

**Hallmark-Barham Specific Plan EIR**  
**Technical Appendices**

**Appendix E.3**  
**Special Status Plant Survey**



June 17, 2020

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**Subject: Special-Status Plant Survey Results for the Barham Drive Residential Project, San Marcos, California**

Ms. Hahl Mitchell:

This letter report provides the results of special-status plant surveys conducted by Rocks Biological Consulting (RBC) for the proposed Barham Drive Residential Project (project) on May 6 and 19, 2020.

## INTRODUCTION

The 10.56-acre project site is located in the City of San Marcos, within San Diego County, California (Figure 1). The project site is undeveloped but occurs within a relatively developed area, with residential development to the east and west of the site. The northern project boundary borders East Barham Drive, and the southern project boundary borders undeveloped lands that support Diegan coastal sage scrub and chaparral habitat.

The majority of the project site supports non-native grassland and disturbed vegetation, with smaller areas of native Diegan coastal sage scrub and chaparral habitat along the southern project boundary. Ornamental species are scattered throughout the project site (Figure 2).

Special-status plant species are those that are: 1) Listed by federal and/or state agencies, proposed for listing as threatened or endangered, or candidate species; 2) Considered rare by the California Native Plant Society (CNPS); and/or 3) Listed on the County of San Diego Sensitive Plant List (County 2006). Six special-status plant species have been reported within approximately three miles of the project site and were the focus of the on-site surveys (Figure 3):

- San Diego thornmint [*Acanthomintha ilicifolia*; California Rare Plant Rank (CRPR) 1B.1, Federally Threatened (FT), State Endangered (SE)]
- Thread-leaved brodiaea (*Brodiaea filifolia*; CRPR 1B.1, FT, SE).
- Spreading navarretia (*Navarretia fossalis*; CRPR 1B.1, FT)
- San Diego button-celery [*Eryngium aristulatum* var. *parishii*; CRPR 1B.1, Federally Endangered (FE), SE]
- Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*; CRPR 1B.1, FE)
- Wart-stemmed ceanothus (*Ceanothus verrucosus*; CRPR 2B.2)

## **METHODS**

Special-status plant surveys were conducted within the project site two times in spring 2020 to maximize detection of spring annual and bulb species, first on May 6, 2020 and then on May 20, 2020. Surveys were conducted in accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Plant Populations and Natural Communities* (California Department of Fish and Wildlife 2018). Biologists walked transects throughout the survey area and were prepared to map special-status plant occurrences using handheld ArcGIS Collector. During surveys all vascular plant species on the site were identified to species, subspecies, or varietal level (Appendix A). Reference populations were visited to determine flowering status and appropriate survey timing for the target special-status plant species with narrow windows of observation.

## **REFERENCE SITE VISITS**

Several reference sites were visited to ensure appropriate timing for on-site surveys of annual and short-lived bulb species. These included: 1) A San Diego thornmint population at Los Peñasquitos Preserve in Mira Mesa on May 19, 2020; 2) Two thread-leaved brodiaea populations, one at the Taylor Preserve in Vista on May 13, 2020, and one at the San Marcos Baldwin Preserve on May 13, 2020; and 3) Spreading navarretia and San Diego button celery populations at the Otay Lakes Preserve in Otay Ranch on May 14, 2020.

The Los Peñasquitos Preserve thornmint population, located approximately 20 miles south of the project site, was flowering during the visit (Appendix B). Given the confirmed presence, it is assumed that populations on the project site would have been observable during on-site surveys on May 6 or May 19, 2020.

The Taylor Preserve and Baldwin Preserve thread-leaved brodiaea populations, located approximately 11 miles northwest of the project site and four miles northwest of the site, respectively, were flowering during the May 13, 2020 visits (Appendix B). Given the confirmed presence, it is assumed that populations on the project site would have been observable during this confirmed flowering time.

The Otay Lakes Preserve spreading navarretia and San Diego button celery populations, located approximately 50 miles south of the project site, were identifiable during the visit (Appendix B). Given the confirmed presence, it is assumed that populations on the project site would have being observable during this time.

## **RESULTS**

Survey results for San Diego thornmint, thread-leaved brodiaea, spreading navarretia, San Diego button celery, Del Mar manzanita and wart-stemmed ceanothus were all negative on the project site. No incidental sightings of any other non-target special-status plant species were observed during surveys.

Please don't hesitate to contact me with any questions or concerns at [brenda@rocksbio.com](mailto:brenda@rocksbio.com) or (619) 701-6798.

Sincerely,

A handwritten signature in black ink that reads "Brenda M. Bennett". The signature is written in a cursive, flowing style.

Brenda Bennett  
Senior Biologist

**ENCLOSED**

Figure 1: Location

Figure 2: Biological Resources

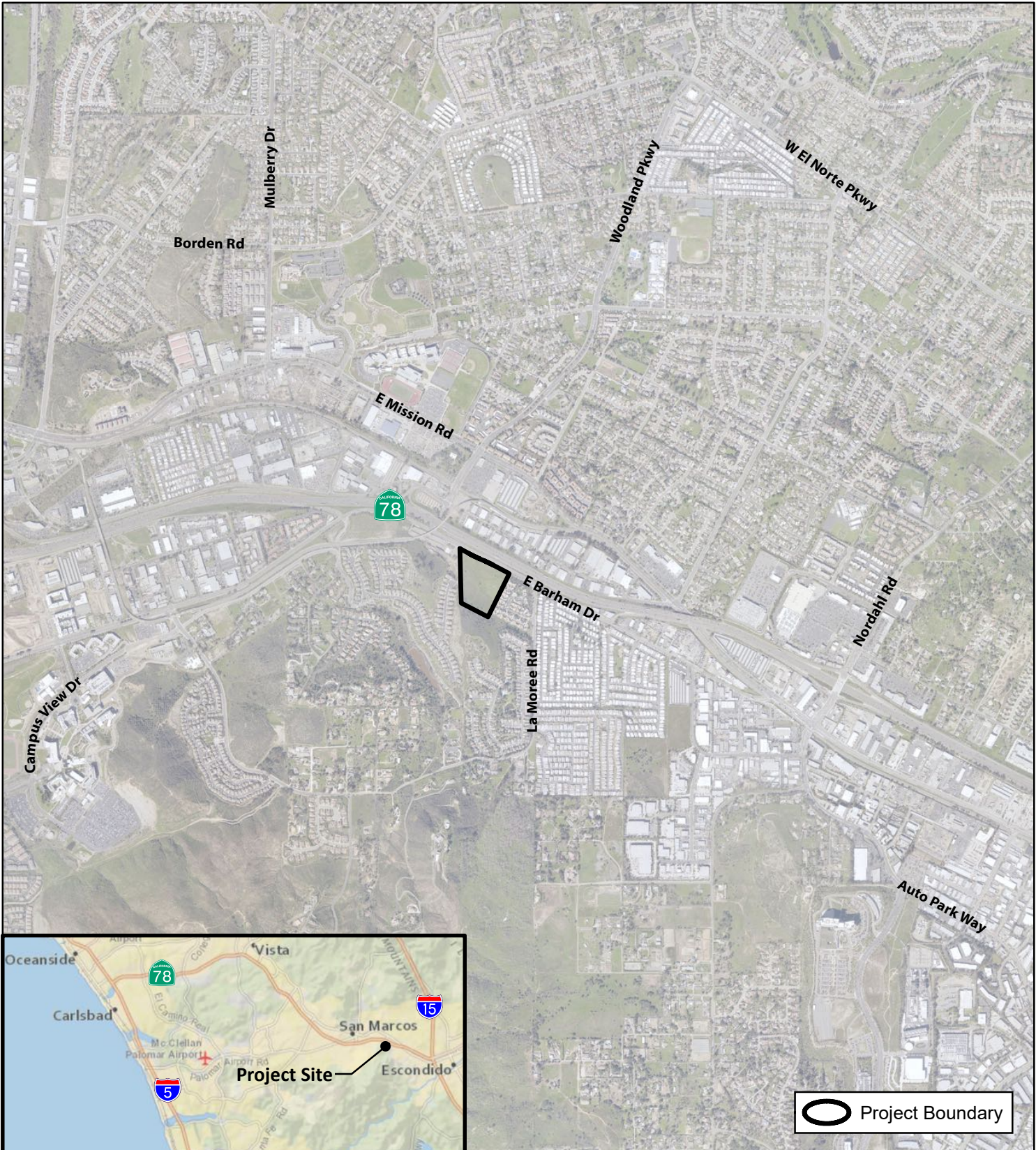
Figure 3: CNDDDB Plants (1 and 3 mile radius)


Attachment A: Plant Species Observed

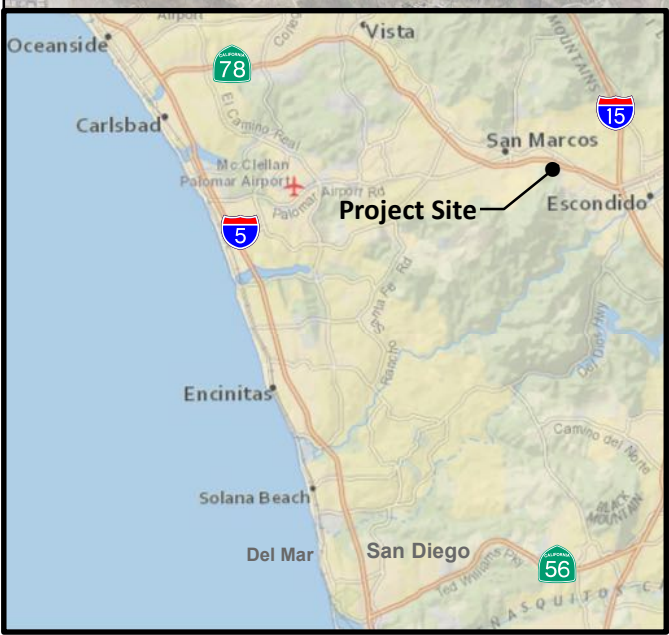
Attachment B: Photo Log



## REFERENCES

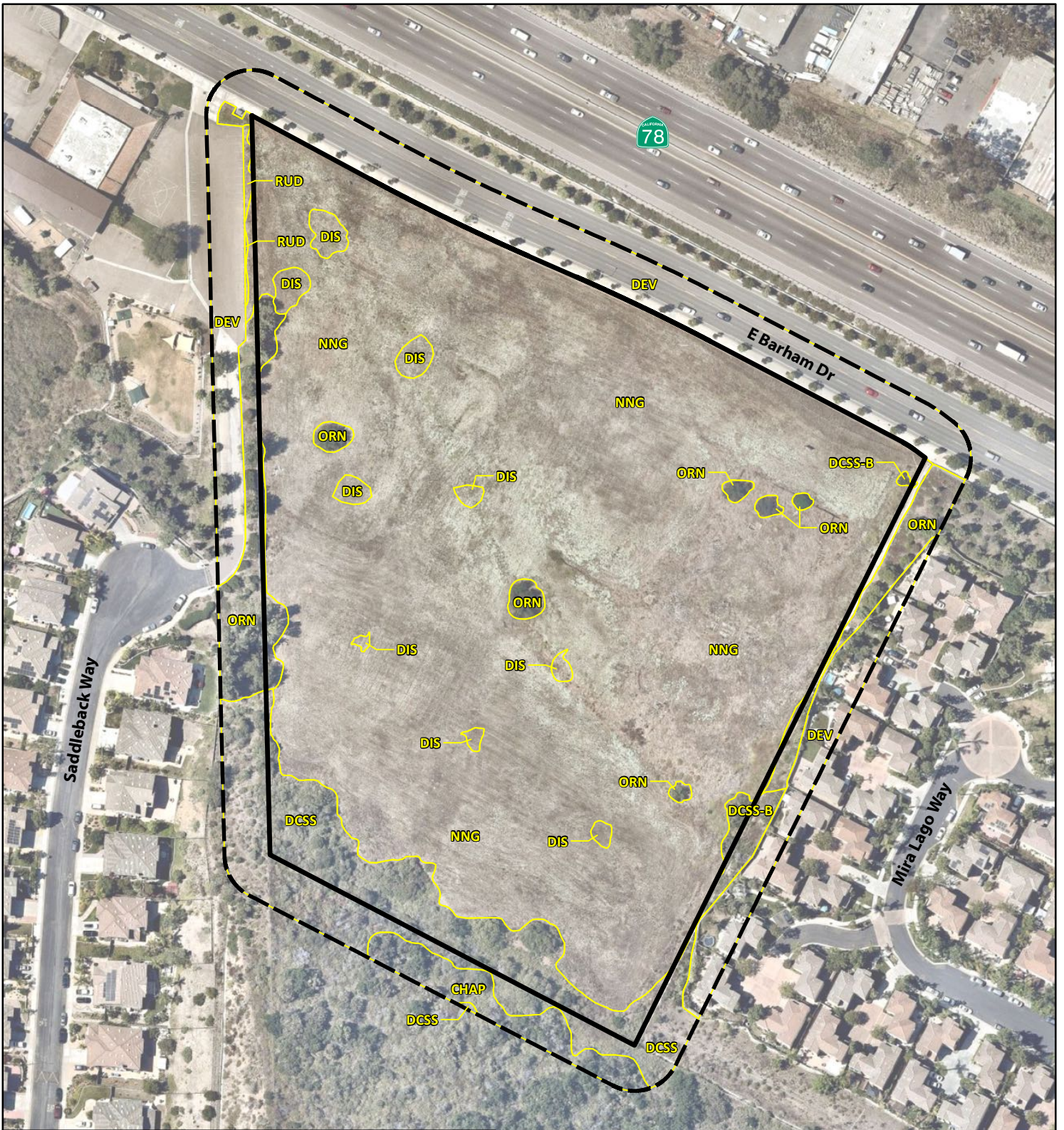
- California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. State of California, California Natural Resources Agency, Department of Fish and Wildlife. March 20.
- California Native Plant Society (CNPS), Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39).  
<http://www.rareplants.cnps.org>
- County of San Diego (County). 2006. County of San Diego Sensitive Plant. Updated September 2006.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Unpublished document, California Department of Fish and Game, Natural Heritage Division. Sacramento, CA.
- Jepson Flora Project (eds.) 2020. Jepson eFlora, <http://ucjeps.berkeley.edu/eflora/> (accessed May 20, 2020)
- Johnson, Leigh A. 2013. *Navarretia fossalis*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020.  
[http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=34450](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=34450)
- Miller, John M. 2012. *Acanthomintha ilicifolia*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020.  
[http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=11725](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=11725)
- Parker, V. 2012. *Arctostaphylos glandulosa* ssp. *crassifolia*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020.  
[http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=49169](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=49169)
- Pires, J. 2019. *Brodiaea filifolia*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020. [http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=16144](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=16144)
- Preston, Robert E. 2012. *Eryngium aristulatum* var. *parishii*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020.  
[http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=58847](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=58847)
- Wilken, Dieter H. 2016. *Ceanothus verrucosus*, in Jepson Flora Project (eds.) Jepson eFlora. Accessed on June 14, 2020.  
[http://ucjeps.berkeley.edu/eflora/eflora\\_display.php?tid=18506](http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=18506)






 Project Boundary



<p>FIGURE 1</p>	<p><b>Project Location</b></p> <p>BARHAM RESIDENTIAL</p>
	<p>0 1,000 2,000 FEET </p> <p>Aerial Photo: SANDAG &amp; SanGIS 2017 Regional Map: National Geographic, Esri</p>



-  Project Boundary
-  Survey Area
- Vegetation** 
- CHAP - Chaparral
- DCSS - Diegan Coastal Sage Scrub
- DCSS-B - Diegan Coastal Sage Scrub-Baccharis Dominated
- DEV - Developed
- DIS - Disturbed
- NNG - Non-Native Grassland
- ORN - Ornamental
- RUD - Ruderal

FIGURE 2	<b>Biological Resources</b> BARHAM RESIDENTIAL
 <b>ROCKS</b> BIOLOGICAL CONSULTING	  Aerial Photo: Nearmap 2019





Attachment A  
Plant Species Observed

Family	Common Name	Scientific Name
<b>Plants</b>		
Adoxaceae	Blue Elderberry	<i>Sambucus nigra</i> ssp. <i>caerulea</i>
Aizoaceae	Hottentot-Fig	<i>Carpobrotus edulis</i> *
Amaranthaceae	White Tumbleweed	<i>Amaranthus albus</i> *
Anacardiaceae	Laurel Sumac	<i>Malosma laurina</i>
Anacardiaceae	Peruvian Pepper Tree	<i>Schinus molle</i> *
Anacardiaceae	Brazilian Pepper Tree	<i>Schinus terebinthifolius</i> *
Anacardiaceae	Western Poison-Oak	<i>Toxicodendron diversilobum</i>
Apiaceae	American Bowlesia	<i>Bowlesia incana</i>
Apiaceae	Rattlesnake Weed	<i>Daucus pusillus</i>
Apiaceae	Sweet Fennel	<i>Foeniculum vulgare</i> *
Apiaceae	Pacific Sanicle	<i>Sanicula crassicaulis</i>
Apocynaceae	Narrow-Leaf Milkweed	<i>Asclepias fascicularis</i>
Arecaceae	Mexican Fan Palm	<i>Washingtonia robusta</i> *
Asparagaceae	Florist's-Smilax	<i>Asparagus asparagoides</i> *
Asteraceae	Western Ragweed	<i>Ambrosia psilostachya</i>
Asteraceae	Coastal Sagebrush	<i>Artemisia californica</i>
Asteraceae	Coyote Brush	<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>
Asteraceae	Italian Thistle	<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i> *
Asteraceae	Bachelor's Button	<i>Centaurea cyanus</i> *
Asteraceae	Tocalote	<i>Centaurea melitensis</i> *
Asteraceae	California Sand-Aster	<i>Corethrogyne filaginifolia</i> var. <i>filaginifolia</i>
Asteraceae	Australian Brass-Buttons	<i>Cotula australis</i> *
Asteraceae	Fascicled Tarweed	<i>Deinandra fasciculata</i>
Asteraceae	Stinkwort	<i>Dittrichia graveolens</i> *
Asteraceae	Flax-Leaf Fleabane	<i>Erigeron bonariensis</i> *
Asteraceae	Horseweed	<i>Erigeron canadensis</i>
Asteraceae	Asthmaweed	<i>Erigeron sumatrensis</i> *
Asteraceae	Long-Stem Golden-Yarrow	<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>
Asteraceae	Desert Cudweed	<i>Gamochaeta stagnalis</i> *
Asteraceae	Treasure Flower	<i>Gazania linearis</i> *
Asteraceae	Garland/Crown Daisy	<i>Glebionis coronaria</i> *
Asteraceae	Southern Sawtooth Goldenbush	<i>Hazardia squarrosa</i> var. <i>grindelioides</i>

Family	Common Name	Scientific Name
Asteraceae	Crete Hedynois	<i>Hedynois cretica</i> *
Asteraceae	Bristly Ox-Tongue	<i>Helminthotheca echioides</i> *
Asteraceae	Telegraph Weed	<i>Heterotheca grandiflora</i>
Asteraceae	Smooth Cat's Ear	<i>Hypochaeris glabra</i> *
Asteraceae	Spreading Goldenbush	<i>Isocoma menziesii</i> var. <i>menziesii</i>
Asteraceae	Prickly Lettuce	<i>Lactuca serriola</i> *
Asteraceae	Narrow-Leaf Cottonrose	<i>Logfia gallica</i> *
Asteraceae	Fragrant Everlasting	<i>Pseudognaphalium beneolens</i>
Asteraceae	California Everlasting	<i>Pseudognaphalium californicum</i>
Asteraceae	Fragrant Everlasting Cudweed	<i>Pseudognaphalium luteoalbum</i> *
Asteraceae	Cotton-Batting Plant	<i>Pseudognaphalium stramineum</i>
Asteraceae	Slender Woolly-Marbles	<i>Psilocarphus tenellus</i>
Asteraceae	California Chicory	<i>Rafinesquia californica</i>
Asteraceae	Common Groundsel	<i>Senecio vulgaris</i> *
Asteraceae	Milk Thistle	<i>Silybum marianum</i> *
Asteraceae	Prickly Sow-Thistle	<i>Sonchus asper</i> ssp. <i>asper</i> *
Asteraceae	Common Sow-Thistle	<i>Sonchus oleraceus</i> *
Asteraceae	Everlasting Nest-Straw	<i>Stylocline gnaphaloides</i>
Asteraceae	Common Dandelion	<i>Taraxacum officinale</i> *
Asteraceae	Greenthread	<i>Thelesperma</i> sp.*
Boraginaceae	Rigid Fiddleneck	<i>Amsinckia menziesii</i>
Boraginaceae	Minute-Flower Johnstonea	<i>Johnstonea micromeres</i>
Boraginaceae	Popcornflower	<i>Plagiobothrys collinus</i>
Brassicaceae	Turnip, Field Mustard	<i>Brassica rapa</i> *
Brassicaceae	Sahara Mustard	<i>Brassica tournefortii</i> *
Brassicaceae	Short-Pod Mustard	<i>Hirschfeldia incana</i> *
Brassicaceae	Lesser Wart-Cress	<i>Lepidium didymum</i> *
Brassicaceae	Wild Radish	<i>Raphanus sativus</i> *
Brassicaceae	Charlock	<i>Sinapis arvensis</i> *
Brassicaceae	London Rocket	<i>Sisymbrium irio</i> *
Brassicaceae	Hare's-Ear Cabbage	<i>Sisymbrium orientale</i> *
Campanulaceae	Small Venus Looking-Glass	<i>Triodanis biflora</i>
Caryophyllaceae	Mouse-Ear Chickweed	<i>Cerastium glomeratum</i> *
Caryophyllaceae	Four-Leaf Allseed	<i>Polycarpon tetraphyllum</i> ssp. <i>tetraphyllum</i> *

Family	Common Name	Scientific Name
Caryophyllaceae	Dwarf/Sticky Pearlwort	<i>Sagina apetala</i>
Caryophyllaceae	Western Pearlwort	<i>Sagina decumbens</i> ssp. <i>occidentalis</i>
Caryophyllaceae	Common Catchfly	<i>Silene gallica</i> *
Caryophyllaceae	Stickwort, Starwort	<i>Spergula arvensis</i> *
Caryophyllaceae	Common Chickweed	<i>Stellaria media</i> *
Chenopodiaceae	Lamb's Quarters	<i>Chenopodium album</i> *
Chenopodiaceae	Nettle-Leaf Goosefoot	<i>Chenopodium murale</i> *
Convolvulaceae	South Coast Morning-Glory	<i>Calystegia macrostegia</i> ssp. <i>intermedia</i>
Convolvulaceae	Field Bindweed	<i>Convolvulus arvensis</i> *
Crassulaceae	Pygmyweed	<i>Crassula connata</i>
Crassulaceae	Mossy Stonecrop	<i>Crassula tillaea</i> *
Cucurbitaceae	Wild-Cucumber	<i>Marah macrocarpa</i>
Cyperaceae	Cyperus	<i>Cyperus</i> sp.
Euphorbiaceae	Doveweed	<i>Croton setiger</i>
Euphorbiaceae	Spotted Spurge	<i>Euphorbia maculata</i> *
Euphorbiaceae	Petty Spurge	<i>Euphorbia peplus</i> *
Fabaceae	Spanish-Clover	<i>Acmispon americanus</i> var. <i>americanus</i>
Fabaceae	Deerweed	<i>Acmispon glaber</i>
Fabaceae	Grab Lotus	<i>Acmispon micranthus</i>
Fabaceae	Birdfoot Trefoil	<i>Lotus corniculatus</i> *
Fabaceae	Miniature Lupine	<i>Lupinus bicolor</i>
Fabaceae	Red-Flower Lupine	<i>Lupinus microcarpus</i> var. <i>microcarpus</i>
Fabaceae	Yellow Trefoil	<i>Medicago lupulina</i> *
Fabaceae	California Burclover	<i>Medicago polymorpha</i> *
Fabaceae	Indian Sweetclover	<i>Melilotus indicus</i> *
Fabaceae	Rose Clover	<i>Trifolium hirtum</i> *
Fabaceae	Crimson Clover	<i>Trifolium incarnatum</i> *
Fabaceae	Maiden Clover	<i>Trifolium microcephalum</i>
Fabaceae	Common Vetch	<i>Vicia sativa</i> ssp. <i>nigra</i> *
Gentianaceae	Canchalagua	<i>Zeltnera venusta</i>
Geraniaceae	Long-Beak Filaree/Storksbill	<i>Erodium botrys</i> *
Geraniaceae	Red-Stem Filaree/Storksbill	<i>Erodium cicutarium</i> *
Geraniaceae	White-Stem Filaree/Storksbill	<i>Erodium moschatum</i> *
Geraniaceae	Cut-Leaf Geranium	<i>Geranium dissectum</i> *

Family	Common Name	Scientific Name
Hydrophyllaceae	Common Eucrypta	<i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i>
Iridaceae	Blue-Eyed-Grass	<i>Sisyrinchium bellum</i>
Juncaceae	Toad Rush	<i>Juncus bufonius</i> var. <i>bufonius</i>
Lamiaceae	Henbit	<i>Lamium amplexicaule</i> *
Lamiaceae	Horehound	<i>Marrubium vulgare</i> *
Lamiaceae	Black Sage	<i>Salvia mellifera</i>
Lythraceae	Grass Poly	<i>Lythrum hyssopifolia</i> *
Malvaceae	Cheeseweed	<i>Malva parviflora</i> *
Meliaceae	China Berry	<i>Melia azedarach</i> *
Montiaceae	Red Maids	<i>Calandrinia menziesii</i>
Montiaceae	Narrow-Leaf Miner's-Lettuce	<i>Claytonia parviflora</i> ssp. <i>parviflora</i>
Montiaceae	Miner's lettuce	<i>Claytonia perfoliata</i>
Myrsinaceae	Scarlet Pimpernel	<i>Anagallis arvensis</i> *
Onagraceae	Summer Cotton Weed	<i>Epilobium brachycarpum</i>
Onagraceae	Willow Herb	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>
Onagraceae	Beautiful Evening-Primrose	<i>Oenothera speciosa</i> *
Oxalidaceae	Creeping Wood-Sorrel	<i>Oxalis corniculata</i> *
Oxalidaceae	Bermuda-Buttercup	<i>Oxalis pes-caprae</i> *
Papaveraceae	California Poppy	<i>Eschscholzia californica</i>
Phrymaceae	Coast Monkey Flower	<i>Diplacus puniceus</i>
Plantaginaceae	Large Blue Toadflax	<i>Nuttallanthus texanus</i>
Plantaginaceae	Prairie Plantain	<i>Plantago elongata</i>
Plantaginaceae	Corn Speedwell	<i>Veronica arvensis</i> *
Platanaceae	Western Sycamore	<i>Platanus racemosa</i>
Poaceae	Giant Reed	<i>Arundo donax</i> *
Poaceae	Slender Wild Oat	<i>Avena barbata</i> *
Poaceae	Wild Oat	<i>Avena fatua</i> *
Poaceae	Purple False Brome	<i>Brachypodium distachyon</i> *
Poaceae	Quaking Grass	<i>Briza minor</i> *
Poaceae	Rescue Grass	<i>Bromus catharticus</i> var. <i>catharticus</i> *
Poaceae	Ripgut Grass	<i>Bromus diandrus</i> *
Poaceae	Soft Chess	<i>Bromus hordeaceus</i> *
Poaceae	Red Brome	<i>Bromus rubens</i> *
Poaceae	African Fountain Grass	<i>Cenchrus setaceus</i> *

Family	Common Name	Scientific Name
Poaceae	Selloa Pampas Grass	<i>Cortaderia selloana</i> *
Poaceae	Bermuda Grass	<i>Cynodon dactylon</i> *
Poaceae	Salt Grass	<i>Distichlis spicata</i>
Poaceae	Panic Veldt Grass	<i>Ehrharta erecta</i> *
Poaceae	Gray's Fescue	<i>Festuca microstachys</i>
Poaceae	Rat-Tail Fescue	<i>Festuca myuros</i> *
Poaceae	Perennial Rye Grass	<i>Festuca perennis</i> *
Poaceae	Nit Grass	<i>Gastridium phleoides</i> *
Poaceae	Mediterranean Barley	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i> *
Poaceae	Glaucous Barley	<i>Hordeum murinum</i> ssp. <i>glaucum</i> *
Poaceae	Little-Seed Canary Grass	<i>Phalaris minor</i> *
Poaceae	Annual Blue Grass	<i>Poa annua</i> *
Poaceae	Annual Beard Grass	<i>Polypogon monspeliensis</i> *
Poaceae	Purple Needle Grass	<i>Stipa pulchra</i>
Polygonaceae	Knotweed	<i>Polygonum aviculare</i> *
Polygonaceae	Curly Dock	<i>Rumex crispus</i> *
Portulacaceae	Common Purslane	<i>Portulaca oleracea</i> *
Rhamnaceae	Spiny Redberry	<i>Rhamnus crocea</i>
Rosaceae	Western Lady's Mantle	<i>Aphanes occidentalis</i>
Rubiaceae	Common Bedstraw	<i>Galium aparine</i>
Salicaceae	Arroyo Willow	<i>Salix lasiolepis</i>
Scrophulariaceae	Slender Myoporum	<i>Myoporum parvifolium</i> *
Solanaceae	Tree Tobacco	<i>Nicotiana glauca</i> *
Solanaceae	Parish's Nightshade	<i>Solanum parishii</i>
Tamaricaceae	Athel	<i>Tamarix aphylla</i> *
Urticaceae	Dwarf Nettle	<i>Urtica urens</i> *
Zygophyllaceae	Puncture Vine	<i>Tribulus terrestris</i> *
*non-native species		

Attachment B

Photograph Log



Photo 1: *Acanthomintha ilicifolia* in bloom at Los Peñasquitos Preserve, May 19, 2020.



Photo 2: *Acanthomintha ilicifolia* in bloom at Los Peñasquitos Preserve, May 19, 2020.



Photo 3: *Brodiaea filifolia* in bloom at Taylor Preserve, May 13, 2020.



Photo 4: *Brodiaea filifolia* in bloom at Taylor Preserve, May 13, 2020.



Photo 5: *Navarretia fossalis* at Otay Lakes Preserve, May 14, 2020.



Photo 6: *Eryngium aristulatum* var. *parishii* at Otay Lakes Preserve, May 14, 2020.