

**APPENDIX BR-1B**  
**2023 PROTOCOL-LEVEL BOTANICAL SURVEY RESULTS**  
**MEMORANDUM**

## MEMORANDUM

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**To:** William Risse and Daniel Menahem (Sacramento Valley Energy Center, LLC)  
**From:** Morgan Kennedy, Dudek  
**Subject:** 2023 Protocol-Level Botanical Survey Results Memorandum, Sloughhouse Solar Project  
**Date:** September 15, 2023  
**cc:** David Hochart, Robert Hall, Travis Marella (Dudek)  
**Attachments:** A-Figures

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### 1 Introduction

On behalf of Sloughhouse Solar, LLC (Client), Dudek has prepared this 2023 Protocol-Level Botanical Survey Results Memorandum (Memo). This Memo presents the purpose, methods, and findings that summarize protocol-level botanical surveys focused on special-status plant species for the Sloughhouse Solar Project (Project) (Figure 1, Project Location).

### 2 Project Overview

The Project is a proposed solar photovoltaic energy-generating facility located on the southwest corner of Meiss Road and Dillard Road, adjacent to an existing solar energy facility (i.e., Dillard Road Solar Power Facility in Sacramento County, California). The Project would construct, operate, and decommission a solar generation and energy storage facility within a solar development area (i.e., footprint) of approximately 371.72 acres (i.e., referred to herein as the 'solar development area') (Figure 2, Project Site).

### 3 Methods

Dudek conducted protocol-level botanical field surveys within the solar development area and within 250 feet of the limits of the solar development area. The purpose of protocol-level botanical surveys is to identify special-status plant resources that may be potentially subject to agency jurisdiction pursuant to regulations under FESA, CESA, CFGC, CEQA Guidelines, and the Sacramento County General Plan. The botanical field surveys were performed in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Protocol for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), and the *Botanical Survey Guidelines* (CNPS 2001). The protocol-level botanical field surveys were conducted during the appropriate floristic bloom period for

special-status plant species known to occur within the Project area and vicinity (i.e., up to five miles from the solar development area).

Prior to conducting protocol-level botanical surveys, Dudek first conducted reference population checks at known locations for species that were found to have a potential to occur within the solar development area during the database and literature evaluations (*Biological Technical Report- Alternative Project Site Plan- Dudek, October 2022*). Dudek conducted reference population checks for mid to early late bloom species. Reference population checks yielded positive identification of pincushion navarretia (*Navarretia myersii* ssp. *myersii*), which typically blooms April through May; and Ahart’s dwarf rush (*Juncus leiospermus* var. *ahartii*), which typically blooms March through May. All other reference population checks for known special-status plant species yielded no observations.

Protocol-level surveys were completed using a systematic transect approach within suitable habitats for special-status species that have the potential to occur. All plant species encountered were identified to the taxonomic level appropriate to determine species and regulatory status, if needed. Botanical resources were recorded and mapped in the field using a Trimble R1 GNSS Receiver with sub-meter accuracy and ArcGIS Collector app for iOS.

## 4 Results

Suitable habitat including valley grasslands and aquatic resource features resources (e.g., vernal pools, pond and lake margins, mesic areas) within the solar development area, and within 250 feet of the solar development area, were surveyed on May 22, 2023 and August 2, 2023 by qualified Dudek Botanists Chris Bronny and Paul Keating. Table 1 below provides a summary of protocol-level botanical surveys and associated results conducted for the Project solar development area. No rare plants were observed or detected during protocol-level surveys<sup>1</sup>.

**Table 1. Summary Of 2023 Protocol-Level Botanical Survey Results**

Qualified Botanist	Focal Special-Status Plant Species	Results of Survey
<b>Pass 1- May 22, 2023</b>		
Chris Bronny	valley brodiaea ( <i>Brodiaea rosea</i> ssp. <i>vallicola</i> )	Not observed
	dwarf downingia ( <i>Downingia pusilla</i> )	Not observed
	Tuolumne button-celery ( <i>Eryngium pinnatisectum</i> )	Not observed
	Boggs Lake hedge-hyssop ( <i>Gratiola heterosepala</i> )	Not observed
	hogwallow starfish ( <i>Hesperovax caulescens</i> )	Not observed
	Ahart’s dwarf rush ( <i>Juncus leiospermus</i> var. <i>ahartii</i> )	Not observed
	Legenere ( <i>Legenere limosa</i> )	Not observed
	hoary navarretia ( <i>Navarretia eriocephala</i> )	Not observed
	pincushion navarretia ( <i>Navarretia myersii</i> ssp. <i>myersii</i> )	Not observed
	Sacramento Orcutt grass ( <i>Orcuttia viscida</i> )	Not observed
<b>Pass 2- August 2, 2023</b>		
Paul Keating	Tuolumne button-celery ( <i>Eryngium pinnatisectum</i> )	Not observed
	Boggs Lake hedge-hyssop ( <i>Gratiola heterosepala</i> )	Not observed
	slender Orcutt grass ( <i>Orcuttia tenuis</i> )	Not observed
	Sanford’s arrowhead ( <i>Sagittaria sanfordii</i> )	Not observed

<sup>1</sup> If work activities begin before the survey period in 2024, these survey results will constitute the pre-construction survey.

## 5 Conclusion and Recommendations

No special-status plant species were observed during the 2023 protocol-level botanical surveys conducted in the Project solar development area in 2023. In addition, no special-status plant species were observed during previous protocol-level botanical surveys conducted in the Project solar development area in 2021 and 2022 (*Biological Technical Report- Alternative Project Site Plan- Dudek, October 2022*).

There are eight special-status plant species have a potential to occur within the solar development area, including valley brodiaea (*Brodiaea rosea* ssp. *vallicola*), dwarf downingia (*Downingia pusilla*), Tuolumne button-celery (*Eryngium pinnatisectum*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), hogwallow starfish (*Hesperovax caulescens*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Legenere (*Legenere limosa*), hoary navarretia (*Navarretia eriocephala*), pincushion navarretia (*Navarretia myersii* ssp. *myersii*), Sacramento Orcutt grass (*Orcuttia viscida*), slender Orcutt grass (*Orcuttia tenuis*), and Sanford's arrowhead (*Sagittaria sanfordii*). Suitable habitat for these species includes valley grasslands and several types of aquatic resources (e.g., vernal pools, pond and lake margins, mesic areas), like those identified within the solar development area. Special-status plant resources may be subject to agency jurisdiction pursuant to regulations under the federal endangered species act (FESA), the California endangered species act (CESA), California Fish and Game Code (FGC), California Environmental Quality Act (CEQA) Guidelines, and the Sacramento County General Plan. Note that negative survey results during one field season does not constitute evidence that a plant occurrence is absent from a location (CDFW 2018).

## 6 References

- CDFW. 2018. *Protocols for Surveying and Evaluating Impact to Special-Status Native Plant Populations and Sensitive Natural Communities*. Department of Fish and Wildlife, California Natural Resources Agency, State of California. March 20, 2018. Accessed May 2023. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>.
- CNPS (California Native Plant Society). 2001. *Botanical Survey Guidelines*. Revised June 2, 2001. Accessed May 2023. [http://cnps.org/wp-content/uploads/2018/03/cnps\\_survey\\_guidelines.pdf](http://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf).
- Dudek. 2022. *Biological Technical Report for the Preferred Project Site Plan*. Prepared by Dudek for Sloughhouse Solar, LLC. Sacramento, California. October 2022.
- USFWS. 2000. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants*. January 2000. Accessed June 17, 2021. <https://www.fws.gov/ventura/docs/species/protocols/botanicalinventories.pdf>.

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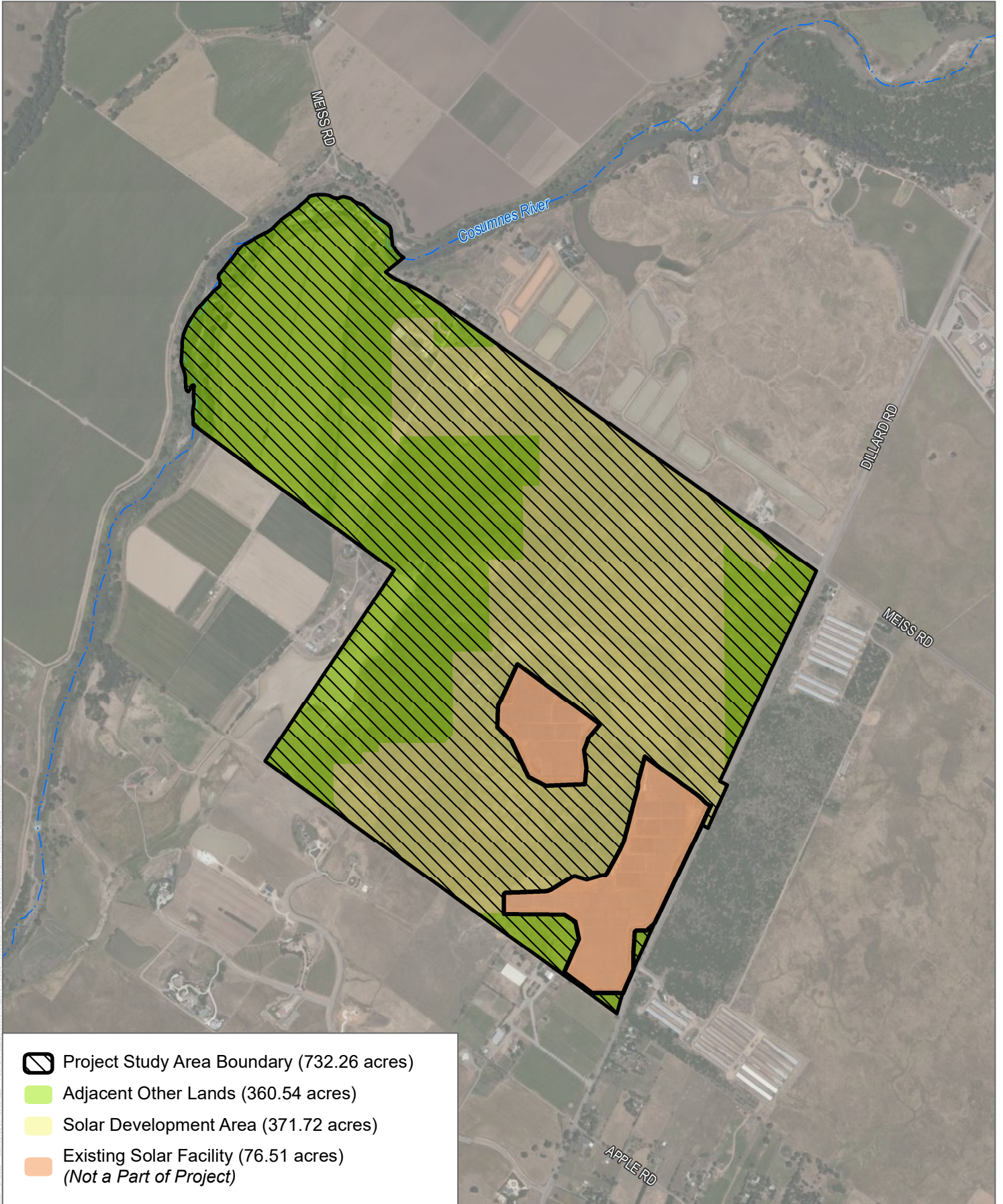
# Attachment A

Figures









SOURCE: Bing Maps (2020), Sacramento County (2019), Environmentally Preferred Alternative Site Plan - DESRI (6/24/2022)

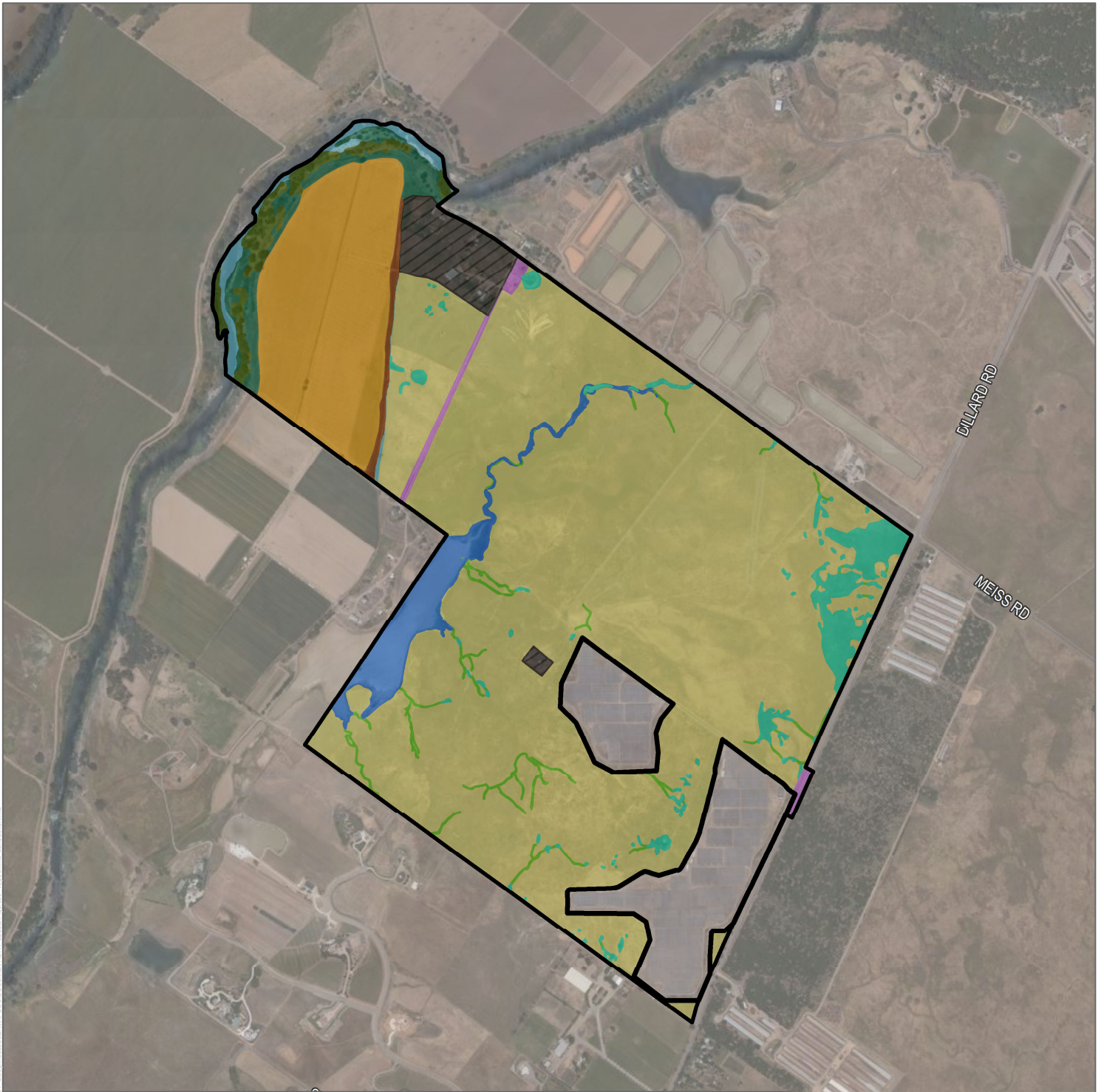
**FIGURE 2**

**Project Setting**

Sloughouse Solar Project







- |  |                                |
|--|--------------------------------|
| Project Study Area Boundary (732.26 acres)       | S : Swale                      |
| <b>Vegetation Communities / Land Cover Types</b> | SW : Seasonal Wetlands         |
| AGR : Agriculture                                | URB : Urban                    |
| CAG : California Annual Grassland                | VFR : Valley Foothill Riparian |
| HYDRO : Streams / Creeks                         | VG : Valley Grassland          |
| LDD : Low Density Development                    | VP : Vernal Pool               |
| MRW : Mixed Riparian Woodland                    |                                |

SOURCE: Bing Maps (2020), Sacramento County (2019), Environmentally Preferred Alternative Site Plan - DESRI (6/24/2022)