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Document Title:	Willow Rock Sensitive Plant Survey 2024 Addendum
Description:	N/A
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Organization:	WSP USA Inc.
Submitter Role:	Applicant Consultant
Submission Date:	8/5/2024 4:15:30 PM
Docketed Date:	8/5/2024

WILLOW ROCK ENERGY STORAGE CENTER
RESULTS OF SENSITIVE PLANT SPECIES SURVEYS

2024 Addendum

WILLOW SPRINGS, KERN COUNTY, CALIFORNIA

Prepared for:

GEM A-CAES LLC
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Denver, CO 80202

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Riverside, CA 92505

August 2024

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1.0 INTRODUCTION

WSP USA Environment & Infrastructure Inc. (WSP) was contracted by GEM A-CAES LLC, a subsidiary of Hydrostor Inc. (Hydrostor), to conduct biological resources surveys at the site of the proposed Willow Rock Energy Storage Center (WRESC) in the unincorporated community of Ansel, Kern County, California. These studies were conducted in support of the preparation of the California Energy Commission's Application for Certification. As part of the 2023 biological surveys, WSP was retained to conduct focused surveys for sensitive plant species in the WRESC project area (WSP 2024) as defined in Table 1 below,[1] which includes an energy storage facility, a gen-tie transmission line, and additional workspace. Accessible portions were identified are areas within public road rights-of-way, parcels owned by the applicant, or parcels with right-of-entry agreements.

Hydrostor updated the WRESC project design to include additional project features following the 2023 field survey season. This addendum report presents the methods, results, and discussion of the focused sensitive plant species surveys conducted in 2024 within additional project areas (described below) that were not included in the 2023 surveys. All figures referenced in this report are provided in Appendix A; photographs may be provided upon request.

1.1 Project Description

As part of the on-going data collection, additional focused surveys are presented to document the presence of sensitive plants and their associated habitat in additional workspaces areas and alternative gen-tie transmission line right-of-way alignments (gen-tie alignments). These areas are described as P2 North (47 acres) and P2 South (10 acres), as well as approximately 3.69 miles of additional gen-tie alignments (Figure 1, Regional Location). In the context of this report, "project site" specifically refers to the project footprint, including all linear transmission lines and other supporting ancillary features while "project area" refers to just the additional project areas that were added for the additional 2024 addendum.

1.2 Project Location and Topography

The project area is located on private property in and around the rural community of Ansel within the 7.5-minute Soledad Mountain and Rosamond, California, U.S. Geological Survey topographic quadrangle. P2 north and P2 south are located east of the State Route 14, and the additional gen-tie alignments are located west of State Route 14 (Figure 1, Regional Location). The project site is located within portions of Sections 31, 32, and 33 of Township 10 North and Range 12 West; portions of Section 4 of Township 9 North and Range 12 West; and portions of Sections 14, 15, of Township 9 North and Range 13 West (Figure 2, Historic USGS Topographic Map).

[1] Table 1 defines and lists sensitive plant species with reference to either their status under the California Endangered Species Act (CESA), State Rank, California Rare Plant Rank (CRPR) or Threat Rank.

Topography in the project site slopes from northwest to southeast with flat areas in the southern portions and gently rolling hills in the central portion of the project site. Elevations range from approximately 2,400 feet (732 meters) to 2,720 feet (830 meters) along Dawn Road (Figure 3, Local Vicinity).

2.0 METHODS

Information on sensitive plant presence and habitat was obtained from a background literature review and field surveys.

2.1 Literature Review and Records Search

A literature review and record search were conducted to identify occurrences of special status plant species within 5 miles of the project area. The review included:

- A report from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base for the project site and a 5-mile buffer radius (CDFW 2024)
- The California Native Plant Society includes records from the project site and a 5-mile radius (CNPS 2024)
- Pertinent documents from the WSP USA library and project files (e.g., other biological surveys from the WRESC project and general vicinity)
- Aerial photographs
- Online sources such as the iNaturalist website (consulted for recent rare plant locality records and ranges [when not obscured])

2.2 Sensitive Plant Surveys

Sensitive plant surveys were completed in two components: an initial field reconnaissance to evaluate the suitability of existing habitat for sensitive plants followed by a focused sensitive plant survey to document target sensitive plant populations that were identified during the literature review (CNPS 2024). The field reconnaissance survey was led by WSP Senior Biologist Nathan Moorhatch on March 25, 2024. The surveys were conducted in the project area and a 500-foot buffer around the project area, collectively referred to as the sensitive plant "study area."

Focused sensitive plant survey methodology was guided by CDFW (2018), California Native Plant Society (CNPS 2001), Cypher (2002), and the U.S. Fish and Wildlife Service (USFWS 2000). Surveys were conducted during appropriate blooming periods for target species (CNPS 2024). Surveys were conducted by systematically walking transects spaced approximately 5 meters apart in suitable habitat to provide thorough coverage of the project area.

Plants encountered were identified to the taxonomic level necessary to determine their rarity and listing status and the survey was conducted at the time of year when most species were both evident and identifiable. Species that could not be identified in the field were collected and submitted for further

investigation. Scientific and common names of plants followed *The Jepson Manual: Higher Plants of California* (Balwin et al. 2012) or more recent published taxonomical revisions of genera.

All plant species observations were recorded in field notes, representative photos were taken and sensitive plant species data including number of individuals, were recorded using global positioning system technology.

Surveys were conducted on April 22 and June 3 to 5, 2024, by WSP biologists Nathan Moorhatch, Scott Crawford, Tim Chumley, Emily Urquidi, Melanie Bukovac, Sarah Williams, Melissa Bukovac, and Phil Clevinger.

3.0 RESULTS

3.1 Literature Review

The 29 sensitive plant species as defined by the Status Codes in **Table 1** were assessed as having potential to occur in or within a 10-mile radius of the project area, based on data obtained from the literature review, known occurrences proximal to the project site, and an evaluation of suitable habitat.

Table 1. Sensitive Plant Species Occurrence Potential

Scientific Name	Common Name	Status[1]			Habitat
		Federal	State	CRPR	
Allium howellii var. clokeyi	Mt. Pinos onion	None	S2	1B.3	Grows at elevations of 4,265 to 6,100 feet in meadows and seeps, Pinyon/Juniper Woodland, and Great Basin Scrub. Blooms (B): April–June
Astragalus hornii var. hornii	Horn's milk-vetch	None	S1	1B.1	Alkaline sites (often associated w lake margins) 60–850 meters (m). Blooms (B): May–September
Calochortus striatus	alkali mariposa-lily	None	S2S3	1B.2	Chaparral, chenopod scrub, meadows, and seeps, Mojavean desert scrub, alkaline, mesic. 70 to 1,595 meters. Blooms April to June.
Camissonia kernensis ssp. *kernensis*	Kern County evening primrose	None	S3	4.3	Granitic gravelly or sandy chaparral, Joshua tree "woodland", Pinyon and juniper woodland. 2130-6990 m B: March-May
Canbya candida	white pygmy-poppy	None	S3S4	4.2	Usually on granitic soils (gravelly or sandy) in Joshua tree woodland, Mojave Desert scrub, and pinyon and juniper woodland. 600–1,460 m. B: March–July
Chorizanthe spinosa	Mojave spineflower	None	S4	4.2	Alkaline (mainly) areas including on playas, in Mojave Desert scrub, chenopod scrub, and Joshua tree "woodland." 6 to 1,300 meters. B: March to July.
Delphinium recurvatum	recurved larkspur	None	S2?	1B.2	Alkaline soils in valley saltbush or chenopod scrub, also valley and foothill grassland, cismontane woodlands. 3 to 790 meters. B: March to June.

Scientific Name	Common Name	Status[1]			Habitat
		Federal	State	CRPR	
Eriastrum rosamondense	Rosamond eriastrum	None	S1?	1B.1	Alkali pool beds w/ interspersed low hummocks in open chenopod scrub, often sandy. 700–720 m. B: April–May
Eriastrum sparsiflorum	few-flowered eriastrum	None	S4	4.3	Open areas often on granitic sand, on desert slopes, pinyon/juniper woodland, yellow-pine forests, sagebrush scrub. 1,075–1,710 m. B: May–September
Eriastrum tracyi	Tracy's eriastrum	None	S3	3.2	Cismontane woodland, chaparral, and valley and foothill grassland. 315–1,780 m. B: May–July
Eriophyllum mohavense	Barstow woolly sunflower	None	S2	1B.2	Chenopod scrub, Mojavean desert scrub, and playa areas 500–960 m. B: March–May
Fritillaria pinetorum	pine fritillary	None	S4	4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest. 3300-10825 m B: May-July
Gilia interior	inland gilia	None	S4	4.3	Rocky slopes in cismontane woodland, lower montane coniferous forest, and Joshua tree woodland. 700–1,700 m. B: March-May
Goodmania luteola	golden goodmania	None	S3	4.2	Mojavean Desert scrub, alkaline habitats, including playas, meadows and seeps, and alkaline areas in valley and foothill grassland. 20–2,200m. B: April–August
Layia heterotricha	pale-yellow layia	None	S2	1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. 300–1,705m. B: March–June
Loeflingia squarrosa var. artemisiarum	sagebrush loeflingia	None	S2	2B.2	Sandy flats and dunes, sandy areas around clay slicks in Great Basin, Sonoran and Mojave Desert scrub. 700–1,615 m. B: April–May
Monardella exilis	Mojave monardella	None	S3	4.2	Sandy soils in chenopod scrub, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, Mojavean Desert scrub, pinyon and juniper woodland. 600–2050 m. B: April–September
Monardella linoides ssp. oblonga	Tehachapi monardella	None	S2	1B.3	Lower and Upper montane coniferous forest, Pinyon-juniper woodland. 1,430 to 2,655 meters, B: (May) June to August.
Nemacladus secundiflorus var. robbinsii	Robbins' nemacladus	None	S2	1B.2	Clearings/openings in chaparral, and valley and foothill grasslands. 350 to 1,700 meters. B: April to June.
Opuntia basilaris var. brachyclada	short-joint beavertail	None	S3	1B.2	A somewhat "cold-adapted" form of the common beavertail cactus. Found in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. 425–1,800 m. B: April–August

Scientific Name	Common Name	Status[1]			Habitat
		Federal	State	CRPR	
Perideridia pringlei	adobe yampah	None	S4	4.3	Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland. 300–1,800 m. B: April–July
Puccinellia simplex	California alkali grass	None	S2	1B.2	Vernal pools, chenopod scrub, meadows and seeps, valley and foothill grasslands often on alkaline flats, lake margins, or areas that are vernally mesic 2–930 m. B: March–May
Saltugilia latimeri	Latimer's woodland-gilia	None	S3	1B.2	Grows on granitic or sandy soils in rocky areas, washes, in chaparral, Mojavean desert scrub, and pinyon and juniper woodland, 400–1,900 m. B: March–June
Senna covesii	Cove's cassia	None	S3	2B.2	Sonoran desert scrub 225 to 1,295 meters. B:March-June
Syntrichopappus lemmonii	Lemmon's syntrichopappus	None	S4	4.3	Chaparral, coastal scrub, Joshua tree woodland, pinyon and juniper woodland, sometimes on gravelly or sandy soils. 500–1830 m. B: April–May
Yucca brevifolia	Western Joshua tree	None	CC	CBR	Mojavean desert scrub, Joshua tree "woodland."

[1]Status Codes:

State (CESA)
CC=State Candidate

State Rank
S2 = Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 = Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent & widespread declines, threats, or other factors.
S4 = Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range &/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

California Rare Plant Rank (CRPR)
1B = Rare or Endangered in California & elsewhere
2A = Presumed extirpated in California, but more common elsewhere
2B = Rare or Endangered in California, more common elsewhere
3 = Plants for which we need more information – Review list
4 = Plants of limited distribution – Watch list

Threat Rank:
0.2 Moderately threatened in California — 20-80% of occurrences threatened / moderate degree and immediacy of threat.
0.3 Not very threatened in California — Less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known.

CBR- Considered but Rejected

Alkali mariposa lily (*Calochortus striatus*) was the only sensitive plant species previously recorded to occur within the project area (Figure 4, California Natural Diversity Database Plant Species).

3.2 Sensitive Plant Surveys

Three sensitive plant species were identified in the study area during the focused surveys: sagebrush loeflingia (*Loeflingia squarrosa var. artemisiarum*), Mojave monardella (*Monardella exilis*), and Western Joshua tree (*Yucca brevifolia*) (Figure 5, Special Status Plants). Sagebrush loeflingia was identified within a 500-foot buffer around the P2 South and the gen-tie transmission line alternative near Felsite Avenue and Tropico Road. Mojave monardella was identified in both the P2 North and P2 South additional workspace areas as well as in the eastern portion of the gen-tie transmission line alternative (immediately

west of Highway 14. Western Joshua Tree was identified throughout the P2 North and P2 South additional workspace areas as well as in the eastern portion of the gen-tie transmission line alternative north of Dawn Road. Although alkali mariposa lily was previously recorded to occur within the project area, no individuals were identified during the 2024 focused plant surveys. A list of floristic species detected throughout the entire study area (excluding obvious horticultural plantings) is presented in Appendix B.

4.0 DISCUSSION AND CONCLUSIONS

Surveys were conducted during favorable growing conditions (e.g., average, or above average rainfall season) increasing the probability of detecting sensitive plant species. Blooming conditions were considered excellent based on the number of plant species and individuals observed on the project site and in surrounding areas.

The four sensitive plant species documented in the study area (three based on survey findings and one based on previously recorded occurrence) are not state or federally listed as threatened or endangered. Accordingly, potential impacts should also be considered per the California Environmental Quality Act. Alkali mariposa lily, Mojave monardella and sagebrush loeflingia do not have state or federal protection under the Endangered Species Act, and the potential project impacts would not be considered a significant impact under CEQA. Western Joshua tree is designated as a candidate species under the California Endangered Species Act. As a candidate for listing, the species is afforded the same protections as a state-listed endangered or threatened species until the California Fish and Wildlife Commission can make a final determination of its status.

The California Legislature has enacted the Western Joshua Tree Conservation Act as the CDFW website explains:

> *The Western Joshua Tree Conservation Act (WJTCA) was passed in July 2023 to conserve western Joshua tree and its habitat while supporting the state's renewable energy and housing priorities.*
>
> *The WJTCA creates a streamlined permitting framework for certain development activities and collects mitigation fees for the acquisition and conservation of western Joshua tree habitat and other actions to conserve western Joshua Tree. This will offset the impacts of permitted projects that negatively impact western Joshua trees and help to conserve the species on a landscape scale.*[2]

CDFW has recommended completing a full Western Joshua tree census, which would include additional data collection beyond a sensitive plant survey. WSP has prepared a Joshua Tree Census Report for the WRESC project under a separate cover.

A Worker's Environmental Awareness Program is recommended to be implemented prior to project construction to educate the construction crew on the special status plant species present on the project site. Biological monitoring should be conducted near their populations. If unavoidable, CDFW may be

[2] https://wildlife.ca.gov/Conservation/Environmental-Review/WJT

contacted and allowed to harvest individuals and/or seeds prior to vegetation removal or soils impacts. No other mitigation measures are recommended for sensitive plant species. Additional avoidance, minimization, and mitigation measures for the Western Joshua tree are included in a separate report.

5.0 REFERENCES

Baldwin, B.G., D.H Goldman, D.J. Keil, and R. Patterson 2012. The Jepson Manual: vascular plants of California, second edition. University of California Press, Berkeley, CA.

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. With minor editorial revisions on February 3, 2021. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline.

CDFW. 2024. California Natural Diversity Database (CNDDB) RareFind 5 records of sensitive elements.

California Native Plant Society (CNPS). 2001. CNPS Botanical Survey Guidelines. December 9, 1983, revised June 2, 2001. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf.

CNPS. 2024. Rare Plant Inventory. A Science-Driven Approach. http://www.rareplants.cnps.org.

Cypher, Ellen A. 2002. General Rare Plant Survey Guidelines. California State University, Stanislaus Endangered Species Recovery Program. July 2002.

U.S. Fish and Wildlife Service (USFWS). 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. https://cnps.org/wp-content/uploads/2019/10/Bot-Cert_US-Fish-and-Wildlife-Service-guidelines-botanical-inventories-LR.pdf.

WSP USA Environment and Infrastructure, Inc. (WSP). 2024. Willow Rock Energy Storage Center Project Sensitive Plant Species Survey. Revised January 2024.

6.0 LIMITATIONS

This document has been prepared for the exclusive use of Hydrostor and its Construction Contract(s) in support of the preparation of the California Energy Commission's Application for Certification for the Willow Rock Energy Storage Center Project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report was prepared, based in part, on information obtained from historic information sources. In evaluating the subject site, WSP has relied in good faith on information provided. We accept no responsibility for any deficiency or inaccuracy contained in this report as a result of our reliance on the aforementioned information.

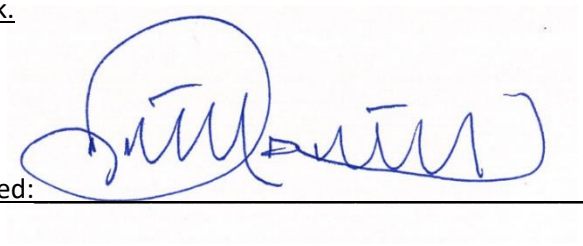
The findings and conclusions documented in this report have been prepared for the specific application to this Project and have been developed in a manner consistent with that level of care normally exercised by environmental professionals currently practicing under similar conditions in the jurisdiction.

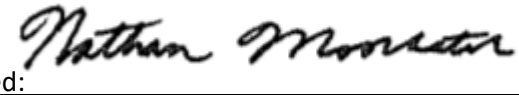
With respect to regulatory compliance issues, regulatory statutes are subject to interpretation. These interpretations may change over time, these should be reviewed.

If new information is discovered during future work, the conclusions of this report should be re-evaluated and the report amended as required, prior to any reliance upon the information presented herein.

7.0 REPORT CERTIFICATION STATEMENT

We certify that the information in the survey report and attached exhibits fully and accurately represents our work.

Signed:  Date: 08/02/2024

Signed:  Date: 08/02/2024

Appendix A Figures

WRESC Site

LEGEND

- Freeway
- Major Road
- Secondary Road
- Local Connecting Road
- Important Local Road

Proposed Transmission Line

- Preferred Route, Aboveground
- Preferred Route, Underground
- Route Options 1-6, Aboveground
- Route Options 1-6, Underground

Project Components

- WRESC Site
- Other Project Parcels
- No Right of Entry Areas
- Project Boundary
- 2024 Project Area
- SCE Whirlwind Substation

KEY MAP

0 5 10

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REFERENCE(S)

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2. MAP SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
GEM A-CAES LLC

CONSULTANT
wsp

YYYY-MM-DD	2024-07-29
DESIGNED	MK
PREPARED	MK
REVIEWED	SC
APPROVED	VG/LL

PROJECT
WILLOW ROCK ENERGY STORAGE CENTER
SENSITIVE PLANTS FOCUSED SURVEY

TITLE
REGIONAL LOCATION MAP

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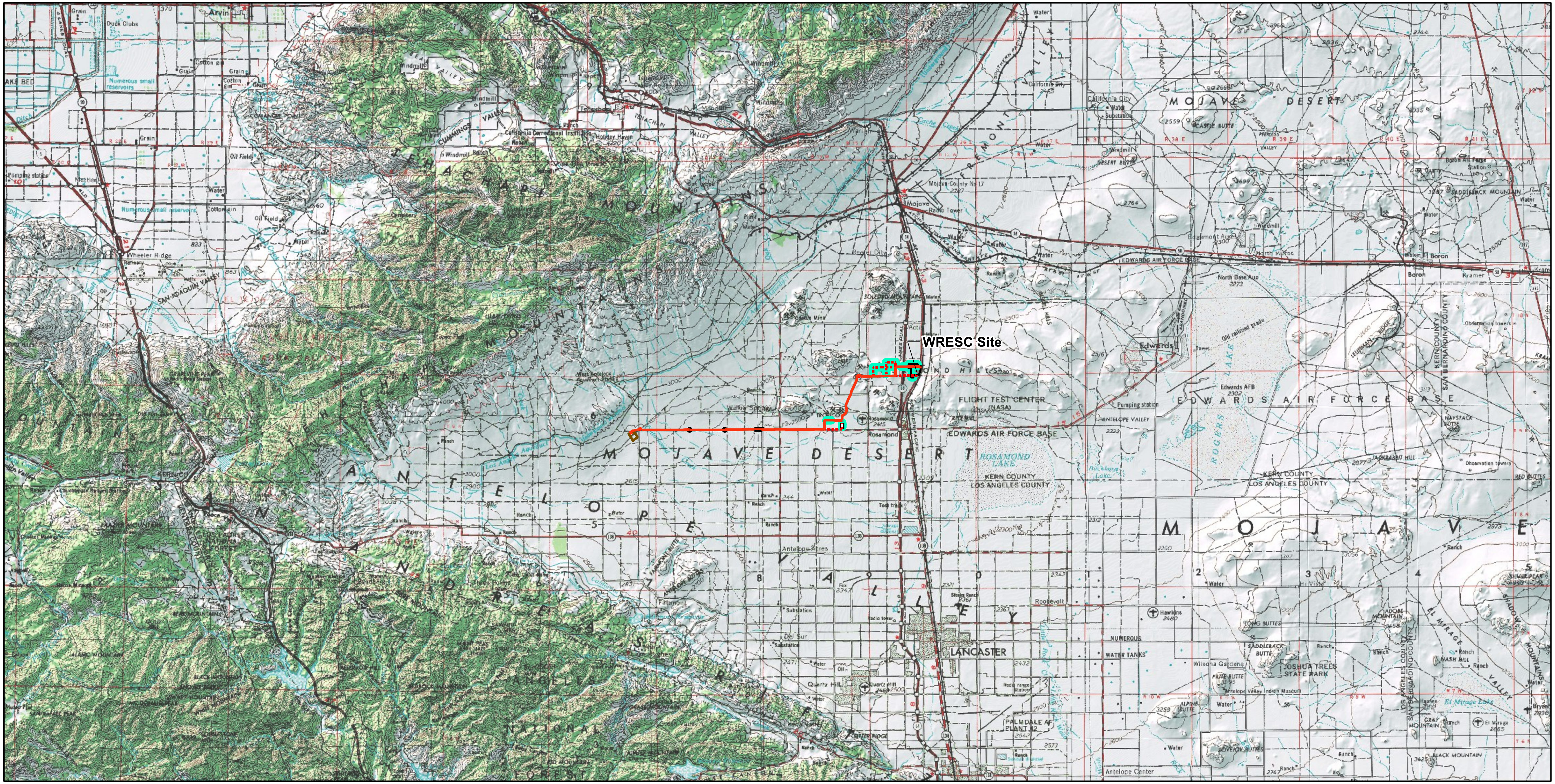
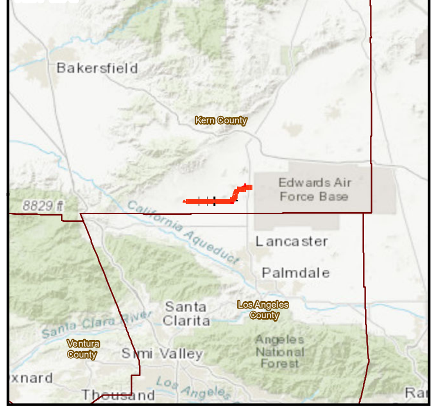


LEGEND

Proposed Transmission Line
- Preferred Route, Aboveground
- Preferred Route, Underground
- Route Options 1-6, Aboveground
- Route Options 1-6, Underground

Project Components
- WRESC Site
- Other Project Parcels
- No Right of Entry Areas
- Project Boundary
- 2024 Project Area
- SCE Whirlwind Substation

KEY MAP



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CLIENT
GEM A-CAES LLC

PROJECT
WILLOW ROCK ENERGY STORAGE CENTER
SENSITIVE PLANTS FOCUSED SURVEY

CONSULTANT

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PREPARED	MK
REVIEWED	SC
APPROVED	VG/LL

TITLE
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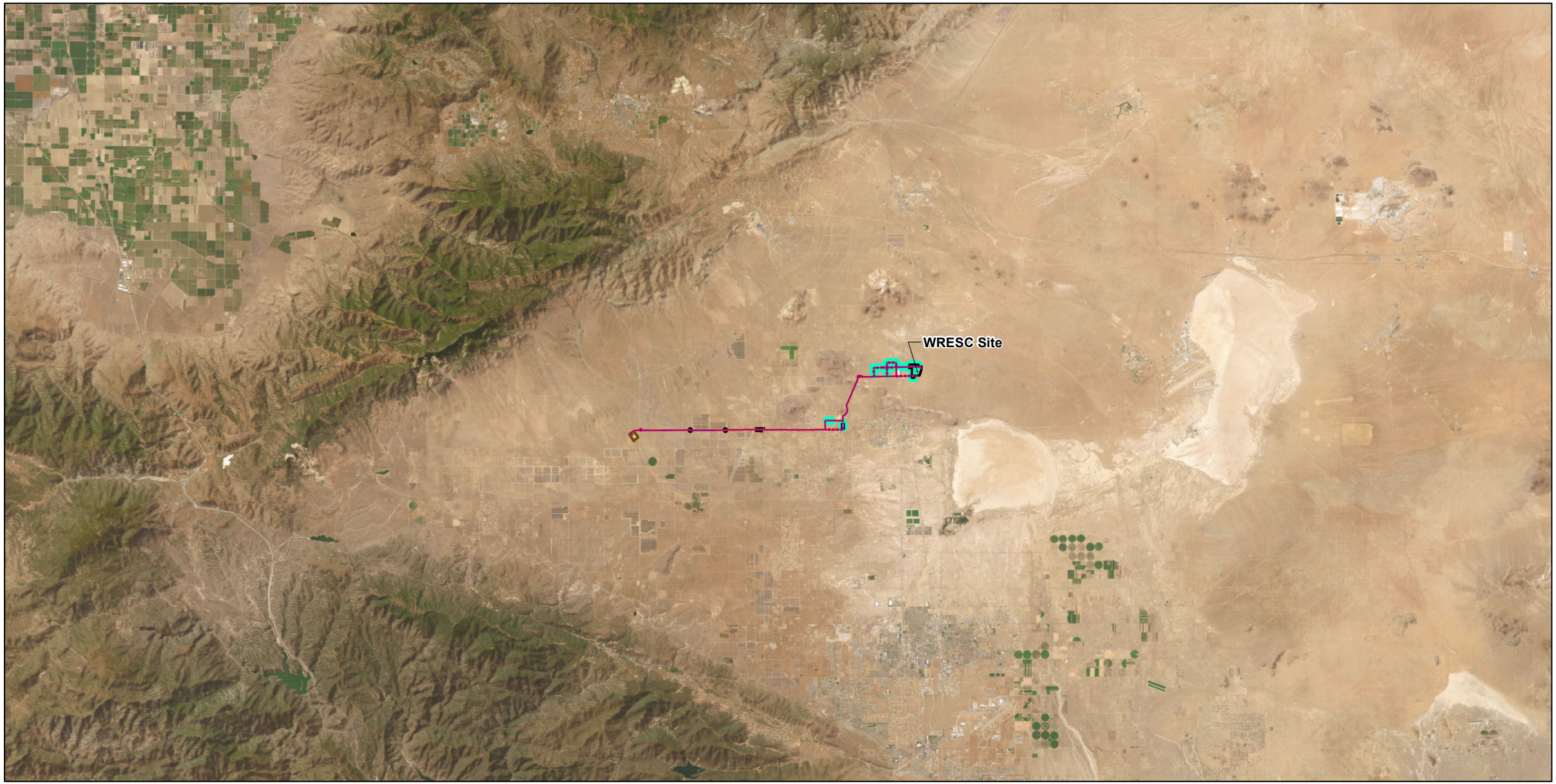
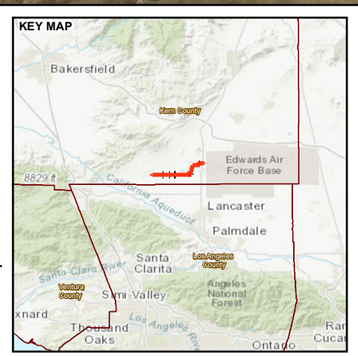


LEGEND

Proposed Transmission Line
- Preferred Route, Aboveground
- Preferred Route, Underground
- Route Options 1-6, Aboveground
- Route Options 1-6, Underground

Project Components
- WRESC Site
- Other Project Parcels
- No Right of Entry Areas
- Project Boundary
- 2024 Project Area
- SCE Whirlwind Substation
- Project ROW

KEY MAP



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NOTE(S)
1. PROJECT ROW IS A 62.5 FT BUFFER ON EITHER SIDE OF THE TRANSMISSION LINE.

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2. MAP SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
GEM A-CAES LLC

CONSULTANT
wsp

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PREPARED	MK
REVIEWED	SC
APPROVED	VG/LL

PROJECT
WILLOW ROCK ENERGY STORAGE CENTER
SENSITIVE PLANTS FOCUSED SURVEY

TITLE
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LEGEND

Plant Common Name

- Alkali Mariposa Lily

Proposed Transmission Line

- Preferred Route, Aboveground
- Preferred Route, Underground
- Route Options 1-6, Aboveground
- Route Options 1-6, Underground

Project Components

- WRESC Site
- Other Project Parcels
- No Right of Entry Areas
- Project Boundary
- 2024 Project Area
- 500 ft Buffer Around Project Parcels and Transmission Lines
- SCE Whirlwind Substation

0 5 10

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REFERENCE(S)

1. CNDDB DATA ACQUIRED IN NOV, 2023 - CALIFORNIA DPT. FISH & GAME
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GEM A-CAES LLC

PROJECT
WILLOW ROCK ENERGY STORAGE CENTER
SENSITIVE PLANTS FOCUSED SURVEY

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PROJECT NO.	PHASE	REV.	FIGURE
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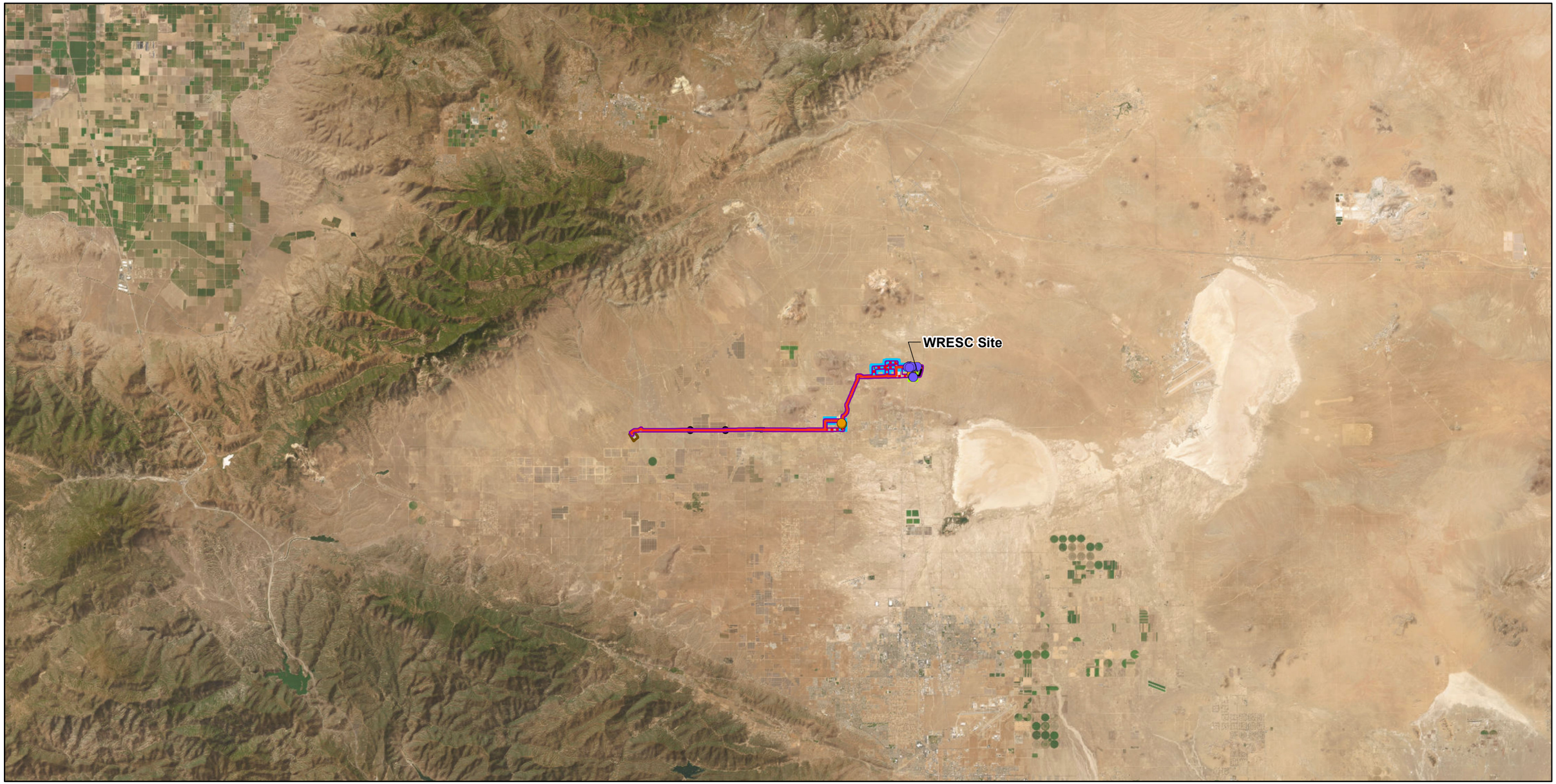
PATH: G:\Hydrostor\Ansel\99_PROJECTS\31406639.000_Hydrostor\Ansel\BioSurvey\01.LBR_Ph1_BioSurvey\02_PRODUCTION\MXD\FIGURES\Sensitive_Plants\Rev1\31406639-000_01_04_F05-04_Rev1_SP_CNDDB.mxd PRINTED ON: 2024-07-30 AT: 3:25:12 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

- Mojave monardella (2024)
- Sagebrush loeflingia (2024)

Proposed Transmission Line

- Preferred Route, Aboveground
- Preferred Route, Underground
- Route Options 1-6, Aboveground
- Route Options 1-6, Underground

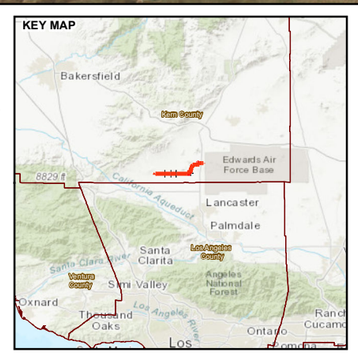
Project Components

- WRESC Site
- Other Project Parcels
- No Right of Entry Areas
- Project Boundary
- SCE Whirlwind Substation
- 500 ft Buffer Around Project Parcels and Transmission Line

2024 Project Areas

- Gen-Tie Transmission Line Variances
- P2 North
- P2 South

KEY MAP



0 5 10

1:350,000 MILES

REFERENCE(S)

1. COORDINATE SYSTEM: NAD 1983 STATEPLANE CALIFORNIA V FIPS 0405 FEET
2. MAP SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY

CLIENT
GEM A-CAES LLC

PROJECT
WILLOW ROCK ENERGY STORAGE CENTER
SENSITIVE PLANTS FOCUSED SURVEY

CONSULTANT
wsp

YYYY-MM-DD	2024-07-30
DESIGNED	MK
PREPARED	MK
REVIEWED	SC
APPROVED	VG/LL

TITLE
SPECIAL STATUS PLANTS

PROJECT NO.	PHASE	REV.	FIGURE
31406639.000	01.LBR	1	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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Appendix B Plant Species Observed

Opuntia	*basilaris* var. *basilaris*	beavertail
Caryophyllaceae		**Pink Family**
Eremogone	*macradenia* var. *macradenia*	desert sandwort
Loeflingia	*squarrosa* var. *squarrosa*	spreading loeflingia
Chenopodiaceae		**Goosefoot Family**
Atriplex	*canescens*	hoary saltbush
Atriplex	*confertifolia*	spiny saltbush
Grayia	*spinosa*	hopsage
Krascheninnikovia	*lanata*	winter fat
Salsola	*tragus*	Russian thistle *
Convolvulaceae		**Morning-Glory Family**
Cuscuta	sp.	Unknown dodder species
Cucurbitaceae		**Gourd Family**
Brandegea	*bigelovii*	brandegea
Marah	*macrocarpa*	chilicothe
Euphorbiaceae		**Spurge Family**
Croton	*setiger*	dove weed
Euphorbia	*albomarginata*	rattlesnake sandmat
Euphorbia	*polycarpa*	smallseed sandmat
Stillingia	*linearifolia*	narrow leaved stillingia
Fabaceae		**Legume Family**
Astragalus	*didymocarpus* var. *didymocarpus*	common dwarf milkvetch
Astragalus	*layneae*	Layne's milkvetch
Astragalus	*lentiginosus*	freckled milkvetch
Melilotus	*albus*	white sweetclover
Geraniaceae		**Geranium Family**
Erodium	*cicutarium*	red stemmed filaree
Hydrophyllaceae		**Water-leaf Family**
Phacelia	*distans*	fern-leaf phacelia
Phacelia	*tanacetifolia*	tansy leafed phacelia
Lamiaceae		**Mint Family**
Monardella	*exilis*	Mojave monardella
Salvia	*carduacea*	thistle sage
Salvia	*columbariae*	chia sage
Loasaceae		**Loasa Family**
Mentzelia	*albicaulis*	white stemmed blazing star
Malvaceae		**Mallow Family**
Eremalche	*exilis*	white mallow
Sphaeralcea	*ambigua*	apricot mallow
Namaceae		**Fiddleleaf Family**
Nama	*demissa*	purplemat
Nyctaginaceae		**Four O'Clock Family**
Abronia	*pogonantha*	Mojave sand verbena
Mirabilis	*laevis*	desert wishbone bush
Onagraceae		**Evening Primrose Family**
Camissonia	*campestris* ssp. *campestris*	field sun cup
Chylismia	*claviformis* ssp. *claviformis*	browneyes
Camissonia	*sp.*	unknown sun cup sp.
Eremothera	*boothii* ssp. *desertorum*	Booth's sun cup
Oenothera	*primiveris*	yellow desert evening-primrose
Orobanchaceae		**Broomrape Family**
Castilleja	*exserta* ssp. *venusta*	purple owl's clover
Papaveraceae		**Poppy Family**
Eschscholzia	*californica*	California poppy
Eschscholzia	*minutiflora*	pygmy poppy

Platystemon	*californicus*	cream cups
Polemoniaceae		**Phlox Family**
Allophyllum	*glutinosum*	sticky false gilia
Eriastrum	*densifolium* ssp. *mohavense*	*perennial woollystar*
Eriastrum	*eremicum*	desert woollystar
Eriastrum	*sapphirinum*	sapphire eriastrum
Gilia	*latiflora*	broad flowered gilia
Linanthus	*parryae*	Parry's linanthus
Loeseliastrum	*matthewsii*	desert calico
Loeseliastrum	*schottii*	Schott gilia
Polygonaceae		**Buckwheat Family**
Centrostegia	*thurberi*	Thurber spiny herb
Chorizanthe	*watsonii*	Watson's spineflower
Eriogonum	*brachyanthum*	yellow buckwheat
Eriogonum	*fasciculatum*	California buckwheat
Eriogonum	*gracilimum*	rose and white buckwheat
Eriogonum	*maculatum*	spotted buckwheat
Eriogonum	*mohavense*	western Mojave buckwheat
Eriogonum	*nidularium*	whisk broom
Eriogonum	*plumatella*	flat-topped buckwheat
Eriogonum	*pusillum*	yellow turban
Eriogonum	*trichopes*	little desert trumpet
Eriogonum	*viridescens*	bright green buckwheat
Mucronea	*perfoliata*	perfoliate spineflower
Rumex	*crispus*	curly dock
Solanaceae		**Nightshade Family**
Datura	*wrightii*	Jimson weed
Lycium	*andersonii*	Anderson thornbush
Lycium	*cooperi*	Cooper's boxthorn
Zygophyllaceae		**Caltrop Family**
Larrea	*tridentata*	creosote bush

MONOCOTS		
Agavaceae		**Agave Family**
Yucca	*brevifolia*	Joshua tree
Alliaceae		**Onion Family**
Allium	*fimbriatum*	fringed onion
Liliaceae		**Lily Family**
Calochortus	*striatus*	alkali mariposa lily
Poaceae		**Grass Family**
Aristida	*adscensionis*	three-awn
Bromus	*diandrus*	ripgut brome*
Bromus	*madritensis*	foxtail brome*
Bromus	*tectorum*	downy chess*
Dasyochloa	*pulchella*	low woollygrass
Elymus	*elymoides*	squirrel tail grass
Hilaria	*rigida*	big galleta
Hordeum	*murinum*	foxtail barley
Schismus	*barbatus*	Mediterranean grass
Stipa	*hymenoides*	Indian rice grass
Stipa	*speciosa*	desert needle grass

Themidaceae		**Brodiaea Family**
Dipterostemon	*capitatus*	blue dicks