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## MEMORANDUM

TO: Robert Fletcher, San Diego Gas & Electric

FROM: Melissa Busby, Busby Biological Services, Inc.

DATE: October 22, 2014

RE: Response to Data Request 107: Provide explanation for “very low” potential for California Orcutt grass (Oc; *Orcuttia californica*).

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The California Public Utilities Commission (CPUC) has identified data needs for the proposed San Diego Gas & Electric Company (SDG&E) Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project (Proposed Project), Application No. 14-04-011. Data Request 107 states the following:

***“Provide explanation for ‘very low’ potential for California Orcutt grass (Oc; *Orcuttia californica*).*”**

*The [Proponent’s Environmental Assessment (PEA)] indicates that Oc has very low potential to occur and that vernal pool habitat is present, but the BSA is outside the known range of the species in San Diego County. However, the [California Natural Diversity Database (CNDDDB)] shows a location for this species at the western end of the alignment, and a vernal pool is mapped at the western end of the alignment.”*

To respond to this data request, Busby Biological Services, Inc. (BBS) and Rocks Biological Consulting, Inc. (RBC) analyzed available data for California Orcutt grass and conducted a brief site visit to confirm the previously determined potential for occurrence for this species. This memorandum provides a brief description of California Orcutt grass followed by a summary of the methods and results for this task.

This information is intended to supplement the information provided in the Biological Technical Report (BTR) prepared for the Proposed Project (BBS 2014a). For additional information pertaining to the biological resources associated with the Proposed Project, please refer to the BTR.

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## CALIFORNIA ORCUTT GRASS - SPECIES INFORMATION

California Orcutt grass is a federally listed endangered species, a state-listed endangered species, a California Rare Plant Rank (CRPR) 1B.1 species, and an *SDG&E Subregional NCCP*-covered species. This inconspicuous annual grass is restricted to southern California (Los Angeles, Riverside, San Diego, and Ventura counties) and few historical occurrences in northern Baja California, Mexico (U.S. Fish and Wildlife Service [USFWS] 2011, California Native Plant Society [CNPS] 2014). California Orcutt grass is a vernal pool obligate species and is found only in deep, ephemeral vernal pools underlain by clay soils (USFWS 2011), and colonizes adjacent vernal pools through wind dispersal. California Orcutt grass is often associated with a variety of other federally listed vernal pool taxa, including San Diego button celery (*Eryngium aristulatum* var. *parishii*), San Diego mesa mint (*Pogogyne abramsii*), Otay mesa mint (*Pogogyne nudiuscula*), spreading navarretia (*Navarretia fossalis*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and Riverside fairy shrimp (*Streptocephalus woottoni*).

Threats to California Orcutt grass include urban and agricultural development, grazing, altered hydrology, off-road vehicle use, trampling, and invasion of nonnative plants. As a result of these threats, California Orcutt grass was state-listed endangered in 1979 (USFWS 2011) and federally listed as endangered in 1993 (USFWS 1993). At the time of its federal listing in 1993, California Orcutt grass was known from only four extant locations in Riverside and San Diego counties. In 2011, however, it was known from 28 extant locations, 13 of which occur in San Diego County (USFWS 2011).

Within San Diego County, this species is historically known to occur naturally in Otay Mesa and Mira Mesa, and from a single location in Carlsbad (USFWS 2011). The closest naturally occurring population to the Biological Survey Area (BSA) for the Proposed Project is located in the western portion of U.S. Marine Corps Air Station, Miramar and approximately 4 miles south of the BSA (CNDDDB occurrences 43 and 44; Figure 1).

A single CNDDDB occurrence for California Orcutt grass (CNDDDB occurrence 45) has also been recorded adjacent to the westernmost portion of the BSA, southeast of the Peñasquitos Substation (Figures 1 and 2). Restoration activities in vernal pool habitat just outside of the BSA included the introduction of California Orcutt grass along with other vernal pool species. The last known observation of the California Orcutt grass at this location was in 2007 (CNDDDB 2014), and this population is presumed to be extant despite the lapse in available current data. However, research indicates that restored pools that lack appropriate mycorrhizal fungi may not be able to support self-sustaining populations of California Orcutt grass (CPC 2014).

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## **METHODS**

To evaluate the potential for California Orcutt grass to occur within the BSA, a detailed literature and database review was performed, the special status-plant species survey summary report prepared for the Proposed Project (BBS 2014b) was reviewed, a focused habitat assessment was conducted in the areas that were not previously surveyed, and a focused vernal pool evaluation was completed. The methods for each of these are described in detail below.

### **Literature & Database Review**

A detailed literature review for California Orcutt grass was conducted to supplement the information provided in the BTR/PEA (BBS 2014a). In addition, historical occurrence databases (e.g., CNDDDB, SanGIS, Sunrise Powerlink) were searched and other references were consulted to better understand the historical location data and distribution of this species, particularly in San Diego County.

### **Focused Special-Status Plant Species Surveys Conducted for the Proposed Project**

Focused special-status plant species surveys were conducted for the Proposed Project by experienced botanists familiar with the target special-status plant species. The botanists performed the focused special-status plant species surveys by walking meandering transects throughout the original BSA, which included (1) a 500-foot-wide survey corridor along the approximately 16.5-mile alignment, (2) the existing Sycamore Canyon and Peñasquitos Substations, and (3) the proposed Sycamore and Stowe construction yards. These surveys included three survey rounds – one in fall 2013, one in early spring 2014, and one in late spring 2014.

California Orcutt grass was included in the target species list for the focused special-status plant species surveys conducted for the Proposed Project. All vernal pools within the BSA were assessed during the fall 2013 surveys and thoroughly surveyed for California Orcutt grass during the early spring 2014 and late spring 2014 surveys by highly qualified botanists who are familiar with this species and its phenology. Because many vernal pool species are very small and short-lived, the vernal pools were surveyed thoroughly and carefully for California Orcutt grass and other special-status vernal pool plant species.

To respond to Data Request 107, the data obtained during these focused special-status plant species surveys were reviewed to determine if the probability for occurrence for California Orcutt grass was accurately assessed in the BTR/PEA for the Proposed Project.

### **Focused Habitat Assessment in Areas Not Yet Surveyed**

A focused habitat assessment for special-status plant species was conducted in fall 2014 to evaluate the areas that are part of the Proposed Project but that were not included in the

original BSA and, thus, were not surveyed during the previous efforts. During these focused habitat assessments, the new survey areas were assessed for their potential to support the special-status plant species with a potential to occur within the BSA, including California Orcutt grass.

### **Focused Vernal Pool Evaluation for California Orcutt Grass**

Potentially suitable vernal pool habitat located within the BSA was surveyed during fall 2013, early spring 2014, and late spring 2014, and was revisited during fall 2014 to critically review the vernal pool conditions and their potential to support California Orcutt grass. In addition, three restored vernal pools that are located adjacent to the BSA – where California Orcutt grass was planted as part of the restoration efforts and is, therefore, known to occur – were also visited to provide further data needed to confirm the previously determined potential for occurrence for California Orcutt grass within the BSA.

## **RESULTS**

The results of the literature and database review, special status-plant species survey summary report review, focused habitat assessment in the areas not yet surveyed, and focused vernal pool evaluation are provided, below.

### **Literature & Database Review**

The results of the detailed literature and database review were used to prepare the California Orcutt grass species information provided above. CNDDDB occurrences 43 and 44 (Figure 1), which are located approximately 4 miles south of the BSA in the western portion of U.S. Marine Corps Air Station, Miramar, represent the closest known natural occurrence of California Orcutt grass to the BSA. CNDDDB occurrence 45 (Figures 2 and 3) is located adjacent to the westernmost portion of the BSA, southeast of the Peñasquitos Substation. This point represents the location of California Orcutt grass that was introduced along with other vernal pool species as part of the restoration activities in several vernal pools that are located outside of the BSA.

### **Focused Special-Status Plant Species Surveys Conducted for the Proposed Project**

Only one vernal pool within the BSA provides potential habitat for California Orcutt grass. Other vernal pools species, such as San Diego button-celery (*Eryngium aristulatum* var. *parishii*), dwarf woolly marbles (*Psilocarphus brevissimus* var. *brevissimus*), African brass-buttons (*Cotula coronopifolia*), and grass poly (*Lythrum hyssopifolia*) were observed during the focused special-status plant species surveys that were conducted for the Proposed Project, indicating that, despite drought conditions, California Orcutt grass would have been detectable during the spring 2014 surveys if it were present. However, no California Orcutt

grass was observed in this vernal pool or in any other part of the BSA during the fall 2013, early spring 2014, or late spring 2014 surveys.

### **Focused Habitat Assessment in Areas Not Yet Surveyed**

No suitable vernal pool habitat with a potential to support California Orcutt grass was identified during the focused habitat assessment conducted in fall 2014 within the portions of the BSA that were not previously surveyed.

### **Focused Vernal Pool Evaluation for California Orcutt Grass**

The single vernal pool within the BSA that provides potential habitat for California Orcutt grass was visited three times during the focused special-status plant species surveys conducted for the Proposed Project, and it was visited again on October 21, 2014, to analyze the conditions within the vernal pool and determine the potential for occurrence of California Orcutt grass in the vernal pool.

Surveyors determined that the vernal pool provides very low quality habitat for California Orcutt grass because it does not provide the deep, clay soils and other attributes required by this species (Photo 1, below). No evidence of California Orcutt grass was observed in any of the vernal pools during the October 2014 visit; however, this is not unexpected, as California Orcutt grass is an ephemeral annual species, and it was not detected during the spring 2014 surveys. San Diego button celery, which was mapped in this vernal pool during the spring 2014 surveys and requires similar conditions to germinate, was observed in fruit in this vernal pool during the October 2014 visit.



**Photo 1: Vernal pool with very low quality habitat for California Orcutt grass**

Surveyors also visited the three restored vernal pools located adjacent to the BSA where California Orcutt grass was introduced to see if there was any forensic evidence of California Orcutt grass in these pools that would confirm that the species germinated during spring 2014 and that the population is still extant. Surveyors also visited these restored vernal pools to assess their overall quality and to compare the condition of these vernal pools, which are known to support California Orcutt grass, to the one within the BSA. No previous surveys had been conducted in these vernal pools because they are outside of the BSA. San Diego button celery was observed in fruit in these pools; however, remnants of California Orcutt grass were not observed.

## **CONCLUSION/DISCUSSION**

California Orcutt grass has a very low potential to occur within the BSA.

While the BSA is outside the range in which this species naturally occurs, California Orcutt grass has been documented as recently as 2007 in restored vernal pools that are located just outside the BSA, where this species was introduced as part of the restoration effort in those areas. However, the single vernal pool within the BSA that provides potential habitat for this species was assessed in fall 2013 and meticulously surveyed twice in spring 2014 by highly qualified botanists who are familiar with this species and its phenology, and California Orcutt grass was not observed during any of these surveys. This vernal pool was visited again in October 2014, and no remnants of California Orcutt grass were observed.

Typically, a species that is not observed during a thorough special-status plant species survey would be classified as “not expected to occur within the BSA”; however, the vernal pool within the BSA provides low quality habitat for the species and – because California Orcutt grass is wind dispersed – could, theoretically, be colonized by the populations of California Orcutt grass that have been documented within the adjacent restored pools, assuming they are extant. As such, California Orcutt grass has a very low potential for occurrence within the BSA.

Impacts to California Orcutt grass are not anticipated to result from implementation of the Proposed Project. Regardless of its potential for occurrence within the BSA, the California Orcutt grass is a vernal pool obligate, and impacts to the single vernal pool that provides potential habitat for this species will be avoided through Proposed Project design features. As such, no additional avoidance, minimization, or mitigation measures would be required for this species.

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## REFERENCENCES

### Busby Biological Services, Inc. (BBS)

- 2014a Biological Technical Report for Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project, City of San Diego, San Diego County, California. March 2014.
- 2014b Special-Status Plant Survey Summary Report for the Proposed San Diego Gas & Electric Company Sycamore to Peñasquitos 230 Kilovolt Transmission Line Project, San Diego County, California. June 2014.

### California Native Plant Society (CNPS)

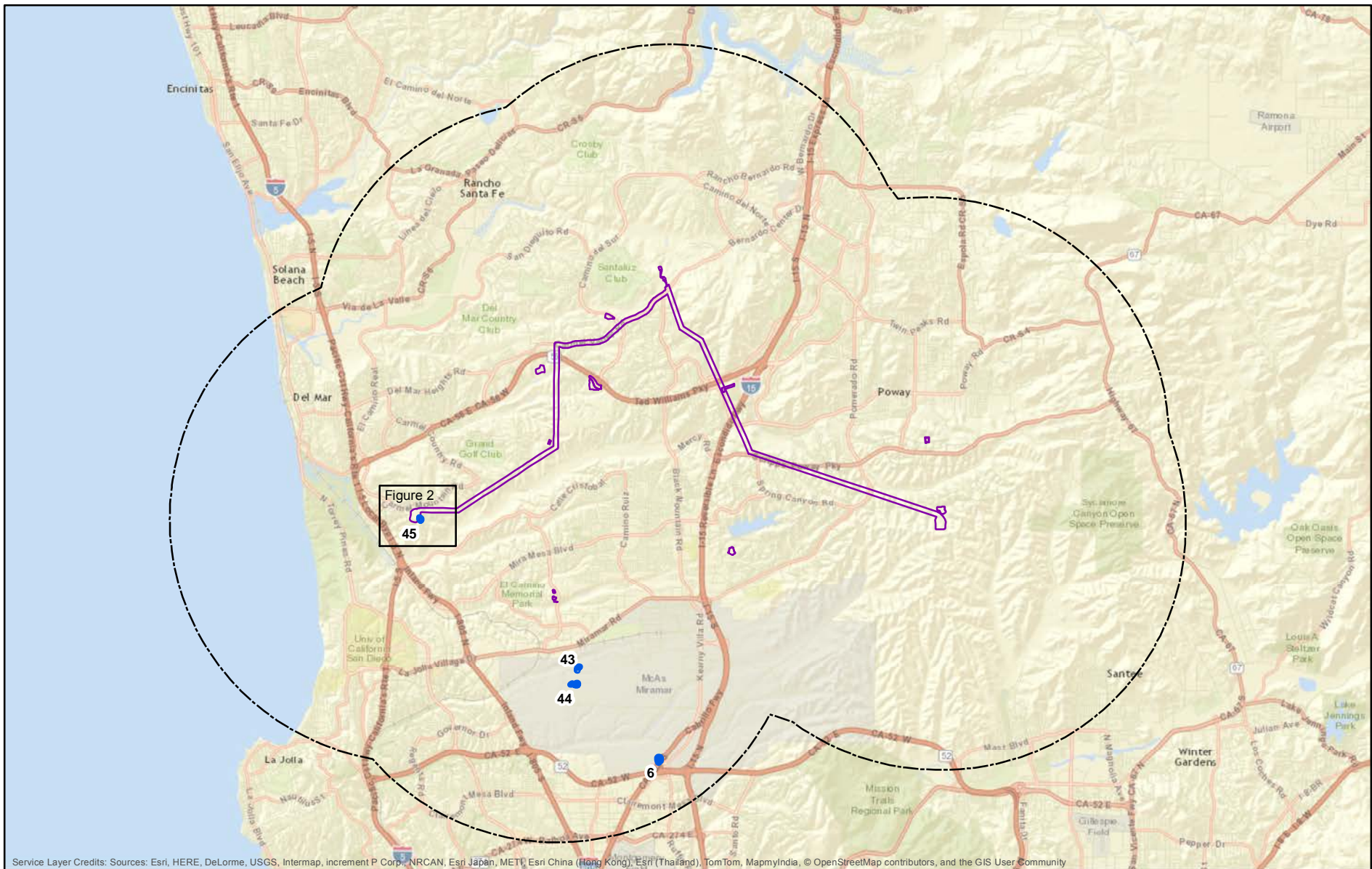
- 2014 Inventory of Rare and Endangered Plants (online edition, v7-14jun). California Native Plant Society. Sacramento, CA. Available at: <http://www.cnps.org/inventory>. Accessed October 2014.

### Center for Plant Conservation (CPC)

- 2014 National Collection Plant Profile available at: [http://www.centerforplantconservation.org/collection/cpc\\_viewprofile.asp?CPCNum=3038](http://www.centerforplantconservation.org/collection/cpc_viewprofile.asp?CPCNum=3038). Accessed October 2014.

### United States Fish and Wildlife Service (USFWS)




- 1993 Determination of Endangered Status for Three Vernal Pool Plants and the Riverside Fairy Shrimp. August 3, 1993.
- 2011 *Orcuttia californica* (California Orcutt grass) 5-Year Review: Summary and Evaluation. March 11, 2011.



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### Sycamore to Peñasquitos 230 kV Transmission Line Project Historical *Orcuttia californica* Locations Figure 1

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-  BSA
-  CNDDDB Occurrence Locations
-  5-Mile Buffer Around BSA











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**Sycamore to Peñasquitos 230 kV Transmission Line Project**  
*Orcuttia californica* Habitat in BSA

**Figure 2**

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-  BSA
-  CNDDB Occurrence 45
-  Actual CNDDB Occurrence 45 Location
-  Very Low Potential Habitat in BSA

