animal List.

Southern Mule Deer *Odocoileus hemionus* are common residents of a variety of Montane and cismontaine habitats in San Diego County and are legally hunted on both public and private lands. They are highly adaptable and even occur along the coast at Torrey Pines State Preserve. Small populations isolated by development may eventually disappear, which is apparently the reason it is considered a sensitive species. The project site bounded on the east extensive areas of preserved habitat. Given this, it is unlikely that the species will be negatively impacted by the proposed project. The Southern Mule Deer is a Group 2 Species on the County of San Diego Sensitive Animal List

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

Large mammals, such as Mule Deer and Mountain Lion *Felis concolor* typically prefer large unfragmented natural areas that offer extensive adequate forage or hunting opportunities as well as the opportunity for movement across long distances. Deer scat and a shed antler were found in the CSS east of the aqueduct easement.

Because the area to be impacted is situated within an essentially developed area, opportunities for large mammal use are very limited. As shown in Figures 4 and 5, the site is surrounded on three sides by extensive, long-established development. The golf course to the west of the site is protected by an eight foot high chain link fence which precludes wildlife from entering or traversing. Opportunities for large mammal use and movement occur nearby in Escondido Creek and the San Dieguito River. Also, east of the project site is a large undisturbed area more suitable for movement by large mammal species that functions as a north/south regional wildlife corridor.

Due to the high density of the CSS on the project site it is unlikely that **raptor species** would forage within the property and there is no suitable raptor nesting habitat available on the site. The site would provide foraging opportunities for other resident and **migratory bird species** and potentially be used as nesting habitat for these species.

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.

Most of the area to be developed is surrounded on three sides by long-established residential development (See Figures 4 and 5). The golf course to the west of the site is protected by an eight foot high chain link fence which precludes wildlife from entering. To the east of the project site is a significant regional wildlife corridor, which will be expanded, preserved, and managed in perpetuity as partial mitigation for project impacts.

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. No Native Wildlife Nursery Sites occur on or near the project site, and none will be impacted by project implementation.

Jurisdictional Wetlands/Waters

No jurisdictional wetlands and/or waters occur on or near the project site.

PROJECT DRAFT MSCP COMPATIBILITY

The conversion of natural habitats in the unincorporated County of San Diego is currently regulated through Subarea Planning efforts in compliance with the California Natural Community Conservation Program (NCCP) process, and in accordance with County Guidelines based on the California Environmental Quality Act (CEQA) and various County policies. The parcel is not within the approved South County Multiple Species Conservation Program (MSCP) but is contiguous on the east with the Plan. Within the draft North County MSCP Subarea the portion of the project site east of the aqueduct easement is designated as a proposed Pre-Approved Mitigation Area (PAMA). The western portion of the property is not located within a proposed PAMA.

PROJECT IMPACTS

CEQA 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.

Indirect Impacts

There is the potential for indirect impacts to occur as a result of implementation of the proposed project. The areas where indirect impacts have the potential to occur could extend from the development areas into sensitive habitat due to such activities as excessive landscape irrigation, vegetation trampling outside developed areas, and introduction of non-native species (*e.g.*, Argentine ants, cats, non-native invasive plant species). These indirect impacts are referred to as "edge effects." There is the potential for indirect impacts on animals as a result of an increase in noise, dust, and light during permitted activities and from vehicle use. These indirect impacts are considered unavoidable due to the nature of the project and existing surrounding land uses.

Indirect impacts from edge effects are considered adverse, but not significant, because BMPs and other conditions imposed on the project mitigate indirect impacts, and existing edge effects and disturbance are already impacting the site. Additional effects, if any, would be incremental and less than significant.

Direct Impacts

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 clearing and grading resulting from project implementation result in the removal of ~50 San Diego Goldenstar plants and a single Nuttall's Scrub Oak plant. In addition to impacts to the San Diego Goldenstar and Nuttall's Scrub Oak, the project as proposed will impact a sensitive vegetation community (CSS) and removal habitat likely used by the California Gnatcatcher. A tabulation of project impacts is presented in Table 1. Forensic calculations were based on 2006 and earlier color satellite and aerial images.

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

VEGETATION COMMUNITY	ACREAGE ON-SITE*	IMPACTED ACREAGE	IMPACT NEUTRAL**	TOTAL MITIGATION REQUIRED (Ratio)	PRESERVED ON-SITE	OFF-SITE MITIGATION (Ratio)
Diegan Coastal Sage Scrub	8.81	6.36	2.26	19.08 (3:1)	1.99	17.09 (3:1)
Disturbed Habitat	1.30	N / A	N / A	0	N / A	N / A
Total	10.1	6.36	2.26	19.08	1.99	17.09

* Prior to previous unpermitted grading conducted on the site.
** Within existing utility easements.

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 on three sides existing development. Areas to be impacted outside of the proposed Pre-Approved Mitigation Area (PAMA), suggest that in the regional context, they would not be slated for long-term preservation. Thus, take of sensitive upland habitat in the area (and required 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, at least three of which are currently found on the project site.

In the absence of adequate mitigation, the Rancho Serena 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 Rancho Serena project.

This project would result in losses of Coastal Sage Scrub. However, this is not considered cumulatively significant, because mitigation for these impacts will contribute to the preservation of biologically viable habitat that can support candidate, sensitive, or special status species.

As currently designed, 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 Rancho Serena project will not result in impacts that are cumulatively considerable.

MITIGATION AND RECOMMENDATIONS

Impacts to 6.36 acres of CSS is considered significant and will require mitigation to reduce impacts to a level below significant and will require issuance of a Habitat Loss Permit (HLP). The eastern portion of the project site is located within a draft Pre-Approved Mitigation Area (PAMA) within the Draft North County MSCP Sub-area Plan and qualifies as a Biological Resources Core Area (BRCA). The Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993) provide an Evaluation Logic Flow Chart to determine the potential value for long-term conservation of areas containing Coastal Sage Scrub (CSS). The following is an analysis of the value of the CSS impacted on the project site:

1. Is natural vegetation present? Yes

2. Is CSS present? Yes

3. Is land most dense CSS in Subregion? No

4. Is land close to Higher Value District? Yes

Conclusion: Land has Intermediate Potential Value for Long-term Conservation

Based on the above, the appropriate mitigation ratio for CSS impacts on the project site is 3:1. At a 3:1 ratio a total of 19.08 acres of mitigation is required. The following mitigation strategy has been negotiated with the Wildlife Agencies and agreed upon by all parties:

1. Rancho Serena will designate 0.27 acres at the eastern end of the project parcel as permanent biological open space, and the because of its proximity to a significant regional wildlife corridor, the Wildlife Agencies will also allow mitigation credit for the 1.72 acre SDG&E utility easement on the project site. Both these areas (totaling 1.99 acres) will be managed in perpetuity (see below).

2. Rancho Serena will acquire 17.09 acres off-site mitigation credits [(6.36 x 3) -1.99]. The total purchase cost of the required mitigation credits is $598,150 ($35,000/acre x 17.09 acres) [Conservation credits were only used to determine a fair cost for management endowment] which will be placed with the San Diego Foundation, or similar entity, to be distributed solely for the purpose of management of the 1.99 acres on Rancho Serena and 26.65 acres of existing open space adjacent to Rancho Serena (Figure 7) donated by Martin Boone and SBF Financial LLC to Endangered Habitats Conservancy (EHC). This will expand and maintain a vital regional wildlife corridor and provide management in perpetuity for a total of 28.64 acres. It is anticipated that EHC will manage this acreage. The County and Wildlife Agencies (CDFW and USFWS) shall approve the land manager and any transfers of that responsibility in the future.

3. Impacts to 50 San Diego Goldenstar individuals will be mitigated by protecting a significant population (over 5,000 individuals) of the plants on the 303 acre Endangered Habitats Conservancy Crestlake property adjacent to Crestridge Ecological Reserve east of El Cajon. This preservation will exceed the 3:1 mitigation requirement for County List A species. The Rancho

Serena project will fund a five year effort to control and eradicate the South African long-flowered veldtgrass *Ehrharta longiflora*, a highly invasive non-native weed species that is threatening the goldenstar population on the property. The Endangered Habitats Conservancy will receive a flat one-time payment of $30,000 as a direct payment for this work.

4. Impacts to the one individual Nuttall's Scrub Oak on the project site will not have a significant impact on this species because the single individual will be translocated to the open space area. The transplantation will be supervised by a licensed Landscape Architect and the Project Biologist.

5. Limitations on grading or clearing activities during the bird nesting season (1 February through 31 August) are recommended to reduce impacts to nesting birds. If it is determined by a qualified biologist that no nesting is occurring within 300 feet (for passerine and other non-raptor bird species) or 500 feet (for raptors) of construction activity, such activities may proceed.

6. Due to the steep and isolated location of the proposed biological open space on the project site fencing should not be required. However, signage delineating the open space boundary should be placed along the eastern edge of the SDG&E easement (See Figure 4).

7. 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, MS, FN, FRGS, San Diego County Approved Biological Consultant

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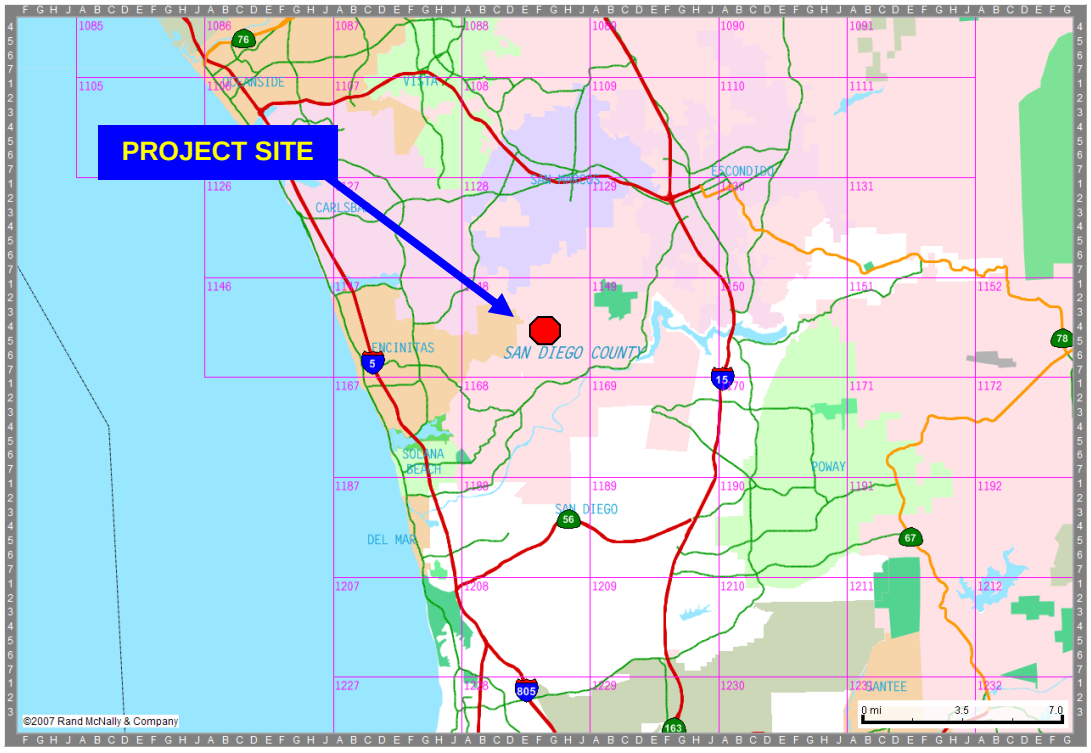


Figure 1. Location of project site in regional context. Thomas Bros. Map page #1148, G5.

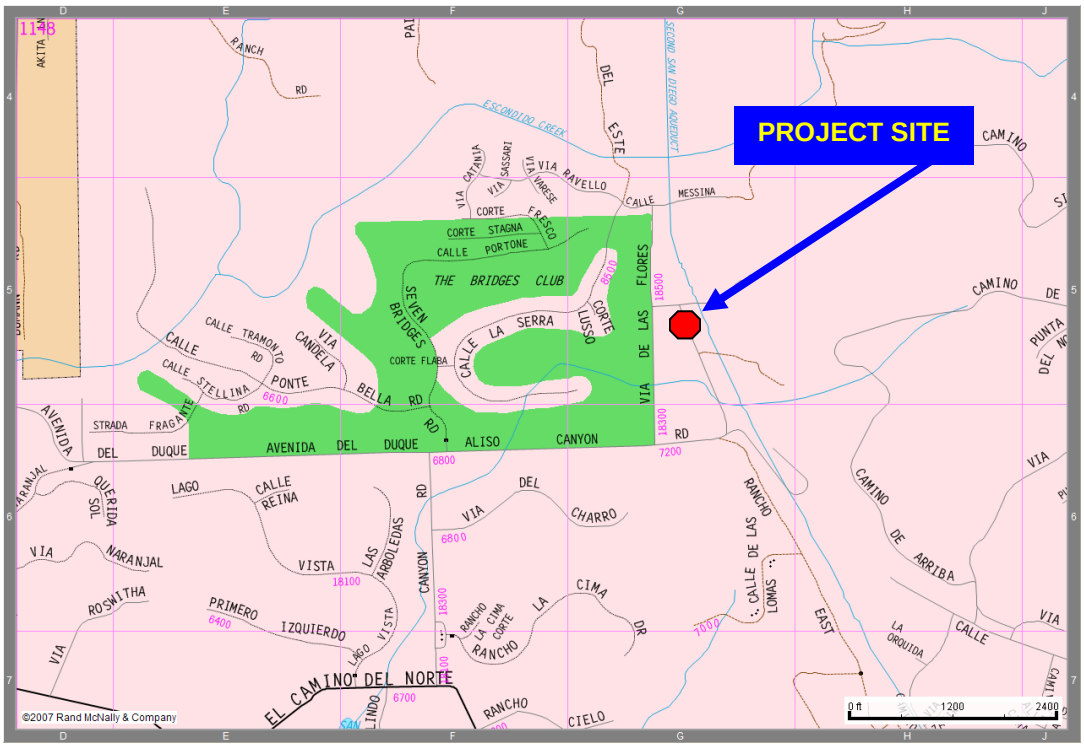


Figure 2. Detail location map of project site. Thomas Bros. Map page #1148, G5.

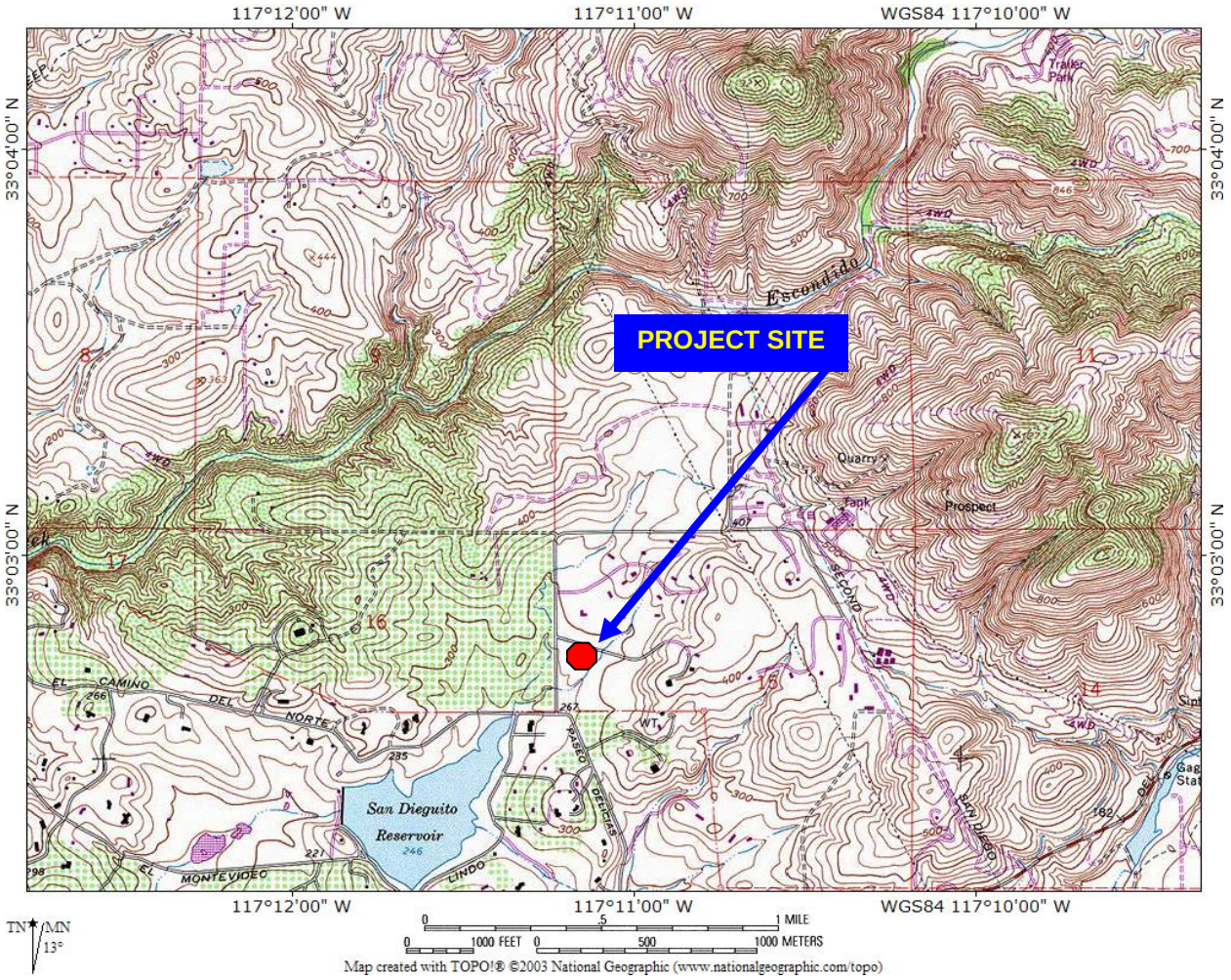


Figure 3. Topographical map showing project site. Taken from USGS Rancho Santa Fe 7.5 minute series quadrangle.

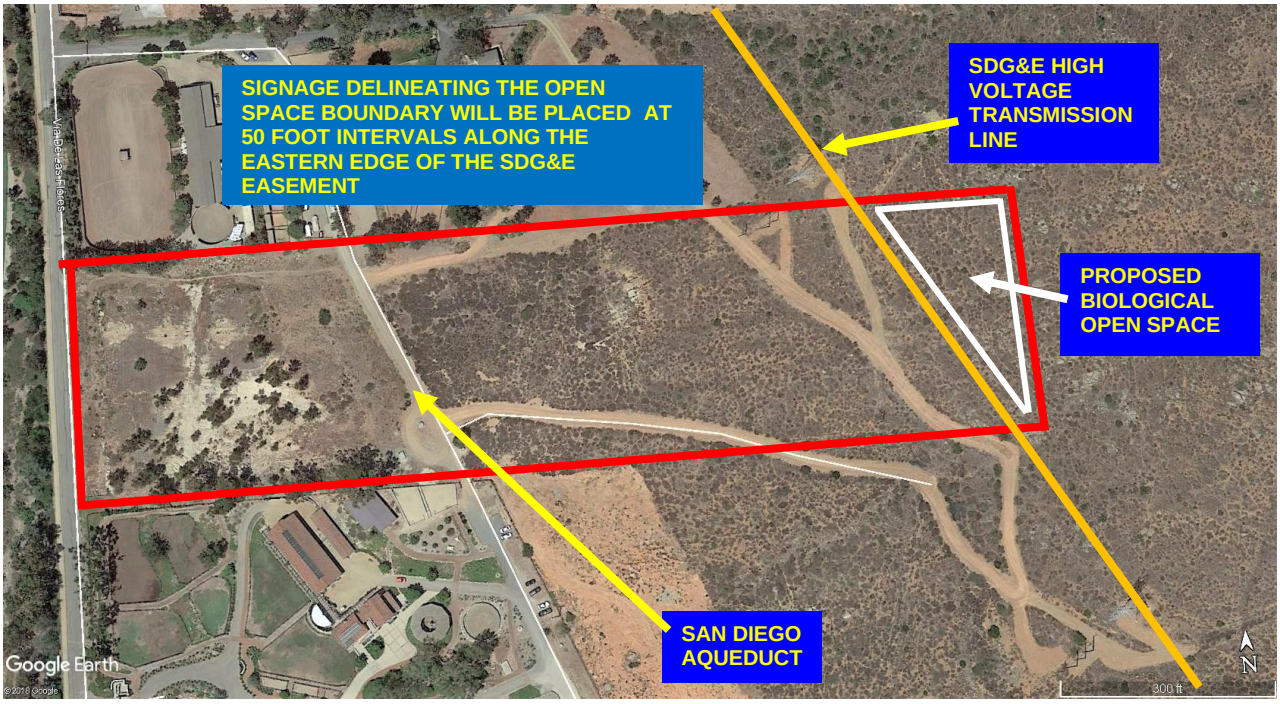


Figure 4. Satellite image (2018) showing project boundaries and proposed open space.

Figure 5. Location of project site in a local context.

Figure 6. Project site in 1994 showing disturbed areas west of the aqueduct.

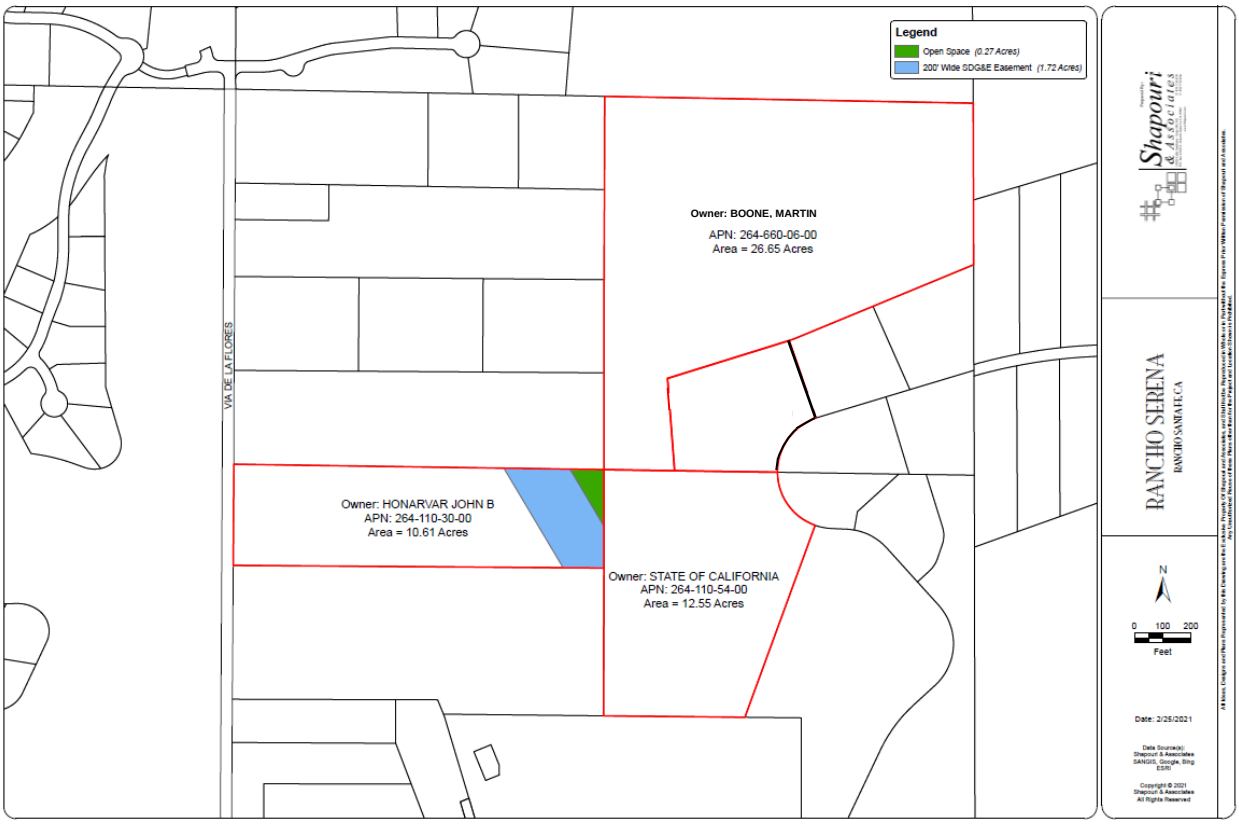


Figure 7. Rancho Serena project site with Boone property to be managed as conserved biological open space.

APPENDIX A

PLANT SPECIES OBSERVED ON THE PROJECT SITE

Note: This list contains plant species observed on the site and does not purport to be a complete list of species that occur on the site. Floral lists are compiled to assist in accurate plant community determination and as a byproduct of surveys for sensitive species.

Family	Scientific Name	Common Name
Agavaceae - Agave Family		
	Chlorogalum parviflorum	Soap Plant
Aizoaceae - Carpet-Weed Family		
	**Carpobrotus edulis*	Hottentot fig
Anacardiaceae - Sumac Family		
	Malosma laurina	Laurel Sumac
	Rhus ovata	Sugarbush
	**Schinus mole*	Peruvian Pepper Tree
Apiaceae (Umbelliferae) - Carrot Family		
	**Foeniculum vulgare*	Sweet Fennel
Asteraceae (Compositae) - Sunflower Family		
	Ambrosia psilostachya	Ragweed
	Artemisia californica	California Sagebrush
	Baccharis pilularis	Coyote Brush
	**Centaurea melitensis*	Tocalote
	**Cirsium* sp.	Thistle
	Deinandra fasciculata	Tarplant
	Encelia californica	Bush Sunflower
	Eriophyllum confertiflorum	Golden Yarrow
	**Glebionis coronaria*	Crown Daisy
	Pseudognaphalium californicum	California Everlasting
	**Taraxacum erythrospermum*	Common Dandilion

Brassicaceae (Cruciferae) - Mustard Family

**Hirschfeldia incana*	Short-Pod Mustard
**Raphanus sativus*	Wild Radish

Cactaceae - Cactus Family

**Opuntia ficus-indica*	Indian Fig

Chenopodiaceae - Goosefoot Family

**Salsola tragus*	Russian Thistle

Convolvulaceae - Morning Glory Family

Calystegia longipes	Morning-Glory

Cucurbitaceae - Gourd Family

Marah macrocarpus	Wild Cucumber

Euphorbiaceae - Spurge Family

**Ricinus communis*	Castor bean

Fabaceae - Pea Family

Acmispon glaber	Deerweed
**Vicia villosa*	Winter Vetch

Fagaceae - Oak Family

Quercus dumosa	**Nuttall's Scrub Oak**

Gentianaceae - Gentian Family

Zeltnera venusta	Conchalagua

Geraniaceae - Geranium Family

**Erodium* sp.	Filaree

Iridaceae - Iris Family

Nasella bellum	Blue-eyed Grass

Lamiaceae (Labiatae) - Mint Family

Salvia mellifera	Black Sage

Liliaceae - Lily Family

Calochortus splendens	Splendid Mariposa Lily

Malvaceae - Mallow Family

Malacothamnus fasciculatus	Coastal Bushmallow
**Malva parviflora*	Cheeseweed

Myrtaceae - Myrtle Family

*Eucalyptus sp.	Eucalyptus

Myrsinaceae - Myrsine Family

**Anagallis arvensis*	Scarlet Pimpernel

Plantaginaceae - Plantain Family

Antirrhinum nuttallianum ssp. nuttallianum	Nuttall's Snapdragon

Plumbaginaceae - Leadwort Family

**Limonium perezii*	Canary Island Sea-Lavender

Poaceae (Gramineae) - Grass Family

**Arundo donax*	Giant Reed
**Avena* sp.	Wild Oats
Bromus carinatus	California Brome
**Bromus diandrus*	Ripgut Grass
**Bromus hordeaceus*	Soft Chess
**Bromus madritensis* ssp. *madritensis*	Red Brome
**Bromus madritensis* ssp. *rubens*	Red Brome
**Vulpia myuros*	Rattail Fescue

Polygonaceae - Buckwheat Family

Eriogonum fasciculatum ssp. *fasciculatum*	California Buckwheat
**Rumex crispus*	Curley Dock

Scrophulariaceae - Figwort Family

Diplacus aurantiacus	Orange Bush Monkey-Flower

Themidaceae - Brodiaea Family

Bloomeria clevelandii	**San Diego Goldenstar**
Dichelostemma capitatum	Blue Dicks

* = Non-native species

APPENDIX B

WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

BIRDS

Anna's Hummingbird	*Calypte anna*
Red-tailed Hawk	*Buteo jamaicensis*
Turkey Vultures	***Cathartes aura***
Mourning Dove	*Zenaida macroura*
California Gnatcatcher	***Polioptila californica*** **(Observed twice in 2020)**
Western Kingbird	*Tyrannus verticalis*
Northern Mockingbird	*Mimus polyglottos*
House Finch	*Haemorhous mexicanus*
California Towhee	*Pipilo crissalis*

MAMMALS

Botta's Pocket Gopher *Thomomys bottae*	Burrows
Southern Mule Deer ***Odocoileus hemionus***	Shed antler

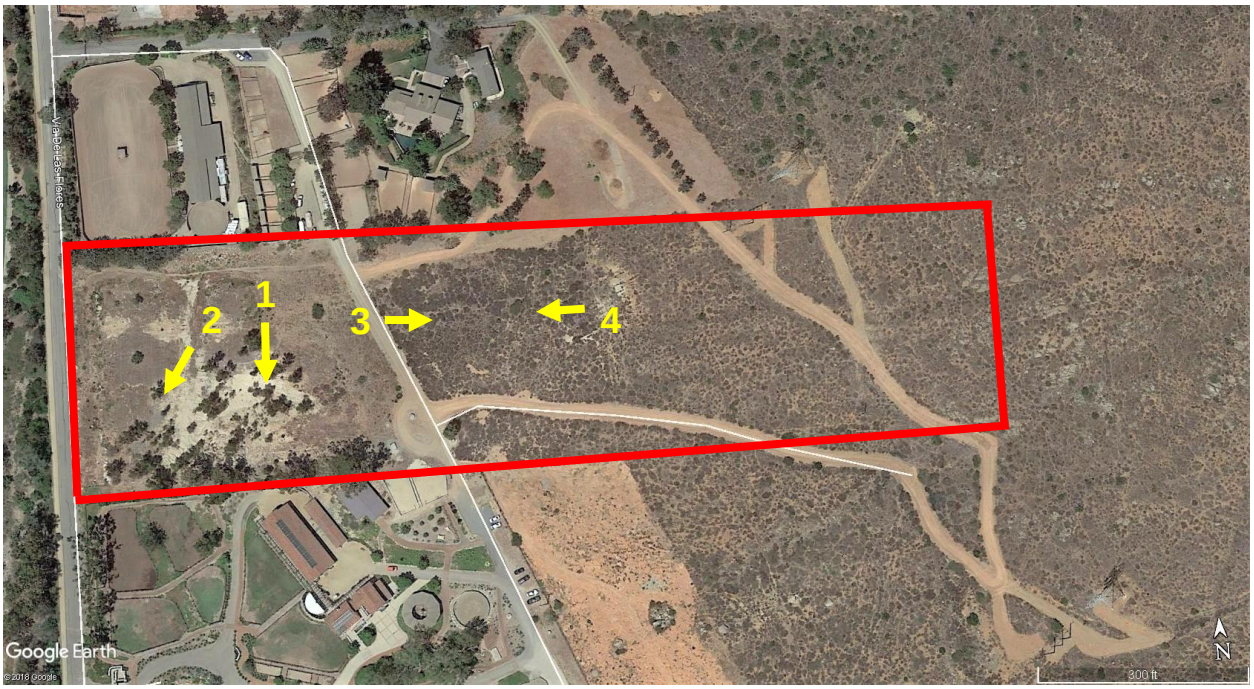
AMPHIBIANS AND REPTILES

Western Fence Lizard *Sceloporus occidentalis*	Observed

APPENDIX C

PHOTOGRAPHS OF THE PROJECT SITE

All photographs taken 2019 by W.T. Everett

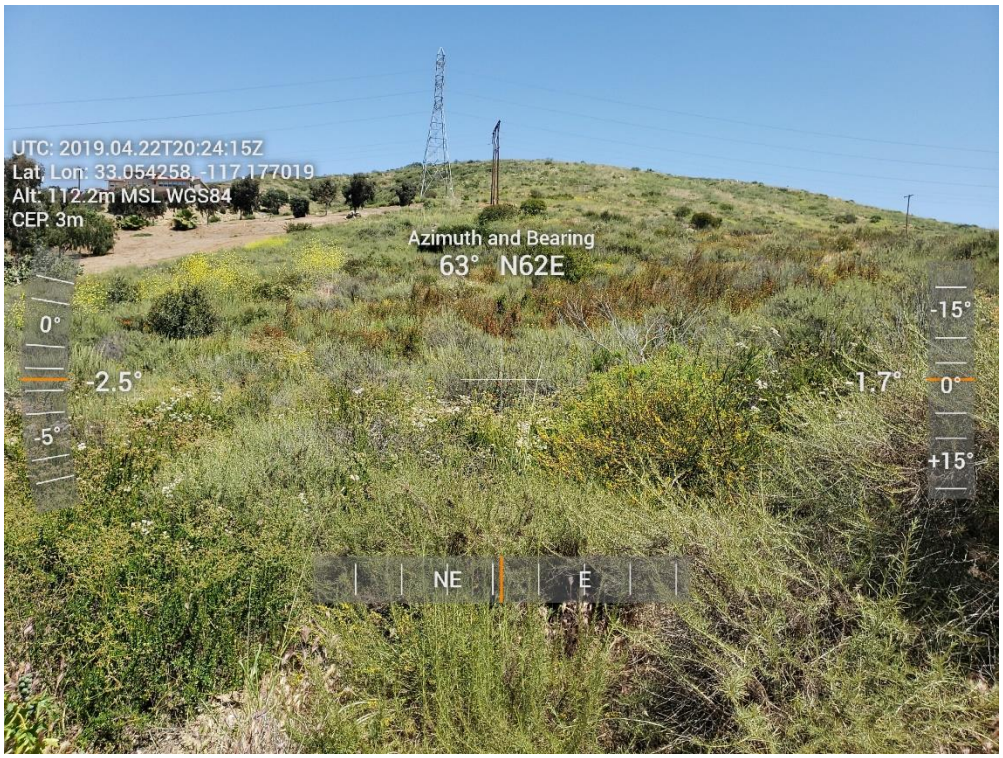


PHOTOGRAPH INDEX

Yellow arrows and numbers indicate the locations and directions from which the following photographs were taken:

Photograph 1. View from lower pad area looking south.

Photograph 2. View of lower pad area adjacent to Via De Las Flores.



Photograph 3. View from San Diego Aqueduct looking east.

Photograph 4. View looking west from the center of the site.

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. Habitat type may be present on-site, but is likely disturbed, fragmented, isolated, small in extent, dominated by edge effects, may not have appropriate soil type, micro habitat conditions, or is otherwise not suitable for use by the sensitive species.
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
San Diego thornmint	***Acanthomintha ilicifolia***	**2,3, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools**

San Diego needlegrass	*Achnaterum diegoense*	7, 8A	N	L - 1	Coastal Sage Scrub, Grassland, Salt or Alkali Marsh
San Diego adolphia	***Adolfia californica***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub, Grassland**
Shaw's agave	***Agave shawii***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub**
San Diego ambrosia	***Ambrosia pumila***	**1, 6, 8A**	**N**	**L - 1, 2**	**Riparian, Freshwater Marsh**
Aphanisma	***Aphanisma blitoides***	**7, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Coastal or Desert Dune**
Palmer's sage	*Artemesia palmeri*	7, 8B	N	L - 2	Coastal Sage Scrub, Riparian
South coast saltbush	***Atriplex pacifica***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Chamise Chaparral**
Golden snake cactus	***Bergerocactus emoryi***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub**
San Diego Goldenstar	***Bloomeria clevelandii***	**7,8A**	**Y**	**H**	**Coastal Sage Scrub, Grassland, Oak Woodland, Chamise Chaparral, Vernal Pools**
Lewis sun cup	*Camissonia lewsii*	7, 8C	N	L - 2	Coastal Sage Scrub, Grassland
Brewer's calandrinia	*Calandrinia breweri*	7, 8D	N	L - 2	Coastal Sage Scrub, Mixed Chaparral
Seaside calandrinia	*Calandrina maritima*	7, 8D	N	L - 2	Coastal Sage Scrub
Slender pod jewellflower	***Caulanthus stenocarpus***	**5, 8D**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Oak Woodland**
Orcutt's pincushin	***Chaenactis glabriuscula orcuttiana***	**7, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Prostrate spineflower	***Chorizanthe procumbens***	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Small-flowered morning glory	*Convolvulus simulans*	7, 8D	N	L - 2	Non-Native Grassland
Sea dahlia	***Coreopsis maritima***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub, Mixed Chaparral**
San Diego sand aster	***Corethrogyne filaginifolia incana***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Chamise Chaparral**

San Dieguito sand aster	***Corethrogyne filaginifolia linifolia***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Western dichondra	*Dichondria occidentalis*	7, 8D	N	L - 1	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Blochman's dudleya	***Dudlyea blochmaniae blochmaniae***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub**
Many stemmed dudleya	***Dudlyea multicaulis***	**7, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral**
Variegated dudleya	***Dudleya variegata***	**7, 6, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Vernal Pools**
Sticky dudleya	***Dudleya viscida***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Palmer's goldenbush	*Ericameria palmeri* ssp. *Palmeri*	7, 8B	N	L - 2	Coastal Sage Scrub, Mixed Chaparral
Large leaf fillary	***Erodium macrophyllum* var. *macrophyllum***	**7, 8B**	**N**	**L - 2**	**Coastal Sage Scrub, Native Grassland**
San Diego button celery	***Eryngium aristulatum parishii***	**2,3, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools**
Cliff spurge	***Euphorbia misera***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub**
Coast barrel cactus	***Ferocactus viridescens***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub**
Mission canyon blue cup	*Githopsis diffusa filicaulis*	7, 8C	N	L - 2	Coastal Sage Scrub, Mixed Chaparral
Orcutt's hazardia	***Hazardia orcuttii***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub**
Mesa horkelia	***Horkelia cuneata puberula***	**7, 8A**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Decumbent goldenbush	***Isocoma menziesii decumbens***	**7, 8A**	**N**	**L - 1**	**Coastal Sage Scrub, Chamise Chaparral, Vernal Pools**

San Diego marsh elder	***Iva hayesiana***	**7, 8B**	**N**	**L - 1**	**Coastal Sage Scrub, Grassland, Salt or Alkali Marsh**
California box-thorn	*Lycium californicum*	7, 8D	N	L – 2	Mixed Chaparral
Rush like bristle bush	*Machaeranthera juncea*	7, 8D	N	L – 2	**Coastal Sage Scrub, Chamise Chaparral**
Willowy monardella	***Monardella linoides viminea***	**1,3, 8A**	**N**	**L – 2**	**Coastal Sage Scrub, Riparian**
California spine flower	*Mucronea californica*	7, 8D	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Coastal or Desert Dune
Little mousetail	*Myosurus minimus apus*	7, 8C	N	L – 2	Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools
Spreading navarretia	***Navarretia fossalis***	**2, 8A**	**N**	**L – 2**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Vernal Pools**
Snake cholla	***Opuntia parryi serpentina (O. californica)***	**6, 7, 8A**	**N**	**L – 1**	**Coastal Sage Scrub**
Golden-rayed pentachaeta	*Pentachaeta aurea*	7, 8D	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
Brand's phacelia	***Phacelia stellaris***	**7, 8A**	**N**	**L – 2**	**Coastal Sage Scrub, Coastal or Desert Dune**
Cooper's rein orchid	*Piperia cooperi*	7, 8D	N	L – 2	Grassland, Chamise Chaparral
Nuttall's scrub oak	***Quercus dumosa***	**7, 8A**	**Y**	**H**	**Coastal Sage Scrub**
Mesa club moss	*Selaginella cinerascens*	7, 8D	N	L – 1	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral
San Diego sunflower	*Viguiera laciniata*	7, 8D	N	L – 1	Coastal Sage Scrub
La Purissima viguiera	***Viguiera purissinae***	**7, 8A**	**N**	**L – 1**	**Coastal Sage Scrub**
Robinson's beetle	*Phobetus robinsoni*	7	N	L – 2	Riparian, Desert Wash

Quino checkerspot butterfly	***Euphydryas editha quino***	**1**	**N**	**L – 2**	**Coastal Sage Scrub, Grassland, Chamise Chaparral, Desert Scrub, Vernal Pools**
Hermes copper	***Lycaena hermes***	**7**	**N**	**L – 2**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**
Giant coastal skipper	*Megathymus yuccae harbisoni*			L – 2	Coastal Sage Scrub, Mixed Chaparral
Western spadefoot toad	*Scaphiopus hammondii*	7	N	L – 1	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Freshwater Marsh, Vernal Pools
San Diego banded gecko	***Coleonyx variegates blainvillei***	**7**	**N**	**L – 2**	**Riparian, Freshwater Marsh, Montane Meadow, Lakes and Bays**
San Diego horned lizard	*Phrynosoma coronatum blainvillei*	7	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral, Mixed Conifer
Coronado skink	*Eumeces skiltonianius interparietalis*	7	N	L – 2	Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Freshwater Marsh
Orange-throated whiptail	***Cnemidophorus hyperythrus***	**7**	**N**	**L – 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Chamise Chaparral**
Silvery legless lizard	*Anniella pulchra pulchra*	7	N	L – 2	Coastal Sage Scrub, Grassland, Riparian, Coastal or Desert Dune

Coastal rosy boa	*Charina trivirgata roseoffusca*	7	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Oak Woodland, Chamise Chaparral
Northern red diamond rattlesnake	*Crotalus 32ubber ruber*	7	N	L – 2	Coastal Sage Scrub, Mixed Chaparral Chamise Chaparral, Pinon Juniper, Desert Scrub
San Diego ringneck snake	*Diadophis punctatus similis*	7	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	7	N	L – 2	Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral, Freshwater Marsh
Yuma myotis	*Myotis yumanensis*	7	N	U	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
Pallid bat	*Antrozous pallidus*	7	N	U	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Mexican long-tongued bat	*Choeronycteris mexicana*	7	N	L	Coastal Sage Scrub, Desert Scrub, Desert Wash

California leaf-nosed bat	*Macrotus californicus*	7	N	L	Coastal Sage Scrub, Mixed Chaparral, Riparian, Desert Scrub, Desert Wash
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	7	N	U	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
Big free-tailed bat	*Nyctinomops macrotis*	7	N	U	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
Greater western mastiff bat	*Eumops perotis californicus*	7	N	L - 2	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

Stephen's kangaroo rat	***Dipodomys stephensi***	1, 4	N	L - 2	Coastal Sage Scrub, Grassland
San Diego desert woodrat	*Neotoma lepida intermedia*	7	N	L - 1	Coastal Sage Scrub, Riparian, Oak Woodland, Chamise Chaparral
Pacific pocket mouse	***Perognathus longimembris***	**1**	**N**	**L - 3**	**Coastal Sage Scrub, Grassland, Coastal or Desert Dune**
Dulzura California pocket mouse	*Chaetodipus californicus femoralis*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral, Desert Scrub, Desert Wash
Mountain lion	*Felis concolor*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Southern mule deer	*Odocoileus hemionus*	7	Y	H	Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow

San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest
Southern grasshopper mouse	*Onychomys torridus Ramona*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Chamise Chaparral
American badger	*Taxidea taxus*	7	N	L - 2	Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Pinon-Juniper, Desert Scrub, Desert Wash, Montane Meadow
Golden eagle	***Aquila chrysaetos***	**6**	**N**	**L - 2**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest, Pinon-Juniper**
Northern Harrier	***Circus cyaneus hudsonius***	**7**	**N**	**L - 2**	**Grassland, Freshwater Marsh, Salt or Alkali Marsh**
Cooper's hawk	***Accipiter cooperi***	**7**	**N**	**L - 2**	**Grassland, Riparian, Oak Woodland**
Sharp-shinned hawk	***Accipter striatus***	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Oak Woodland, Mixed Conifer**
Turkey vulture	***Cathartes aura***	**7**	**Y**	**H**	**Coastal Sage Scrub, Mixed Chaparral, Grassland, Riparian, Oak Woodland, Chamise Chaparral, Mixed Conifer, Closed Cone Forest**

Burrowing Owl	***Athene cunicularia hypugea***	**7**	**N**	**L - 1**	**Coastal Sage Scrub, Grassland, Desert Wash, Coastal or Desert Dune**
Bank Swallow	***Riparia riparia***	**4**	**N**	**L - 2**	**Coastal Sage Scrub, Riparian, Freshwater Marsh**
California Gnatcatcher	***Polioptila californica california***	**2**	**Y**	**H**	**Coastal Sage Scrub**
San Diego cactus wren	***Campylorhynchus brunneicapillus cousi***	**7**	**N**	**L - 1**	**Coastal Sage Scrub**
Loggerhead shrike	***Lanius ludovicianus***	**7**	**N**	**L - 2**	**Coastal Sage Scrub, Grassland, Riparian, Oak Woodland, Desert Scrub, Desert Wash**
Rufous-crowned sparrow	***Aimophila ruficeps canescens***	**7**	**N**	**L - 1**	**Coastal Sage Scrub, Chamise Chaparral**
Bell's sage sparrow	***Amphispiza belli belli***	**7**	**N**	**L - 1**	**Coastal Sage Scrub, Mixed Chaparral, Chamise Chaparral**

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ESTABLISHED IN 1975

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APPENDIX E

17 June 2019

Note: California Gnatcatchers were subsequently observed on the site twice during 2020

Ali Shapouri, AICP CEP
Shapouri & Associates
10829 Calle Ambiente, Suite 501
Rancho Santa Fe, CA 92067

Re: RANCHO SERENA PROJECT SITE CALIFORNIA GNATCATCHER SURVEYS

Dear Mr. Shapouri,

This report presents the results of three focused presence/absence surveys that I recently conducted for the federally threatened Coastal California Gnatcatcher *Polioptila californica californica*. The surveys were conducted within the approximately 10 acre Rancho Serena project site on in the community of Rancho Santa Fe, San Diego County.

The California Gnatcatcher is a federal threatened species, a state species of concern, and is a "target species" of the NCCP process. This species is a non-migratory resident whose range covers the coastal plains and foothills of Southern California and northern Baja California. In San Diego County, it is widespread in coastal lowlands below about 2,000 feet elevation and typically occurs in or near Coastal Sage Scrub (CSS). The California Gnatcatcher population is seriously declining due to loss of habitat. Between 85% and 90% of this species' habitat has been lost to urban or agricultural development. It is almost extirpated from Ventura, San Bernadino, and Los Angeles counties. The U.S. population is estimated to be just under 5000 pairs. San Diego County appears to be the center of abundance within the United States for this species.

The survey site is located on the east side of Via De Las Flores across the street from The Bridges golf course (Figures 1 and 2). The approximate USGS coordinates of the site are 33°03'N, 117°11'W as determined on-site by Global Positioning System (GPS) receiver (Rancho Santa Fe 7.5 minute series quadrangle, see Figure 3). The elevation of the site ranges from 280 to 650 feet, with topography consisting of a gentle west-facing slope increasing in elevation to the east end of the site.

BIOLOGICAL SETTING

The site was burned in the 2007 Witch Fire, and is still undergoing the process of plant community succession towards recovery. The area to the east of the aqueduct easement contains sparse, typical CSS species, including California sagebrush *Artemesia californica,* California buckwheat *Eriogonum fasciculatum* ssp. *fasciculatum,* laurel sumac *Malosma laurina* and other common species. The remainder of the site contains Disturbed Habitat.

METHODS

I surveyed the site three times in conformance with current U.S. Fish and Wildlife Service (USFWS) protocol guidelines. The surveys were conducted under the authority granted to me by USFWS permit # TE-788036. The surveys were conducted by slowly walking routes within the survey site. After stopping, listening, and observing at intervals of approximately 30 meters, recorded Coastal California Gnatcatcher vocalizations were played for 30 seconds. After the vocalizations were played, an additional two minutes were spent observing and listening before moving to the next observation site. Weather conditions and time of day were appropriate for the detection of Coastal California Gnatcatchers (Table 1).

TABLE 1
SCHEDULE OF SURVEYS AND CONDITIONS

Date	Time (hours)	Temperature (˚F)	Wind Speed (mph)	Cloud Cover (%)
4/22/19	0810-1040	61 - 67	0	5
5/15/19	0930-1200	62 - 64	0	100
6/03/19	0845-1100	64 - 66	0	100

Results

No California Gnatcatchers were detected during the focused surveys. The CSS onsite appears suitable for occupation by California Gnatcatchers.

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

Sincerely,

William T. Everett
Certified Biological Consultant
U.S. Fish & Wildlife Service California Gnatcatcher
Survey Authorization Permit # TE-788036

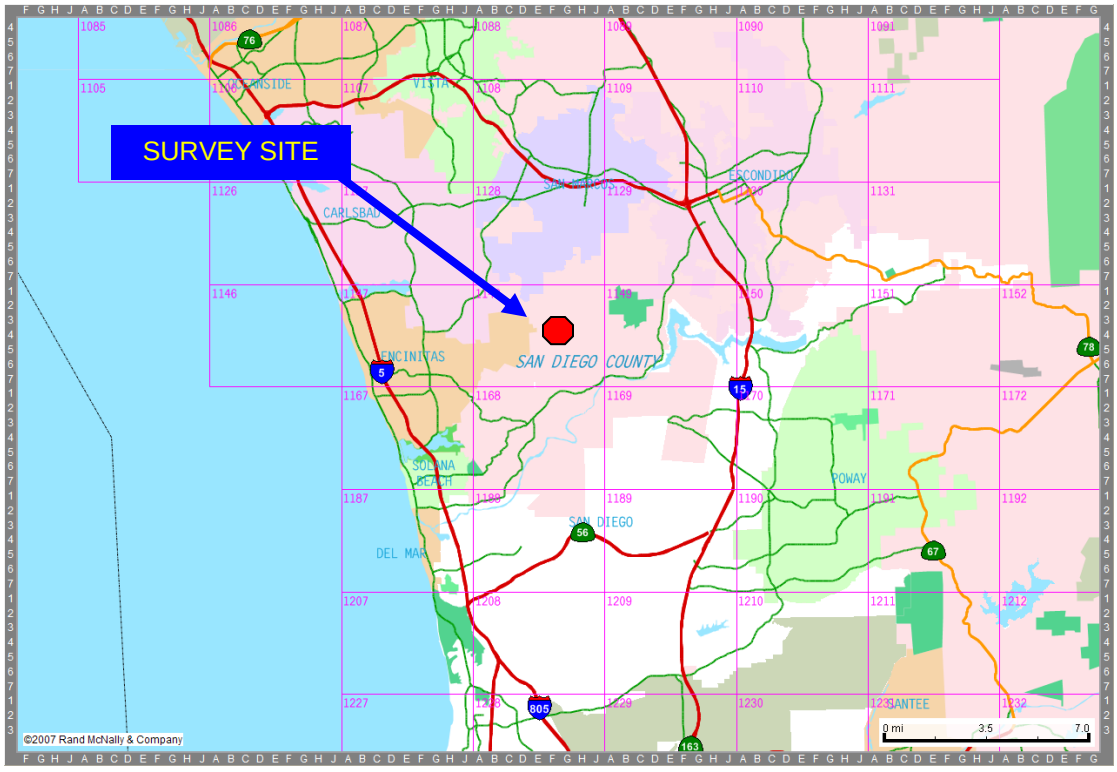


Figure 1. Location of survey site in regional context. Thomas Bros. Map page #1148, G5.

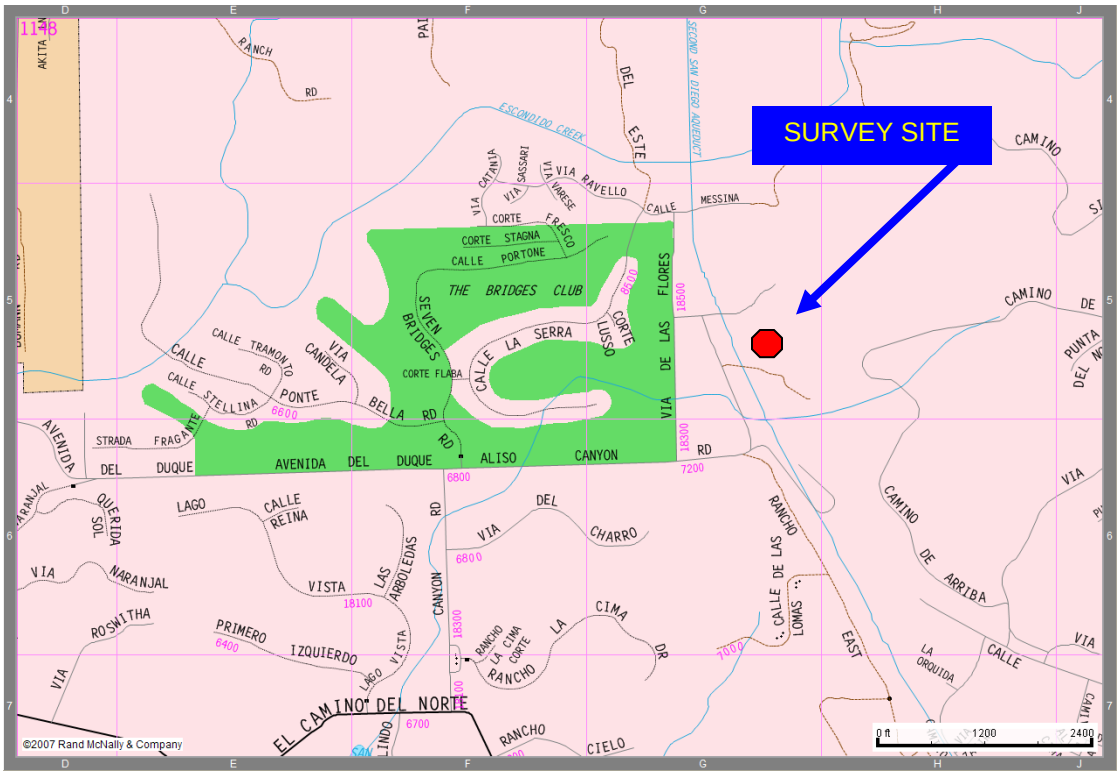


Figure 2. Detail location map of survey site. Thomas Bros. Map page #1148, G5.

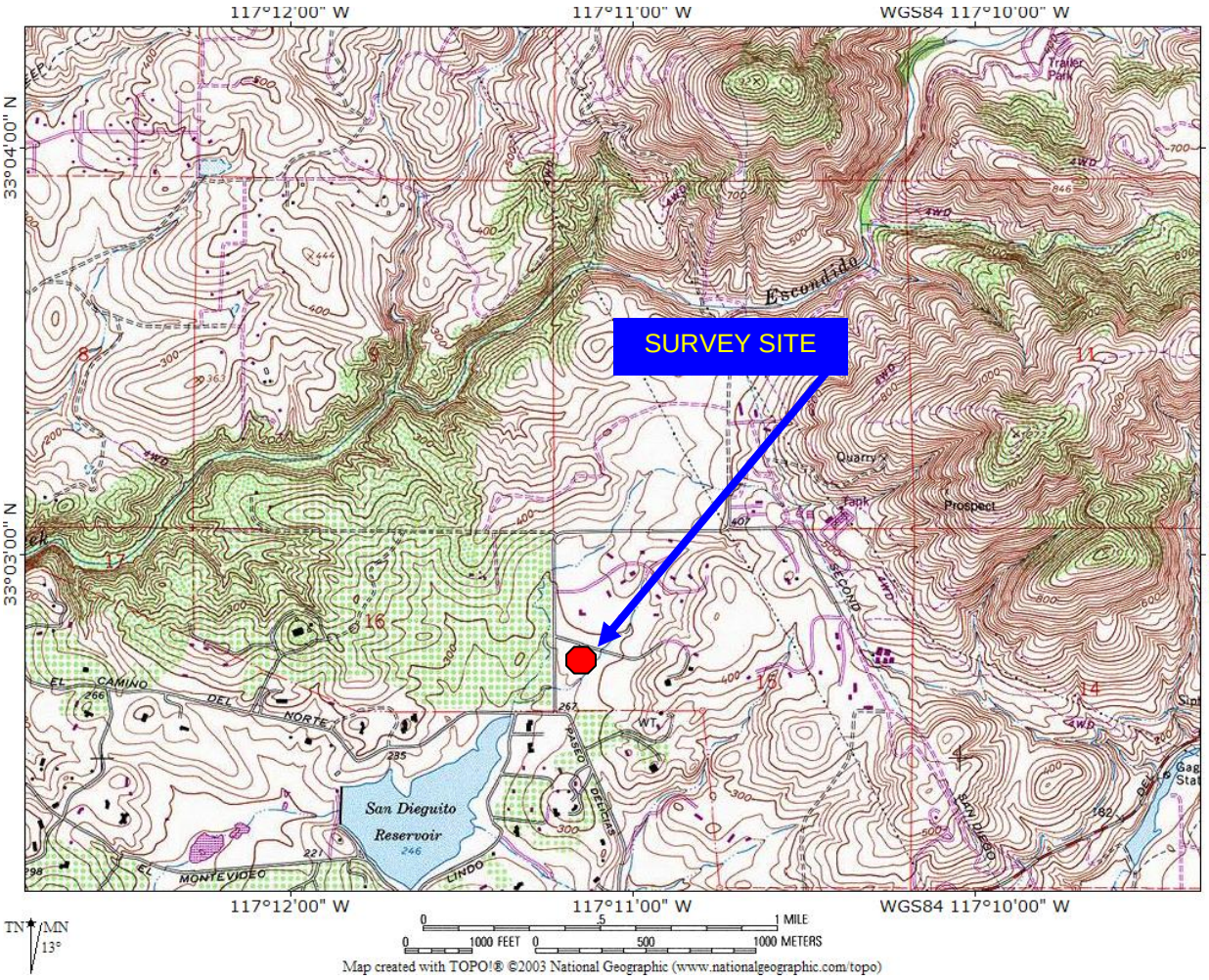


Figure 3. Topographical map showing survey site. Taken from USGS Rancho Santa Fe 7.5 minute series quadrangle.

APPENDIX F

LETTER FROM THE ENDANGERED HABITATS CONSERVANCY

REGARDING PROGRAM TO ERADICATE LONG-FLOWERED VELDTGRASS

ENDANGERED HABITATS CONSERVANCY
PRESERVING BIODIVERSITY THROUGH HABITAT ACQUISTION & STEWARDSHIP

October 10, 2021

To: Ali Shapouri
From: Michael Beck, Endangered Habitats Conservancy

Regarding: Potential mitigation for Rancho Serena development impacts to ~ 60 San Diego Goldenstar (*Bloomeria clevelandia).*

Dear Ali,

The Endangered Habitats Conservancy is under contract to complete the purchase the 303-acre Crestlake property adjacent to the Crestridge Ecological Reserve by end of year 2021. Property management will be integrated into EHC's larger complex of properties within the Greater Crestridge Ecological Reserve complex.

The Crestlake property includes a significant population of San Diego Goldenstar, numbering in the thousands of plants. This population has been monitored by the Conservation Biology Institute six times since 2014, and is stable with population numbers fluctuating according to rainfall. (The figures enclosed depict the extent of *Bloomeria clevelandii* in 2019 and 2021. In 2019 approximately 5,022 plants were mapped on 3.95 acres; in 2021 approximately 1,786 plants were mapped on 2.85 acres.)

The Crestlake *Bloomeria* population is threatened by the invasive non-native long-flowered veldtgrass, *Ehrharta longiflora**.

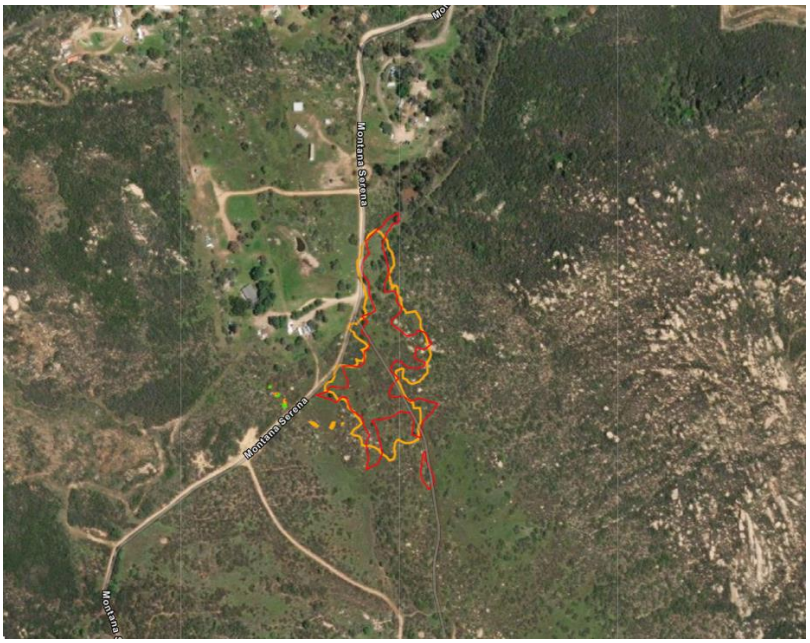
As a habitat management option for the Rancho Serena mitigation obligation, EHC proposes to control, with the goal of eradicating on site, the veldtgrass threatening the *Bloomeria* population at Crestlake. EHC staff are licensed for herbicide application. We will initiate a 5-year management plan and provide annual reports to the wildlife agencies and County of San Diego. One time cost is $30,000.

**** Cal-IPC:***
"Ehrharta longiflora (long-flowered veldtgrass) is an annual grass (family Poaceae) found on California's south coast, especially near San Diego. Long-flowered veldtgrass was recently introduced to California and is not currently widespread, but it has the potential to spread rapidly in coastal dune and scrub habitats. It may exclude native species in these habitats."

P.O. BOX 22438, SAN DIEGO, CA 92192-2438

Crestlake - *Bloomeria clevelandii* extent (Zoom out)
Red = 2021 extent
Orange = 2019 extent

Crestlake - *Bloomeria clevelandii* extent (Zoom in)
Red = 2021 extent
Orange = 2019 extent



Ehrharta longiflora at Crestlake (2021)

APPENDIX G

PREPARER QUALIFICATIONS

William T. Everett is a research, consulting, and conservation biologist with more than 44 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 conducted research in Southern California, Alaska, Antarctica, Baja California, South America, and throughout the tropical Pacific Ocean. His work has been published in the *Journal of Zoo and Wildlife Medicine*, the *Wildlife Society Bulletin*, the *Condor, Western Birds, Le Gerfaut* (Belgium), *Proceedings of the Western Foundation of Vertebrate Zoology, Marine Ornithology, Transactions of the San Diego Society of Natural History, Arctic, Birds of the World* (Cornell University), *Environment Southwest*, the *Proceedings of the California Academy of Science*, and various popular article outlets.

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). .

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 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, an international coalition 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.