

June 1, 2021

13346

Attn: Saba Family Trust  
41309 Avenida Biona  
Temecula, California 92591

**Subject:** *Focused Rare Plant Survey Report for Parcel ID 2191153300, City of San Marcos, San Diego County, California*

Dear Saba Family Trust:

Dudek conducted a focused survey for plants that are considered rare, listed, or special status (rare plant survey) on a commercial lot for the Saba Family Trust, Parcel ID 2191153300 (Project). Dudek Botanist, Erin Bergman conducted surveys for the Project on May 21, 2021 with a special emphasis on cluster lilies (*Brodiaea* species). The Project area is a 2.539 acre parcel (Figure 1, Project Location) within the City of San Marcos, the municipality of Oceanside-Escondido, San Diego County, California (the City). This letter report provides the methods and results of the rare plant survey.

## 1 Introduction

### 1.1 Project Location

The Project site consists of one parcel within the City, encompassed by development. The Project site is surrounded by commercial lots, paved roads, residential lots, and transportation corridors. The Project site is accessible from Capalina Road or West Mission Road in the City. Central coordinates for the Project parcel are 33.1516 North and 117.1952 West. The Project site has relatively flat topography. The Project site is at an elevation of approximately 595 feet above mean sea level.

## 2 Rare Plants

### 2.1 Reference Population Checks

Plant species bloom at slightly different times each year depending on temperature, rainfall patterns, elevation, and other environmental factors. Reference population checks involve locating populations of target species during a timeframe when they are known to be blooming or exhibiting other phenological characteristics that allow for species identification. Observations of reference populations during peak phenology provide assurance that these species would be identifiable if they were present in a Project area.

### 2.2 Spring Rare Plants

Two rare *Brodiaea* have high potential to occur in the vicinity of the Project site during the spring season. Orcutt's brodiaea (*Brodiaea orcuttii*) and threadleaf brodiaea (*Brodiaea filifolia*) have been documented as occurring

throughout the City of San Marcos. These species are members of the Brodiaea (Themidaceae) family. Threadleaf brodiaea and Orcutt's brodiaea bloom from March through July in grasslands, freshwater wetlands, wetland/riparian, vernal pools, foothill woodland, and coastal scrub habitats. Orcutt's brodiaea and threadleaf brodiaea are perennial herbs (bulbs). Threadleaf brodiaea occur at elevations between 25 feet and 860 feet above mean sea level. Orcutt's brodiaea occur at elevations between 25 feet and 5,249 feet above mean sea level. Both species have been recorded near the Project site (CNPS 2021; Reiser 2001). The Jepson bioregional range for threadleaf brodiaea is based on the elevation range restrictions (Jepson 2021), which shows its potential range throughout north coastal San Diego County, western Riverside County, southern Orange County, southeast Los Angeles County, and southwestern San Bernardino County. The Jepson bioregional range for Orcutt's brodiaea shows possibility for occurrence throughout most of San Diego County (excluding the very eastern portion), southwestern Riverside County, Orange County, and the southwestern section of San Bernardino County.

San Diego button celery (*Eryngium aristulatum* var. *parishii*) has high potential to occur within the vicinity of the Project site, and is most easily identified during the spring survey season. San Diego button celery is a member of the celery (Apiaceae) family. San Diego button celery blooms from April through July in grasslands with vernal pools, freshwater wetlands, wetland riparian habitat, and coastal sage scrub with vernal pools or vernal wetlands. San Diego button celery is an annual herb and occurs at elevations up to 2,460 feet above mean sea level. San Diego button celery has been recorded near the Project site within San Marcos (CNPS 2021). The Jepson bioregional range for San Diego button celery is based on the elevation range restrictions (Jepson 2021), which shows its potential for occurrence throughout western San Diego County and into parts of central San Diego County, western Riverside County, and throughout north-central Orange County.

## 3 Methods

### 3.1 Reference Check Methods

Dudek botanist Erin Bergman conducted a reference check for threadleaf brodiaea, Orcutt's brodiaea, and San Diego button celery on the morning of May 21, 2021, before conducting rare plant surveys. This reference check was based on collections documented within the Calflora database. The Calflora database offers GPS point locations for plant species across California (Calflora 2021). Ms. Bergman collected coordinates from the database as close to the site as possible to ensure phenology would be similar. Ms. Bergman targeted two locations for Brodiaea within a 2 to 5-mile radius of the Project site and one location for San Diego button celery within 5 miles of the Project site. Ms. Bergman observed all species in full bloom (in high densities) before going to the site to perform the field surveys (Attachment A, Reference Site Photos). On May 21, 2021, temperatures for the reference check were between 69°F and 77°F, winds were 0 to 4 miles per hour, and skies were clear. Observe live footage of reference check on May 21, 2021, for Orcutt's brodiaea here: <https://www.youtube.com/watch?v=ZF1OzxrWjFk> and live footage of reference check on May 21, 2021, for threadleaf brodiaea here: <https://www.youtube.com/watch?v=u1-kSCXOG-w>

### 3.2 Focused Special-Status Plant Survey

Ms. Bergman conducted a focused special-status rare plant survey within the Project site on May 21, 2021. Conditions for the survey were the same as those for the reference check—temperatures were between 69°F and

77°F, winds were 0 to 4 miles per hour, and skies were clear. Surveys for special-status species were conducted within the Project site by walking transects. Ms. Bergman used both the Collector mobile application and Dudek forms mobile application to record data and map any rare plant species. Transects were included in the Collector mobile application as guidance. These transects were spread at a distance of 10 feet to cover every section of the Project site, including areas with high-density vegetation. Ms. Bergman followed these 10-foot transect lines across the Project site. Focused special-status plant surveys conformed to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFG 2009), and U.S. Fish and Wildlife Services General Rare Plant Survey Guidelines (Cypher 2002).

All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Moreover, all plant species encountered in the field were recorded. Latin and common names for plant species with a California Rare Plant Rank follow the California Native Plant Society's Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2021). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson 2021) and common names follow the California Natural Community list (CDFW 2021) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2021).

### 3.3 Survey Limitations

There were no factors that limited the results of the focused rare plant survey. The focused rare plant survey was conducted on May 21, 2021, the same day that rare plant surveys on the Project site were performed, which is considered reasonable timing for spring blooming rare plant species.

Rainfall was enough that threadleaf brodiaea, Orcutt's brodiaea, and San Diego button celery were observed less than two miles from the Project site in very high densities. Therefore, these species would have been observed if present.

All surveys were conducted during daylight hours under weather conditions that did not preclude observation of plant species (e.g., surveys were not conducted during heavy fog or rain).

## 4 Results

### 4.1 Plant Species Diversity

Ms. Bergman observed 32 species that are included in the plant compendium (Attachment B) during the spring season survey.

A total of 32 species from the Project site are listed in Attachment B, Plant Compendium, of which 6 are native (19%) and 26 non-native (81%). This low native plant diversity reflects the high density of non-native species that have created monotypic stands. The site is dominated almost entirely by monotypic stands of annual bastardcabbage (*Rapistrum rugosum*) and ripgut brome (*Bromus diandrus*) (See Attachment C, Site Photos).

## 4.2 Rare Plant Location Results

No rare plants were observed within the Project site.

## 5 Discussion

The focused rare plant survey found no rare plants during the spring bloom period within the Project site.

Both brodiaea species were blooming within the City of San Marcos on two nearby parcels. Reference checks found Brodiaea blooming with relatively high density less than 2 miles from this site (May 21, 2021). San Diego button celery was observed less than one mile from the site in full bloom and in high density numbers. If threadleaf brodiaea, Orcutt's brodiaea, San Diego button celery, or other rare spring species were present, they would have been observed during the rare plant survey.

It should be noted that rare plants can be found on disturbed sites. However, this site was extraordinarily disturbed with European grasses and broadleaf mustards. The non-natives occurred at such a high density that few native plant species were present. Due to the density and success of non-native species on-site, monotypic stands of non-native grasses and mustard have formed. The Project site has limited plant species diversity.

San Diego button celery typically occurs within wetlands, or grassland habitat with vernal pools which were absent from the Project site. No wetlands were present within the Project site.

A few other rare species had low potential to occur like San Diego thorn-mint (*Acanthomintha ilicifolia*) and small-flowered morning glory (*Convolvulus simulans*). However, due to the levels of disturbance within the Project site and sensitivity of these species, these rare plant species are not expected to occur. In addition, spreading navarretia (*Navarretia fossalis*) had low potential to occur but due to the absence of vernal wetlands, vernal pools, wetlands, and the sensitivity of this species to non-natives, spreading navarretia is not expected to occur.

Overall, the site is exceptionally disturbed, lacks rare spring plant species, and is encompassed by development.

If you have any questions regarding this letter report, please feel free to contact me at ebergman@dudek.com.

Sincerely,



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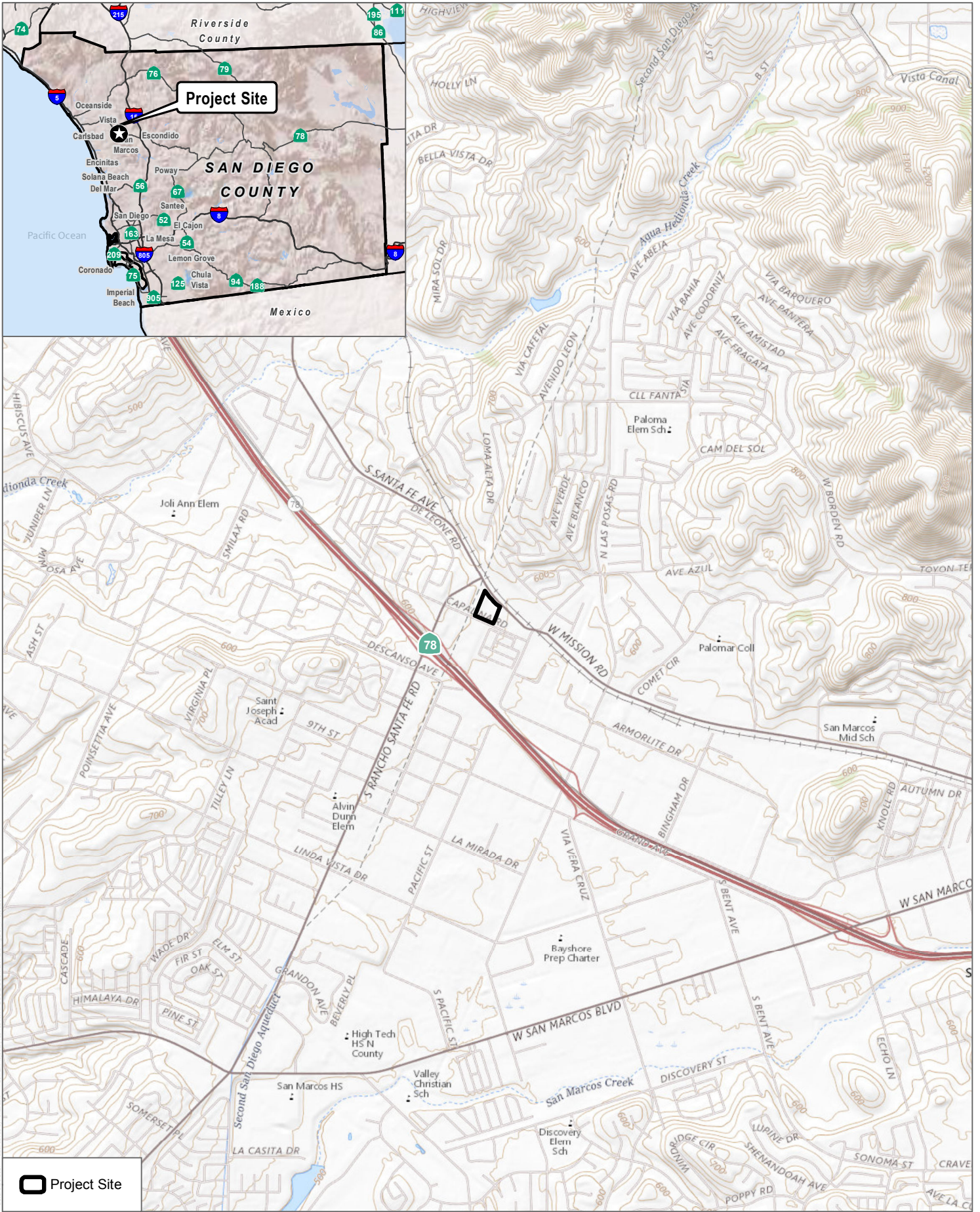
Erin Bergman  
Botanist

Att.: Figure 1  
Attachment A, Reference Site Photos  
Attachment B, Plant Compendium  
Attachment C, Project Site Photos  
cc: Saba Family Trust  
Callie Amoaku, Dudek

## 6 References

- Calflora. 2021. Calflora Plant Database. Accessed July 2020. <https://www.calflora.org/>.
- CDFG (California Department of Fish and Game). 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Prepared by the California Natural Resources Agency, Department of Fish and Game. November 24, 2009.
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- CNPS (California Native Plant Society). 2001. *California Native Plant Society Botanical Survey Guidelines*. December 9, 1983; revised June 2, 2001. [https://cnps.org/wp-content/uploads/2018/03/cnps\\_survey\\_guidelines.pdf](https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf).
- CNPS. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed 2021. <http://www.rareplants.cnps.org>.
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- Jepson Flora Project. 2021. "Jepson eFlora." The Jepson Herbarium. Accessed May 2021. <http://ucjeps.berkeley.edu/interchange/index.html>.
- Reiser. 2001. *The Rare Plants of San Diego County*. Accessed July 2020. [https://download-pdfs.com/v6/preview/?pid=6&offer\\_id=398&ref\\_id=15ae1c2c6c59dae7cf96a4nE0Th5Qm0h\\_e6cef1e4\\_c28f910b&sub1=fh9643&keyword=Rare%20plants%20of%20San%20Diego%20County%20-%20Craig%20H.%20Reiser](https://download-pdfs.com/v6/preview/?pid=6&offer_id=398&ref_id=15ae1c2c6c59dae7cf96a4nE0Th5Qm0h_e6cef1e4_c28f910b&sub1=fh9643&keyword=Rare%20plants%20of%20San%20Diego%20County%20-%20Craig%20H.%20Reiser).
- USDA (U.S. Department of Agriculture). 2021. "California." State PLANTS Checklist. Accessed May 2021. [http://plants.usda.gov/dl\\_state.html](http://plants.usda.gov/dl_state.html).





SOURCE: USGS 7.5-Minute Series San Marcos Quadrangle

**FIGURE 1**  
**Project Location**  
 Saba Family Trust





# Attachment A

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Reference Site Photos



ATTACHMENT A  
REFERENCE SITE PHOTOS



Orcutt's brodiaea (*Brodiaea orcuttii*)



Threadleaf brodiaea (*Brodiaea filifolia*)



San Diego button celery  
(*Eryngium aristulatum* var. *parishii*)





# Attachment B

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Plant Compendium

## Angiosperms

### *Eudicots*

#### **AMARANTHACEAE – AMARANTH FAMILY**

- \* *Schinus molle* – Peruvian pepper tree

#### **ASTERACEAE – SUNFLOWER FAMILY**

*Ambrosia psilostachya* – western ragweed

*Baccharis pilularis* ssp. *consanguinea* – chaparral broom, coyote brush

*Baccharis salicifolia* ssp. *salicifolia* – mule-fat, seep-willow

*Encelia californica* – California encelia

*Grindelia camporum* – gumplant

*Heterotheca grandiflora* – telegraph weed

- \* *Centaurea melitensis* – tocalote
- \* *Hedypnois cretica* – crete hedypnois

#### **BRASSICACEAE – MUSTARD FAMILY**

- \* *Brassica rapa* – turnip, field mustard
- \* *Hirschfeldia incana* – short-pod mustard
- \* *Rapistrum rugosum* – annual bastard-cabbage

#### **CHENOPODIACEAE – GOOSEFOOT FAMILY**

- \* *Chenopodium murale* – nettle-leaf goosefoot
- \* *Salsola tragus* – prickly russian-thistle, tumbleweed

#### **FABACEAE – LEGUME FAMILY**

- \* *Medicago polymorpha* – California burclover
- \* *Melilotus indicus* – Indian sweetclover

#### **GERANIACEAE – GERANIUM FAMILY**

- \* *Erodium botrys* – long-beak filaree/storksbill
- \* *Erodium cicutarium* – red-stem filaree/storksbill

#### **ONAGRACEAE – EVENING-PRIMROSE FAMILY**

- \* *Oenothera speciosa* – beautiful evening-primrose

**PLANTAGINACEAE – PLANTAIN FAMILY**

- \* *Plantago lanceolata* – English plantain, rib-grass

**POLYGONACEAE – BUCKWHEAT FAMILY**

- \* *Rumex crispus* – curly dock

*Monocots*

**ARECACEAE – PALM FAMILY**

- \* *Washingtonia robusta* – Mexican fan palm

**ASPHODELACEAE – ASPHODEL FAMILY**

- \* *Asphodelus fistulosus* – hollow-stem asphodel

**POACEAE – GRASS FAMILY**

- \* *Avena barbata* – slender wild oat
- \* *Bromus diandrus* – ripgut grass
- \* *Bromus hordeaceus* – soft chess
- \* *Cynodon dactylon* – bermuda grass
- \* *Festuca myuros* – rat-tail fescue
- \* *Festuca perennis* – perennial rye grass
- \* *Bromus rubens* – foxtail chess, red brome
- \* *Cenchrus setaceus* – African fountain grass
- \* *Hordeum murinum* – barley

- \* signifies introduced (non-native) species





# Attachment C

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Project Site Photos

ATTACHMENT C  
PROJECT SITE PHOTOS

