DOCKETED	
Docket Number:	25-OPT-02
Project Title:	Prairie Song Reliability Project
TN #:	268041
Document Title:	Data Request Response 3_Part 2
Description:	N/A
Filer:	Erin Phillips
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	12/24/2025 1:08:04 PM
Docketed Date:	12/24/2025

SOURCE: Maxar 2024; Los Angeles County 2025

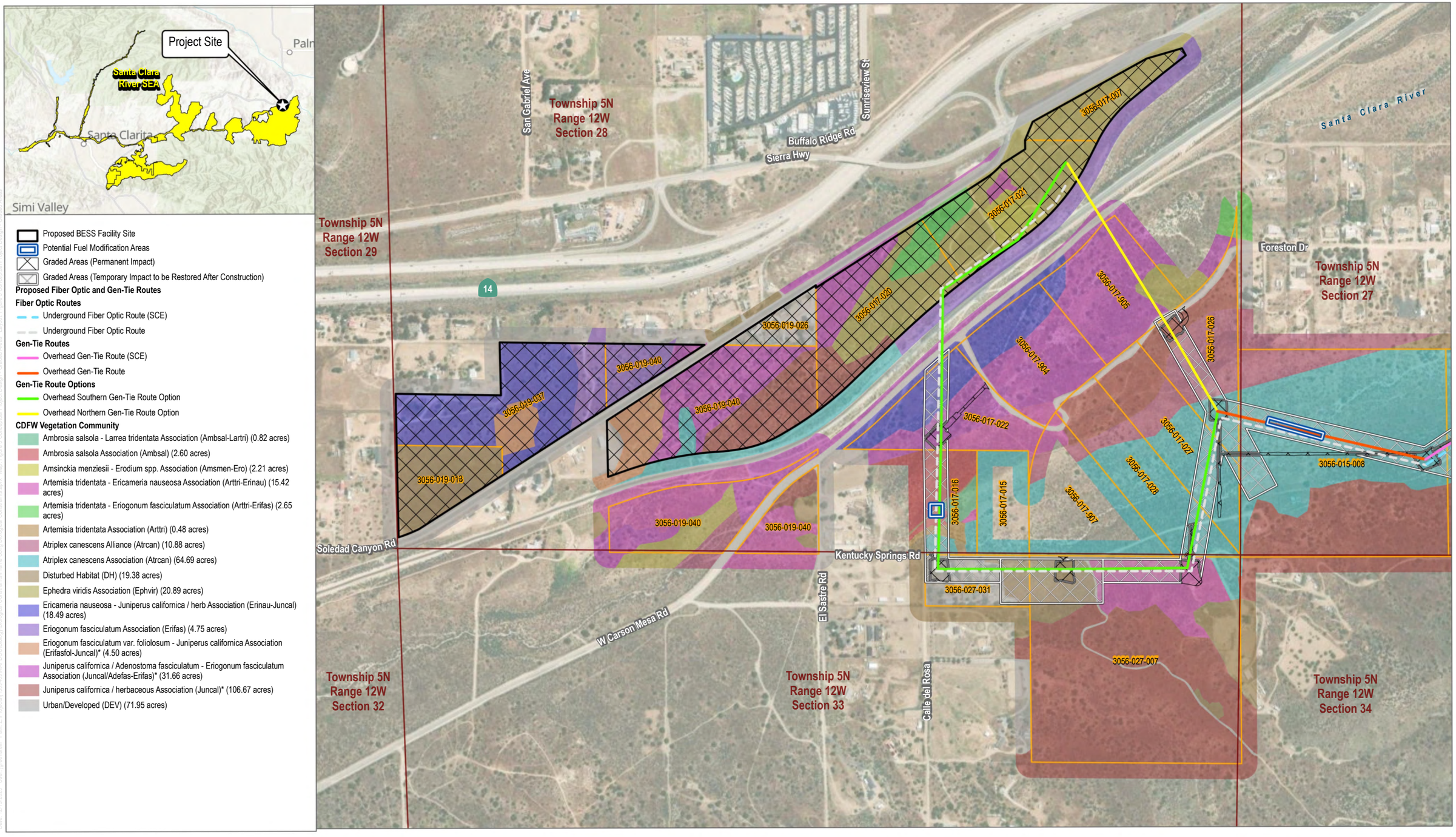
DUDEK

0 300 600 Feet

FIGURE 2B

Conceptual Project Design - Project Components

Prairie Song Reliability Project



- Proposed BESS Facility Site
- Potential Fuel Modification Areas
- Graded Areas (Permanent Impact)
- Graded Areas (Temporary Impact to be Restored After Construction)

Proposed Fiber Optic and Gen-Tie Routes

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

CDFW Vegetation Community

- Ambrosia salsola - Larrea tridentata Association (Ambsal-Lartri) (0.82 acres)
- Ambrosia salsola Association (Ambsal) (2.60 acres)
- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata Association (Arttri) (0.48 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa - Juniperus californica / herb Association (Erinau-Juncal) (18.49 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

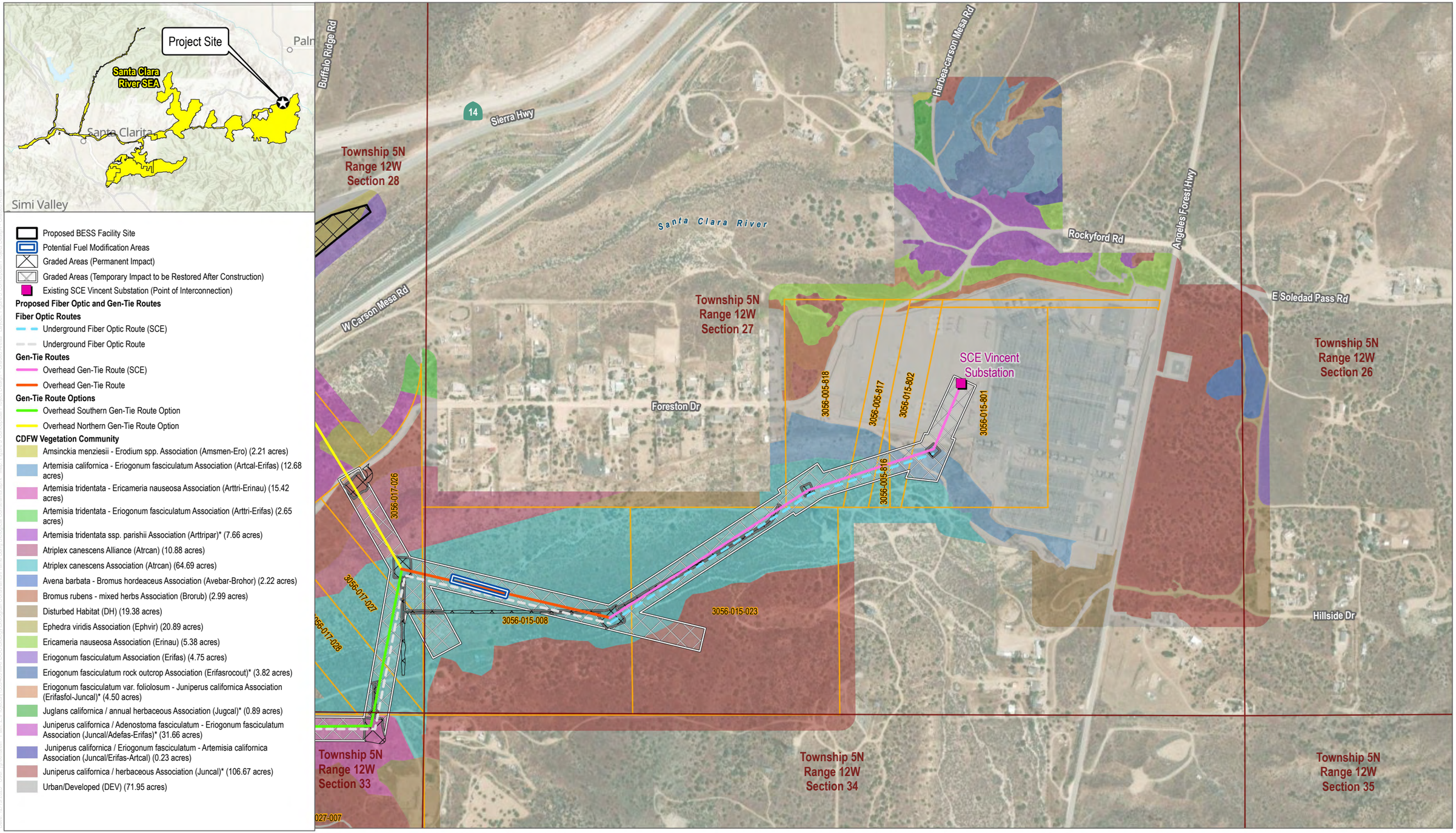
DUDEK

0 300 600 Feet

FIGURE 3A

Conceptual Project Design - Graded Areas

Prairie Song Reliability Project



- Proposed BESS Facility Site
- Potential Fuel Modification Areas
- Graded Areas (Permanent Impact)
- Graded Areas (Temporary Impact to be Restored After Construction)
- Existing SCE Vincent Substation (Point of Interconnection)

Proposed Fiber Optic and Gen-Tie Routes

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

CDFW Vegetation Community

- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia californica - Eriogonum fasciculatum Association (Artcal-Erifas) (12.68 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata ssp. parishii Association (Arttripar)* (7.66 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Avena barbata - Bromus hordeaceus Association (Avebar-Brohor) (2.22 acres)
- Bromus rubens - mixed herbs Association (Brorub) (2.99 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa Association (Erinau) (5.38 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum rock outcrop Association (Erifasrocout)* (3.82 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juglans californica / annual herbaceous Association (Jugcal)* (0.89 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / Eriogonum fasciculatum - Artemisia californica Association (Juncal/Erifas-Artcal) (0.23 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 300 600 Feet

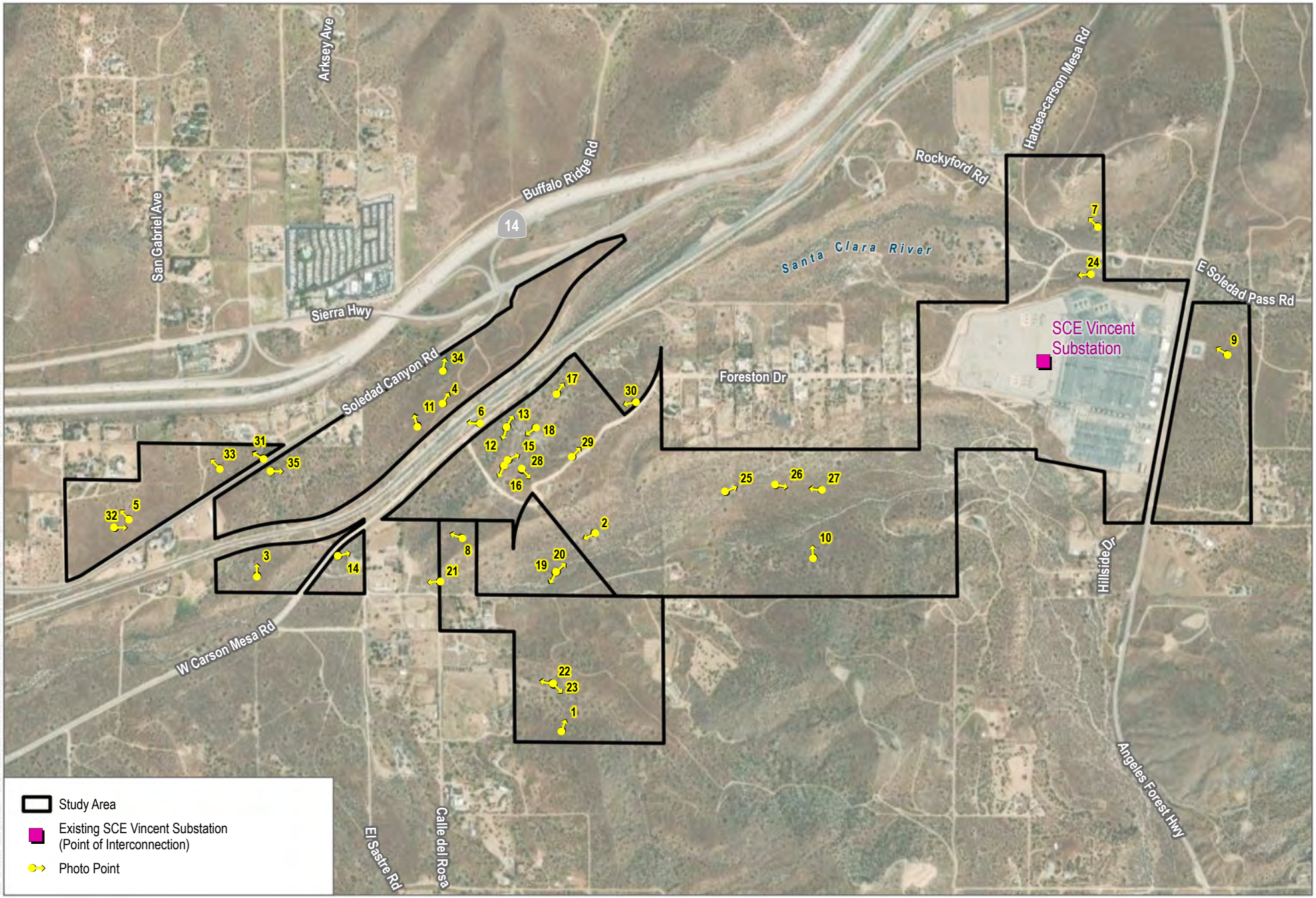
FIGURE 3B

Conceptual Project Design - Graded Areas

Prairie Song Reliability Project

Appendix 3.2I

Photo Exhibit with Key Map – Clean



SOURCE: World Imagery

DUDEK

0 500 1,000 Feet

Photo Points

Prairie Song Reliability Project

Photo 1. Photo displays California juniper woodland. This vegetation community is present throughout the gen-tie route vicinity. Photo taken from southern slopes, facing north. November 18, 2024.

Photo 2. Photo displays fourwing saltbush scrub, the second most abundant vegetation community on the site. Photo taken from center of site, in valley south of Foreston Drive, facing west by southwest. January 11, 2023.

Photo 3. Photo displays big sagebrush vegetation community south of railroad tracks in western portion of study area. Facing northwest. January 6, 2023.

Photo 4. Photo displays disturbed Mormon tea scrub vegetation community, within the northern portion of the study area. Facing northeast. January 6, 2023.

Photo 5. Photo displays disturbed habitat in far western project area, facing southwest. January 6, 2023.

Photo 6. Photo displays California buckwheat vegetation community, present on the southern slope of the railroad berm. Facing west. June 12, 2024.

Photo 7. Photo shows California sagebrush community on the slopes north of the SCE substation, in the northern portion of the study area. Facing west by northwest. November 19, 2024.

Photo 8. Photo shows cheesebush scrub community on slopes south of Foreston Drive. Facing west. November 18, 2024.

Photo 9. Photo shows Wild oats and annual brome grasslands vegetation community east of the Vincent Substation. Facing west. January 12, 2023.

Photo 10. Photo shows short-joint beavertail cactus (*Opuntia basilaris* var. *brachyclada*) individual in southern portion of study area. May 2, 2023.

Photo 11. NWW-1b at OHWM form point, looking upstream. January 6, 2023.

Photo 12. NWW-2 at OHWM form point, looking downstream. January 11, 2023.

Photo 13. NWW-2 at OHWM form point, looking upstream. January 11, 2023.

Photo 14. NWW-2 near Carson Mesa Road. January 6, 2023.

Photo 15. NWW-3 at OHWM form point, looking upstream.

Photo 16. NWW-3 at OHWM form point, looking downstream.

Photo 17. NWW-4 at OHWM form point, looking upstream.

Photo 18. NWW-4 at its downstream terminus.

Photo 19. NWW-5 at OHWM form point, looking downstream.

Photo 20. NWW-5 at OHWM form point, looking upstream.

Photo 21. NWW-5 near its terminus at equestrian property.

Photo 22. NWW-6 at OHWM form point, looking downstream.

Photo 23. NWW-6 at OHWM form point, looking upstream.

Photo 24. NWW-7 at OHWM form point, looking downstream.

Photo 25. Representative photo of Swale-3.

Photo 26. Representative photo of Swale-5.

Photo 27. Representative photo of Swale-6.

Photo 28. Representative photo of Erosional Feature-1.

Photo 29. Representative photo of Erosional Feature-2.

Photo 30. Representative photo of Erosional Feature-3.

Photo 31. Photo shows juniper vegetation community south of Soledad Canyon Road. Facing northwest. August 22, 2025.

Photo 32. Photo of disturbed habitat north of Soledad Canyon Road. Facing east. August 26, 2025.

Photo 33. Photo of mixed juniper, buckwheat, chaparral yucca, cholla, saltbush, ephedra, and amsinckia north of Soledad Canyon Road. Facing northeast.

Photo 34. Photo of *Artemisia tridentata* and *Eriogonum fasciculatum* vegetation association south of Soledad Canyon Road. Facing north. May 21, 2025.

Photo 35. Photo shows juniper vegetation community south of Soledad Canyon Road. Facing east.

Appendix 3.2K

Completed 1602 Lake and Streambed Alteration Agreement Application Package – Clean

DUDEK
225 SOUTH LAKE AVENUE
SUITE M210
PASADENA, CALIFORNIA 91101
T 626.204.9800

December 22, 2025 13594

California Department of Fish and Wildlife
Region 5- Lake and Streambed Alteration Program
3883 Ruffin Road
San Diego, CA 92123

Subject: Application for a Streambed Alteration Agreement for the Prairie Song Reliability Project, Los Angeles County, California

Region 5- Lake and Streambed Alteration Program:

On behalf of Prairie Song Reliability Project, LLC (Applicant), Dudek submits the enclosed application for a Streambed Alteration Agreement for the Prairie Song Reliability Project (project) located in the Los Angeles County, California.

List of Attachments

The following attachments are provided in this application:

- Attachment A: Application Form
- Attachment B: Figures
- Attachment C: Project Description (Overall)
  - Attachment C.1: Targeted Project Description for the Streambed Alteration Application Package
- Attachment D: Aquatic Resources Delineation Report
- Attachment E: Copy of Application for a Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements

Please let me know if you have any comments or questions at mcady@dudek.com or 626 204 9841.

Sincerely,

Michael Cady
Senior Biologist

Attachment A

Application Form

Attribute	Answer
General Information	
Applicant	Garrett Lehman, Director
Additional Contacts	n/a
Project Name	Prairie Song Reliability Project
Organization	Prairie Song Reliability Project LLC
Designated Representative	Michael Cady - Dudek
Project Location and Category	
Project Location	
Project Name	Prairie Song Reliability Project
Does the project site have a physical address? (select one)	☐ Yes | ☒ No
GPS Coordinates	34.485487°, -118.138757° - BESS portion of the Project
County	Los Angeles
Property APN	3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, 3056-019-040, 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, 3056-015-802, 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, 3056-015-802 See Attachment B for figures showing the Project location.
Project Category	
Project Category (select one)	☒ New Construction | ☐ Replace/Remove Existing Structure | ☐ Repair/Maintain/Operate Existing Structure
Work Type (select one)	☐ Bank stabilization – bioengineering/recontouring | ☐ Bank stabilization – rip-rap/retaining wall/gabion | ☐ Boat dock/pier | ☐ Boat ramp | ☐ Bridge | ☐ Channel clearing/vegetation management | ☐ Culvert | ☐ Dam | ☐ Debris basin | ☐ Diversion structure: weir or pump intake (obsolete) | ☒ Filling of wetland, river, stream, or lake | ☐ Geotechnical survey | ☒ Grading | ☐ Habitat enhancement – revegetation/mitigation | ☐ Levee | ☐ Low water crossing | ☒ Road/trail | ☐ Sand & gravel operations | ☐ Sediment removal – pond, stream, or marina | ☐ Sediment removal: flood control | ☐ Storm drain outfall structure | ☒ Temporary stream crossing | ☐ Utility crossing: horizontal directional drilling | ☐ Utility crossing: jack/bore | ☐ Utility crossing: open trench | ☐ Water diversion with facility | ☐ Water diversion without facility | ☐ Other (Describe other work type)
Does this project address any of the following: hazardous fuels reduction, fuel breaks, wildfire	☐ Yes | ☒ No

Attribute	Answer
prevention, vegetation treatment or vegetation management for fire management? (select one)	
Affected Body of Water	
River, Stream, or Lake Affected	Unnamed tributaries and isolated streams
Waterbody tributary	Santa Clara River
Will water be present during the proposed work period in the river, stream, or lake: (select one)	☐ Yes | ☒ No
If "Yes", will the proposed project require work in the wetted portion of the channel?	☐ Yes | ☒ No If “Yes”, attach a plan to divert water around the project site and dewater the work site that specifies the method, volume rate, and timing of the diversion on the Documents and Maps form.
Wild and Scenic Rivers Act (WSRA)	
Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes | ☒ No | ☐ Unknown
Project Description, Term, and Impacts	
Project Description and Details	
Is the 'Property Owner' the same person as the 'Applicant Proposing Project?	☒ Yes | ☐ No
If “No”, outline the following contact information for the ‘Property Owner’: Name Business Agency Mailing Address Phone Number Email	N/A
Describe the Project in Detail	The project proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Prairie Song Reliability Project (Project) located on up to approximately 107 acres in unincorporated Los Angeles

Attribute	Answer
	County. The primary components of the Project include a containerized battery energy storage system facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead generation interconnection transmission line, and interconnection facilities within the existing Southern California Edison-owned and operated Vincent Substation. See Attachment C, Project Description, for full project objectives. A project description specific to the portions of the overall project that intersect with streams or associated riparian areas is included as Attachment C.1.
Describe Equipment and Machinery	Tractors, loaders, backhoes, excavator, rubber-tired dozer, rollers, air compressors, cranes, forklift, bore/drill rigs, trenchers, pumps, welders, rough terrain forklifts, skid steer loaders, concrete/industrial saws
Will part or all of this project be funded with one of the following CDFW-managed grants? (select one)	☐ Fish Restoration Grant Program (FRGP) | ☐ Cannabis Restoration Grant Program | ☐ Prop 1 Grant | ☐ Prop 68 Grant | ☐ Greenhouse Gas Grant (GHG) | ☐ Wildlife Conservation Board (WCB) Grant | ☒ N/A
Water Rights(s), Water Diversion(s) & Reservoir(s)	
Does the project have an associated water right(s)? (select one) ▪ If "Yes", how many project water rights are included in the project?	☐ Yes | ☒ No
Does the project include any water diversion(s)? (select one) ▪ If "Yes", how many water diversions will be included in the project?	☐ Yes | ☒ No
Does the project include a reservoir(s)? (select one) ▪ If "Yes", how many reservoir(s) will be included in the project?	☐ Yes | ☒ No
Commercial Cannabis Cultivation	
Does any part of the project include remediation at a cannabis cultivation site? (select one)	☐ Yes | ☒ No

Attribute	Answer
Are you seeking documentation to submit to the Department of Cannabis Control (DCC) for the purpose of commercial cannabis cultivation licensing? (select one)	☐ Yes | ☒ No
Agreement Term	
Agreement Term Requested	☒ Regular Term (5 years or less) | ☐ Long Term (Greater than 5 years)
Project Term	
Specify both the year the project activities will begin and the year the project activities will end. Be advised CDFW may restrict work within a stream or lake to the dry season of the year. Consequently, you may want to include more than one season of possible operation in your project proposal.	Beginning Year: 2027 Ending Year: 2069
Seasonal Work Period	
Specify the time period you intend to work on the project (e.g., August 1 to October 15). If the work period will exceed one year, specify the work period for each year of the project (e.g., Work Period 1, February 10 to March 31; Work Period 2, August 1 to October 15; Work Period 3, February 10 to March 31; etc.). CDFW may restrict project work to certain periods depending on rainfall, fish migration, wildlife breeding or nesting season, or other resource concerns. Specify the estimated number of days of	Construction Start Date: 3/2027 Construction End Date: 4/2029

Attribute	Answer
actual work days for each seasonal work period.	
Impacts to River, Stream, or Lake	
Describe Impacts	0.33-acre of NWW-1a, NWW-1b, NWW-1c, NWW-1d, NWW-5, and NWW-9 would be permanently filled in during grading to create a level area for the construction of the battery energy storage system and substation portions of the Project and access roads for the gen-tie portion. 0.33-acre of NWW-2, NWW-5, Swale-1, and Swale-3 could be temporarily impacted during the construction of the gen-tie (due to potential pull areas) and the trenching of the underground optical ground wire use for telecommunication by the project. See Attachment B Figure 3 for Project impacts on jurisdictional waters. A detailed Figure 3 mapbook is also provided.
Impacts to Special-Status Species	
Will there be any foreseeable impacts to any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site? (select one)	☐ Yes | ☒ No
If “Yes”, list each species and describe the habitat	
Source(s) Identify the source(s) of information (e.g., biological surveys, environmental documents, etc.) that support a “Yes” or “No” answer for the previous question.	The Biological Resources section of the Project’s CEC "Opt-In" application contains the results of the biological studies conducted for the Project.
Impacts to Trees and Vegetation	
Will the project affect any trees or vegetation?	☒ Yes | ☐ No
Describe	*Atriplex canescens* Association and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association, *Ephedra viridis* Association, *Juniperus californica / Adenostoma fasciculatum - Eriogonum*

Attribute	Answer
Identify the type(s) of tree(s) or vegetation that will be affected by the project.	*fasciculatum* Association, *Juniperus californica* / herbaceous Association, Artemisia *tridentata* - *Ericameria* nauseosa Association, *Artemisia tridentata* Association, *Atriplex canescens* Association
Environmental Review	
California Environmental Quality Act	
Has a CEQA lead agency been determined? (select one)	☒ Yes | ☐ No
CEQA Lead Agency	California Energy Commission (CEC)
Agency Contact Person	Lisa Worrall
Phone Number	916-661-8367
Email	Stepsiting@energy.ca.gov
Has a draft or final document been prepared for the project pursuant to CEQA? (select one)	☒ Yes | ☐ No The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).
If "Yes", outline the type of environmental document. Include a copy of the CEQA document and all notices in the Documents and Map section.	☐ Notice of Exemption (NOE) | ☐ Negative Declaration (ND) | ☐ Mitigated Negative Declaration (MND) | ☒ Environmental Impact Report (EIR) | ☐ Timber Harvest Plan (THP)/Non-Industrial Timber Management Plan (NTMP)
State Clearinghouse Number (if applicable)	The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).
Has a CEQA Notice of Determination (NOD) been completed for the project? (select one) If "Yes", attach the NOD in the Documents and Map section. If "No", explain why the NOD has not been completed.	☐ Yes | ☒ No The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).
Has a CEQA Mitigation, Monitoring, Reporting Plan (MMRP) been completed for the project? (select one)	☐ Yes | ☒ No The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).

Attribute	Answer
If “Yes”, attach the MMRP in the Documents and Map section. If “No”, explain why the MMRP has not been completed.	
Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4? (select one) If “Yes”, attach a copy of the CEQA filing fee receipt in the Documents and Map section. If “No”, explain why the CEQA filing fee hasn’t been paid.	☐ Yes | ☒ No The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).
If the project described in this notification is not the “whole project", or action pursuant to CEQA, briefly describe the entire project. If the project described in the notification is the entire project, insert the following statement in this box: “The project described in the notification is the entire project.”	The project described in the notification is the entire project.
National Environmental Policy Act (NEPA)	
Has a draft or final document been prepared for the project pursuant to the National Environmental Policy Act (NEPA)? (select one)	☐ Yes | ☒ No
If “Yes”, outline the type of environmental document. Include a copy of the document in the Documents and Map section.	☐ Categorical Exclusion | ☐ Environmental Assessment (EA) | ☐ Finding of No Significant Impact (FONSI) | ☐ Environmental Impact Statement (EIS)
Measures to Protect Fish, Wildlife, and Plant Resources	
Sediment/Erosion Control	The Project’s grading plans will include details on the location and type of BMPs necessary to reduce the potential for Project-induced erosion and scour, including temporary BMPs to be implemented during construction (per the

Attribute	Answer
	statewide Construction General Permit), and permanent BMPs to be installed and maintained (per the County BMP Design Manual). The exact location and type of temporary BMPs to be installed during construction depend on site-specific conditions, construction schedule, and proposed activities, all of which are outlined in the construction SWPPP that will be prepared for the Project. Typical temporary BMPs used for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sand bags, construction road stabilization, and stabilized construction entrances. As the Project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP ensure that site-specific conditions are taken into consideration when developing construction SWPPPs, that personnel developing and implementing construction SWPPPs are qualified, and that BMPs are adequately monitored and maintained.
Avoidance/Minimization Measures	During Construction: Potential temporary indirect impacts to the drainages in the project site and downstream waters could result from construction activities and will include potential impacts from the generation of fugitive dust and the potential introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration and transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/ jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats. However, during construction, erosion-control measures will be implemented as part of the storm water pollution prevention plan (SWPPP) for the Project. Because the entirety of the Project development footprint will be graded at one time but construction will occur over time in phases, the erosion measures will be maintained until all graded areas are constructed/landscaped. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate the implementation of best management practices to reduce or eliminate construction-related pollutants in the runoff, including sediment, for all exposed soils. During Operation: Once constructed, the proposed BESS facility will result in a substantial increase in impervious surfaces at the site, currently entirely pervious, which could potentially result in discharge of polluted stormwater runoff. Potential sources of polluted runoff include incidental spills of petroleum products and hazardous substances from maintenance vehicles and equipment. The proposed substation and BESS will be constructed on a raised pad and runoff from this area will drain southwest into catch basins located across the site. A storm sewer network will route water from the catch basins into underground infiltration chambers and infiltration trenches. Infiltration trenches along the southern end of each drainage area connected to the chamber system will aid in meeting the infiltration volume requirement. The infiltration facilities will be sized to store and infiltrate the difference in runoff between existing and proposed conditions up to the 50-year 24-hour storm event for the two

Attribute	Answer
	(2) drainage areas on site. Project engineers have evaluated that the Project stormwater system can carry the 100-year storm flow and debris for the 100-year storm flow. Each gen-tie pad will manage stormwater runoff using shallow infiltration basins. Roads will be designed to be at or near grade. Based on the proposed design, no upstream ponding is expected from road construction or operations.
Mitigation/Compensation Measures	**Temporary Impact Restoration:** The temporary impacts to streams would be restored. Prior to ground disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area, and short-joint beavertail transplant location, and will outline detailed performance standards and monitoring requirements for each; following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the CEC prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 26 acres within the Conservation Area that includes 0.33 acres of ephemeral streams. Up to 166 California juniper will be planted. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to: ▪ Identification of proposed plant materials ▪ Signage in the habitat restoration area ▪ Schedule for habitat restoration/enhancement work ▪ Use of pesticides and elimination of non-native vegetation ▪ Habitat monitoring and reporting ▪ Performance standards **Preservation of Streams:** Mitigation for the Project requires the establishment of a conservation area that will preserve up to approximately 2.3 acres of unimpacted streams in the parcels associated with the gen-tie routes. **No Net Loss:** Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the CEC) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

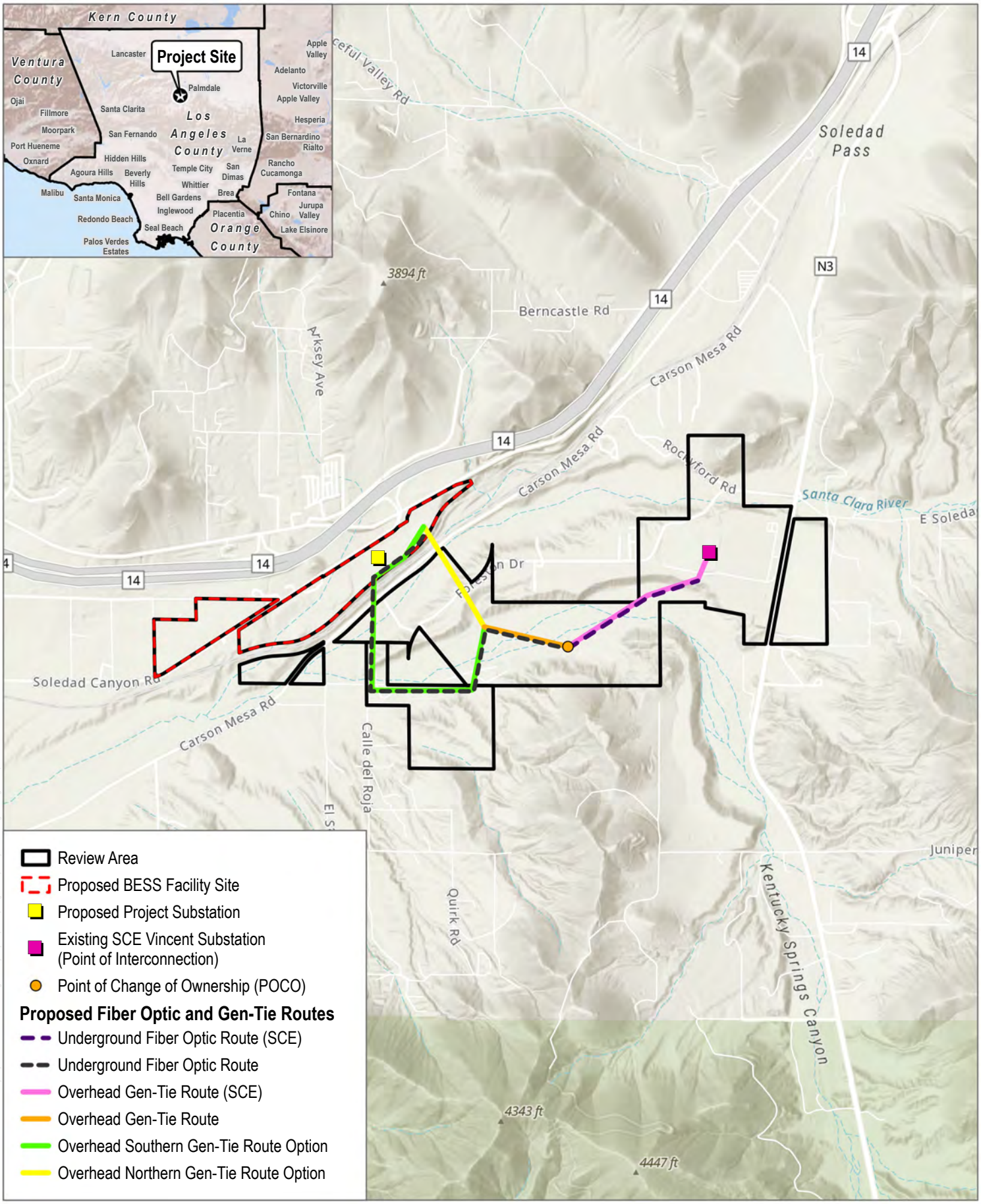
Attribute	Answer
Prior Notifications, Orders, and Permits	
Prior Notifications and/or Agreements	
Identify any notification previously submitted to, or Lake or Streambed Alteration Agreement previously issued by, CDFW for the project described in this notification. Include a copy of the previously submitted notification and/or agreement in the Documents and Maps form. If applicable, list the following: Name of Applicant: Notification Number: Date:	Not Applicable
Prior Orders, Notice, and/or Violations	
If this notification is being submitted in response to a court or administrative order or notice, or a notice of violation issued by CDFW, complete this section for each order, notice, or violation. Include a copy of each order, notice, or violation in the Document and Maps form. If applicable, list the following: Person who Directed you to Submit: Agency that Directed you to Submit: Describe Circumstances:	Not Applicable
Local, State, and/or Federal Permits	
List any local, state, and/or federal permits required for the project and	Regional Water Quality Control Board Water Quality Certification / Waste Discharge Requirements

Attribute	Answer
mark whether applied or issued. Include a copy of each permit that has been issued in the Documents and Maps form. You are responsible for obtaining all necessary permits and authorizations from CDFW and other agencies before beginning any project described in the notification. If applicable, list the following: Permit Name: Permit Type: If the permit was applied for or issued: Date issued/applied:	
Documents and Maps	
Maps/Photos	
Project Site Map	See Attachment B, Figure 1
Project Aerial View Map	See Attachment B, Figure 3
Project Site Photo(s)	See Attachment D, Appendix C
Studies and Mapping	
Has a biological study been completed for the project site? (select one) If “Yes”, include a copy of the document in the Documents and Map section.	☒ Yes | ☐ No The Biological Resources section of the Project’s CEC "Opt-In" application contains the results of the biological studies conducted for the Project.
Has one or more technical studies (e.g., engineering, hydrologic, geologic, or geomorphological) been completed for the project for project site? (select one) If “Yes”, include a copy of the documents in the Documents and Map section.	☒ Yes | ☐ No The appendices of the Project’s CEC "Opt-In" application contains the engineering, hydrologic, geologic, or geomorphological studies for the Project.

Attribute	Answer
Have fish or wildlife resources or waters of the state been mapped or delineated on the project site? (select one) If "Yes", include a copy of the document in the Documents and Map section.	☒ Yes | ☐ No See Attachment D
Additional Documents and Maps	
Upload Attachments, Documents, Maps, etc.	See Attachments B through D
Fees Schedule	
Notification Fees	
Project Name	Prairie Song Reliability Project
Project Cost Range	Regular Term: ☐ < $5,000 | ☐ $5,000 to less than $10,000 | ☐ $10,000 to less than $25,000 | ☐ $25,000 to less than $100,000 | ☐ $100,000 to less than $200,000 | ☐ $200,000 to less than $350,000 | ☒ $350,000 or more
	Long Term: ☐ Base Fee | ☐ < $5,000 | ☐ $5,000 to less than $10,000 | ☐ $10,000 to less than $25,000 | ☐ $25,000 to less than $100,000 | ☐ $100,000 to less than $200,000 | ☐ $200,000 to less than $350,000 | ☐ $350,000 to less than $500,000 | ☐ $500,000 or more
Actual Project Cost	TBD
Payment Information	
Payment Method	☐ Check/Money Order | ☐ Credit Card If check/money order, outline the following information: Name of the Bank/Institution: Check/Money Order #: If credit card, CDFW's online internet sales system will provide a document number after completing the transaction. Outline the document number:
Acknowledgment and Signature	
Site Inspection	
First Contact this Person to Schedule Site Visit	Garrett Lehman, Director

Attribute	Answer
Outline method of contact, contact name and information	
Electronic Signature	
Application to be electronically signed by the Applicant or Designated Representative.	

Attachment B
Figures



SOURCE: World Topographic

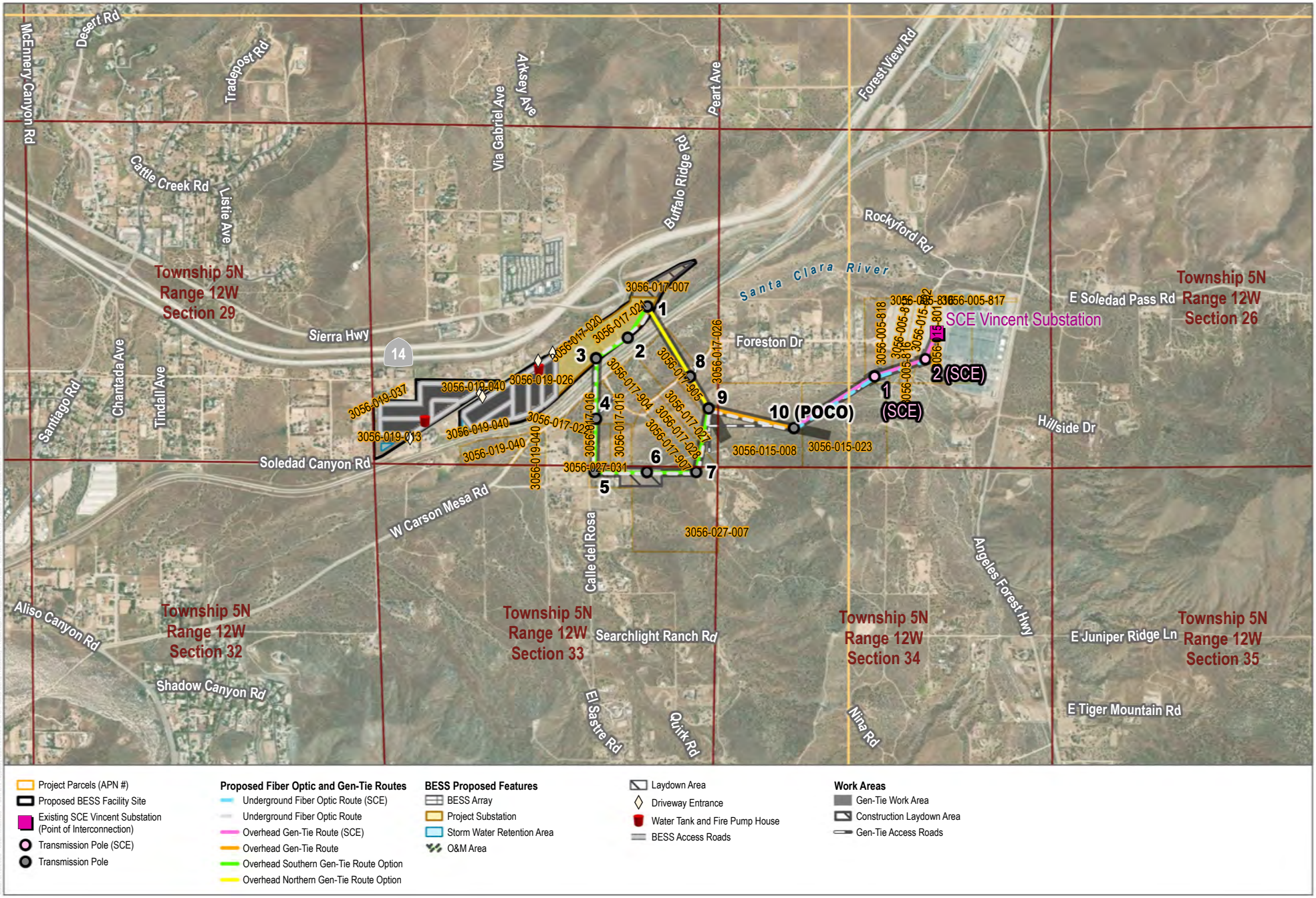
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Map

Prairie Song Reliability Project - Aquatic Resources Delineation Report



SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

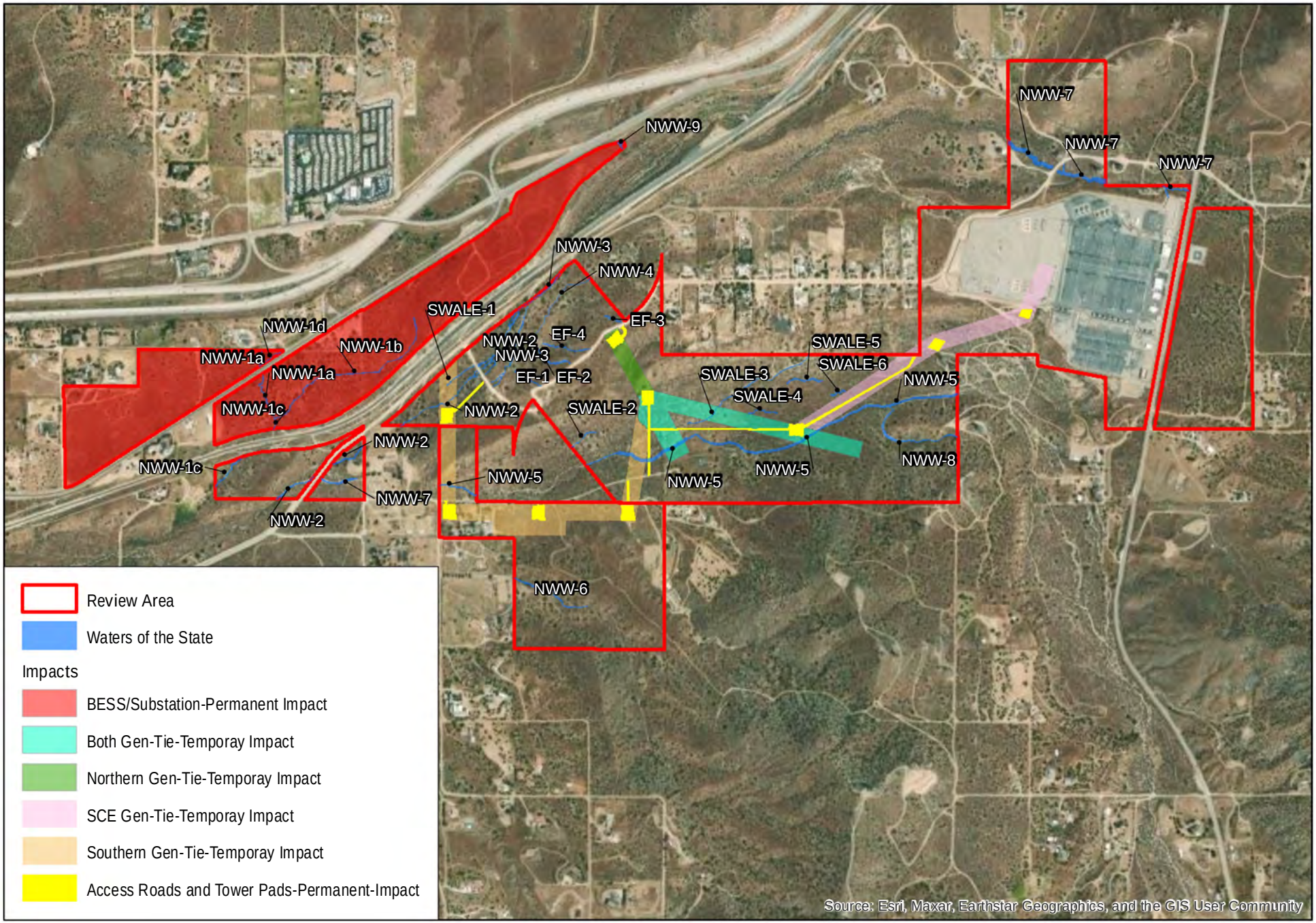
DUDEK

0 500 1,000 Feet

FIGURE 2

Project Site Plan

Prairie Song Reliability Project



SOURCE: Alliance 2025

0 550 1,100 Feet

DUDEK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area
Impacts to Delineated Resources
Jurisdictional Delineation

Impact Component

BESS Site

NWW-1a - Permanent Impact, BESS Site (0.091 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

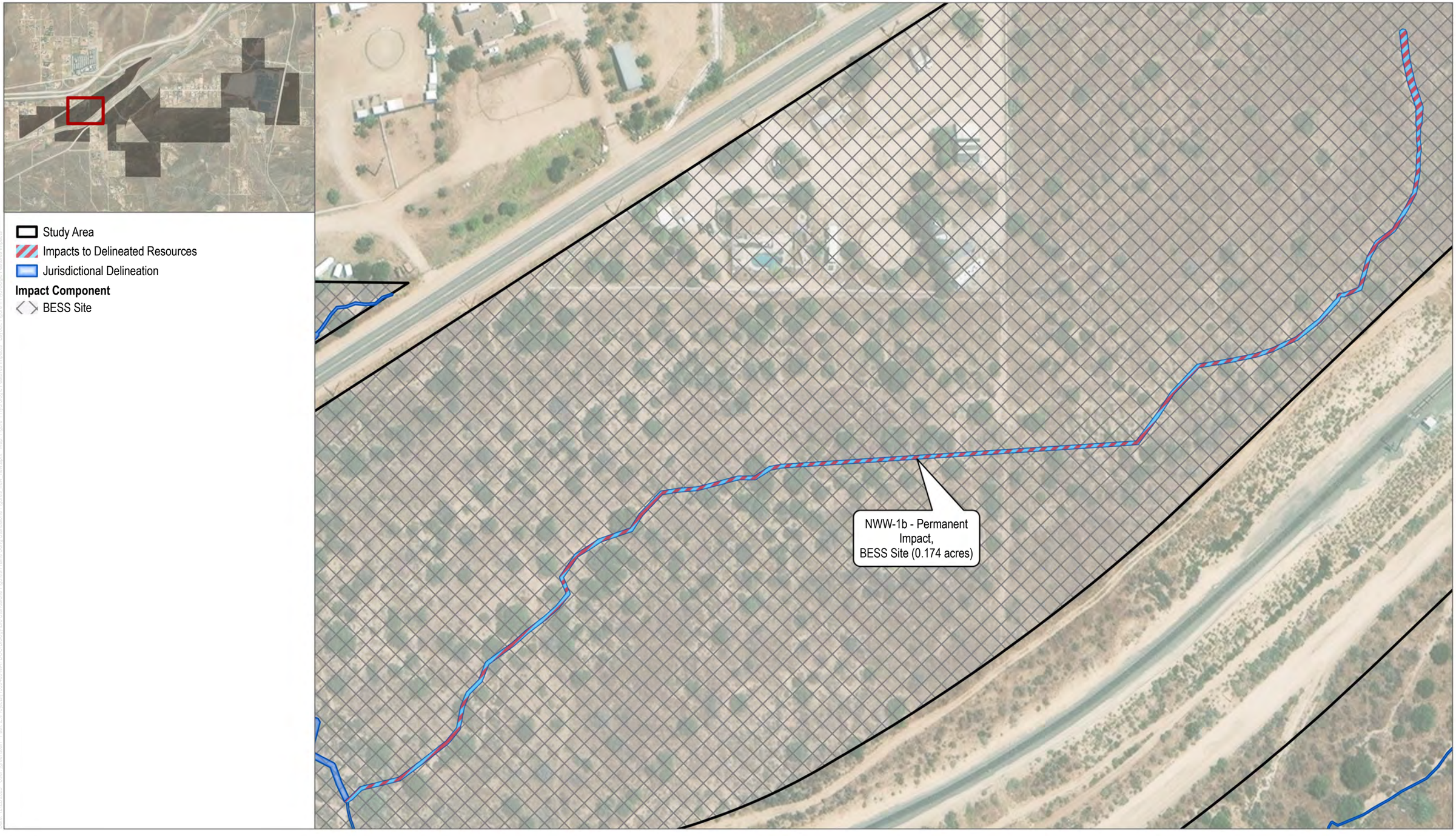
DUDEK

0 35 70 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project



SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 50 100 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area
Impacts to Delineated Resources
Jurisdictional Delineation

Impact Component

BESS Site

NWW-1c - Permanent Impact, BESS Site (0.004 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

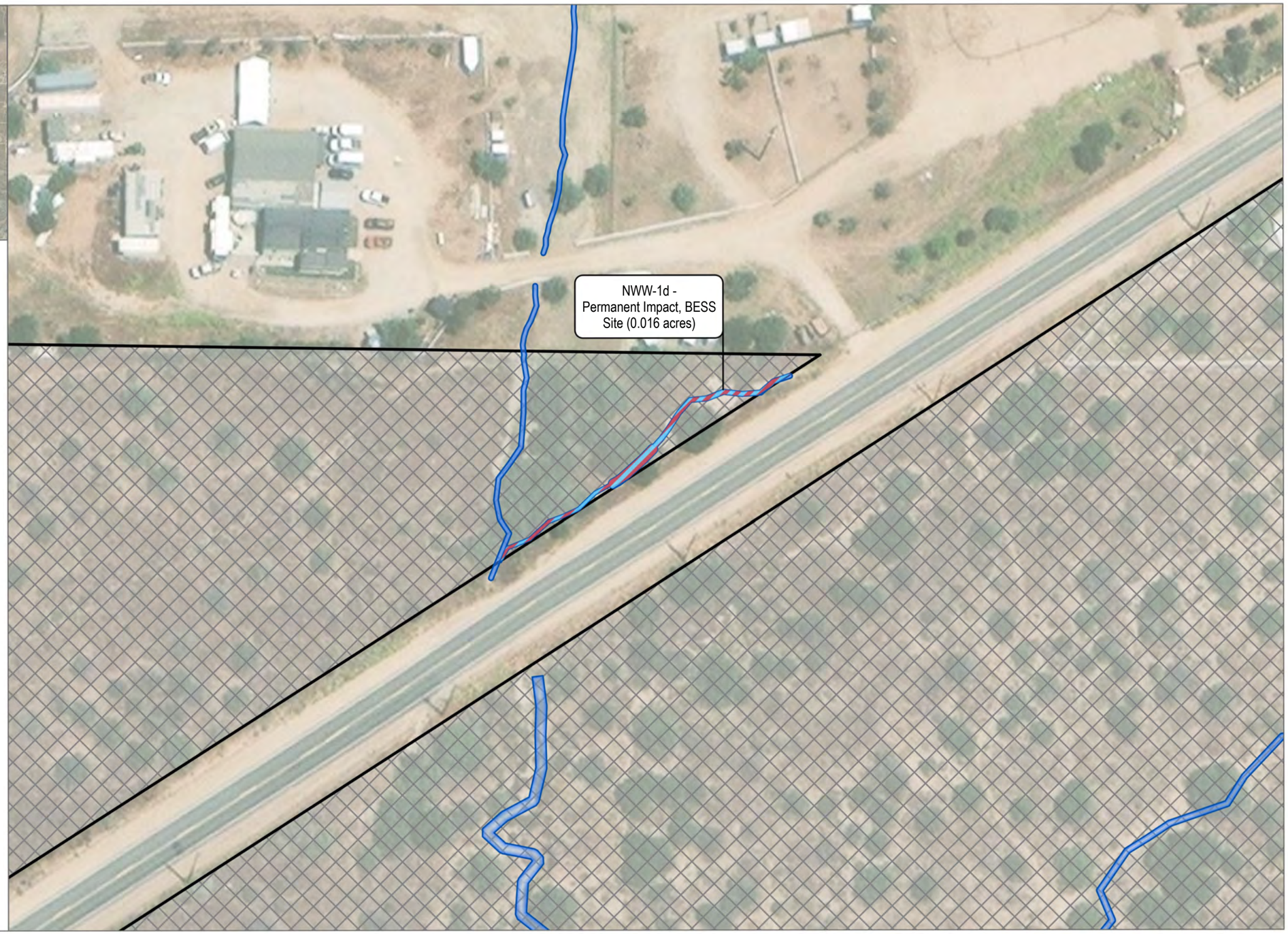
Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area
Impacts to Delineated Resources
Jurisdictional Delineation

Impact Component

BESS Site



SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area

Impacts to Delineated Resources

Jurisdictional Delineation

Impact Component

Gen-Tie Work Area

Pole Pad and Access Roads

NWW-5 - Permanent Impact, Pole Pad and Access Roads (0.011 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

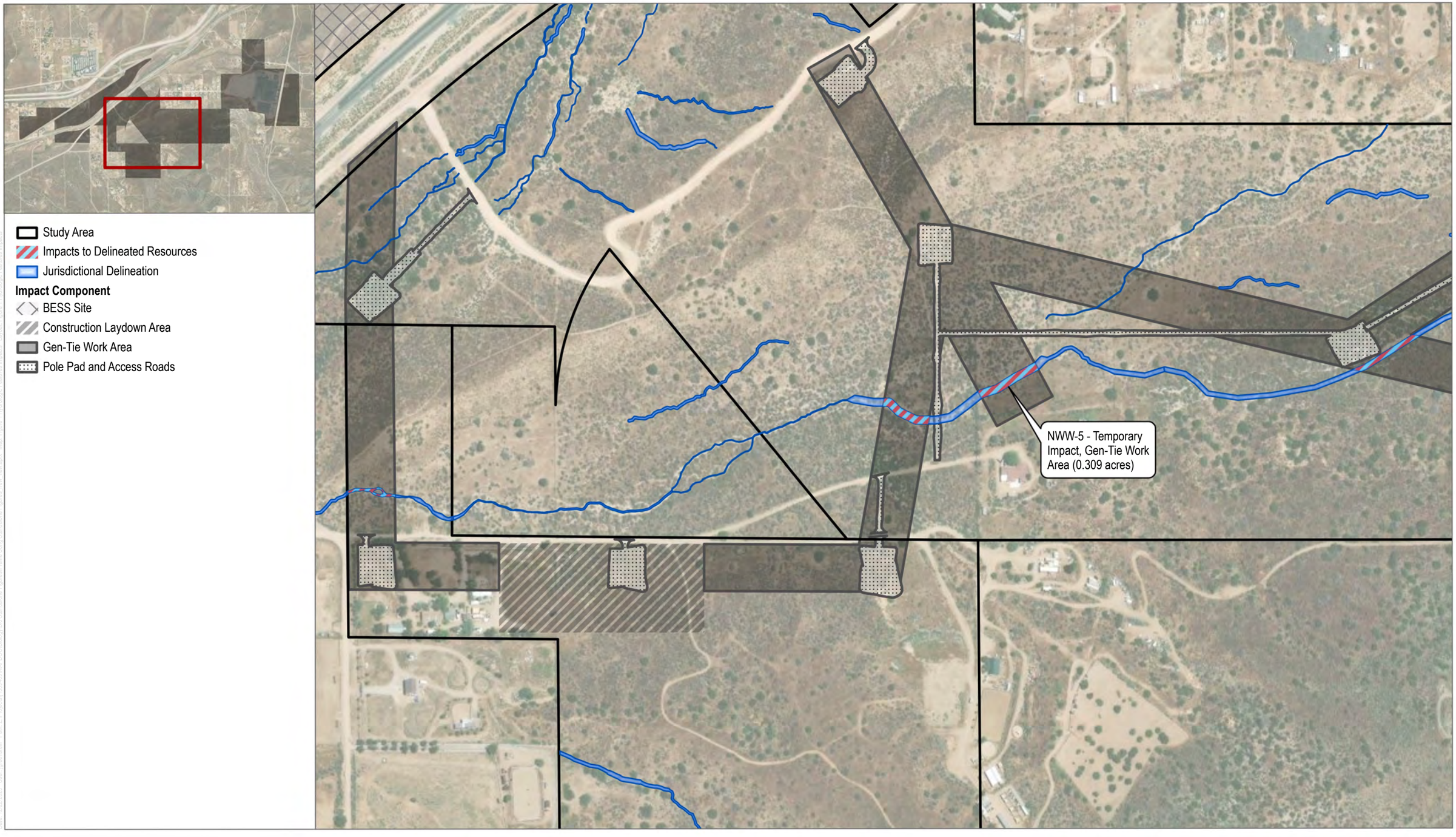
DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project



SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 145 290 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area

Impacts to Delineated Resources

Jurisdictional Delineation

Impact Component

BESS Site

NWW-9 - Permanent Impact, BESS Site (0.034 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

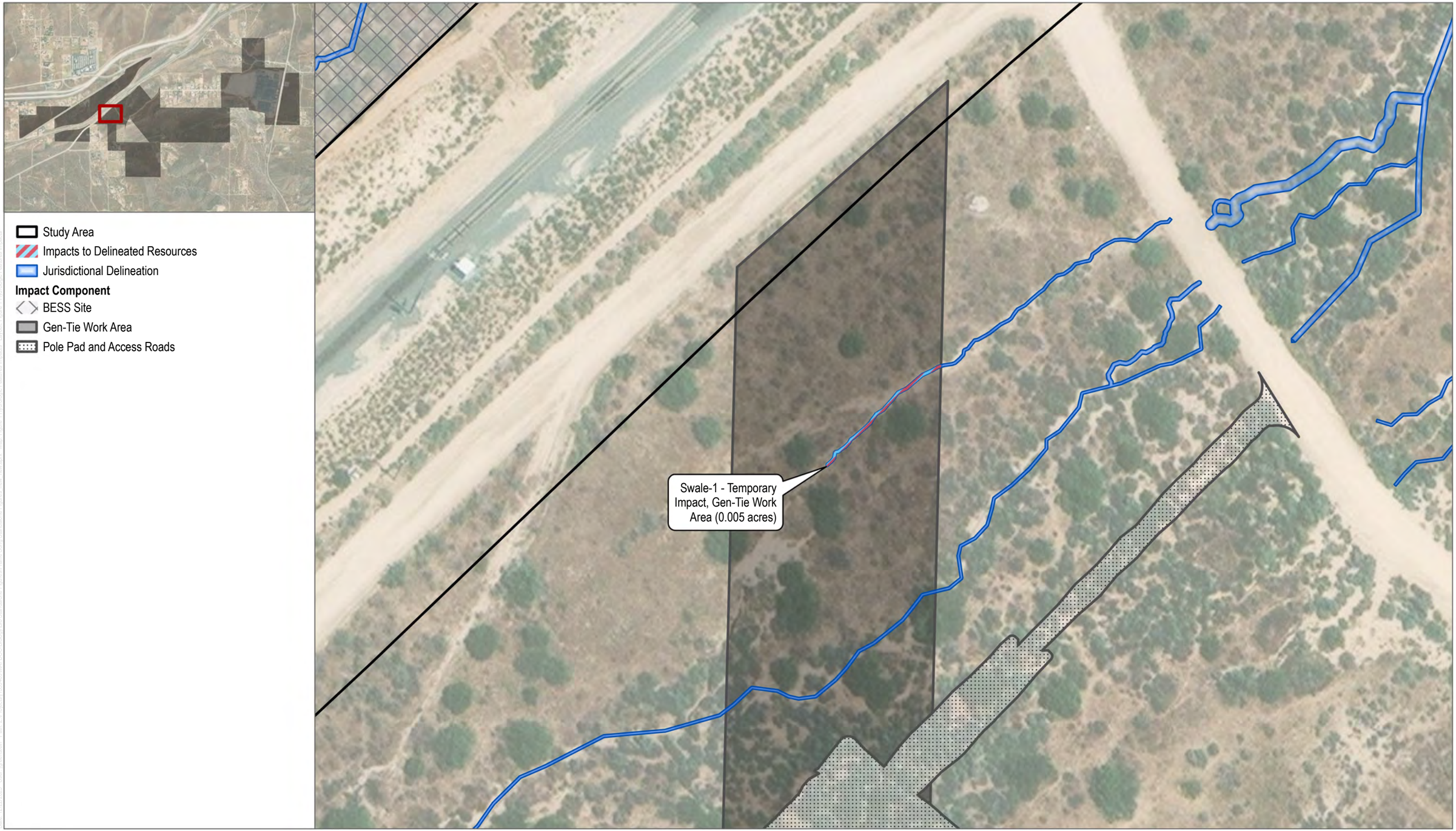
DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project



SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Study Area
Impacts to Delineated Resources
Jurisdictional Delineation

Impact Component

Gen-Tie Work Area
Pole Pad and Access Roads

Swale-3 - Temporary Impact, Gen-Tie Work Area (0.008 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 30 60 Feet

FIGURE 3 - MAPBOOK

Jurisdictional Water Impacts

Prairie Song Reliability Project

Attachment C

Project Description (Overall)

2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt (MW) Prairie Song Reliability Project (Project) located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, an on-site Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE)-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round as well as supported by on-site O&M staff seven (7) days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

2.1 Project Location

The Project will be located in unincorporated Los Angeles County (County), California south of State Route 14 approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Project site is within the Los Angeles County-designated Community Standard District of Action. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor's Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land sandwiched between two (2) existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority (LACMTA)-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection (POI) at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.1 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed

aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. The Project's interconnection facilities will be located within the SCE Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

The nearest municipality to the Project site is the City of Palmdale, which is located approximately four (4) miles to the northeast. There are a few single-family residences adjacent to the BESS facility Site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line.

2.2 Project Objectives

The Project's principle Basic Objectives include the following:

- Construct and operate an up to 1,150MW BESS facility in Los Angeles County with an interconnection utilizing available system capacity at the existing SCE Vincent Substation to balance intermittent renewable generation and serve as an additional capacity resource that will enhance grid reliability.
- Provide new energy storage capacity to assist California electric utilities in meeting obligations under California's Renewable Portfolio Standard Program and Senate Bills 100 and 1020, which require renewable energy sources and zero-carbon resources to supply 60% of all retail sales of electricity to California end-use customers by December 31, 2030, 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% of all retail sales of electricity to California end-use customers by December 31, 2040, and 100% of all retail sales of electricity to California end-use customers by December 31, 2045.
- Provide new energy storage capacity to assist the State of California in meeting its goal of reducing statewide annual greenhouse gas emissions from the electric sector to 25 million metric tons by 2035.
- Provide storage capacity to help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation predominately from emissions free power sources and deliver it back to the grid when demand exceeds real-time generation supply.
- Offer energy storge to curtail dispatch and displace the need for additional fossil fuel based generating stations needed to serve peak demand periods when intermittent renewable sources may be inadequate or unavailable. The additional storage capacity may allow for the deferral or avoidance of regional transmission facilities.
- Provide energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting obligations under the California Public Utilities Commission's (CPUC's) Mid-Term Reliability Procurement and upcoming Reliability and Clean Power Procurement Program Requirements.
- Develop an electricity storage facility in close proximity to a utility grid-connected substation with existing capacity available for interconnection for charging and discharging and the ability to deliver capacity to the load to minimize environmental impacts.
- Secure a location to allow the stored energy to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades.

- Construct and operate a battery energy storage facility in Los Angeles County, resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.
- Locate and gain site control of site large enough and well-suited to support development of the Project's 1,150MW and up to 9,200MWh battery energy storage.
- Develop an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation, to avoid and minimize potential impacts from long 500kV gen-tie lines.
- Locate a site to accommodate a gen-tie line of reasonable length to the POI and the ability to deliver power to the Los Angeles Basin local reliability area during peak demand.
- Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.

2.3 Project Components

The Project will include construction, O&M, and eventual decommissioning of an up to 1,150MW BESS. A 500kV gen-tie connecting the Project substation to the POI within the existing SCE Vincent Substation, will facilitate charging and discharging to the electrical grid.

2.3.1 General Facility Description, Design, and Operation

The BESS facility will include the following primary components (refer to Section 2.3.2, Transmission and Interconnection Description, Design, and Operation for a detailed description of the gen-tie line and interconnection components of the Project):

- Battery Energy Storage System (BESS) Enclosures
- Power Conversion Systems (PCS)
- Medium voltage (MV) Collection System
- Project Substation, Control Building, and Telecommunications Facilities
- Access Roads
- Laydown Yards
- Stormwater Detention Facilities
- Site Security and Fencing
- Fire Detection and Suppression System
- Operations and Maintenance Building
- Existing Distribution Line Reroute

Project components are described in the following subsections. Figure 2-1, Project Site Plan, shows the Project layout. The Project's site plan package is provided in Appendix 2A, and the Project's conceptual landscape plan is included as Appendix 2B. Table 2-1 summarizes the preliminary dimensions of major BESS facility components, and Table 2-2 summarizes the preliminary footprint/disturbance acreage associated with the BESS facility.

Table 2-1. Preliminary Dimensions of Major BESS Facility Components

Component	Quantity	Approximate Dimensions
BESS Enclosures	2,035*	20 ft × 8 ft × 9.5 ft (L × W × H)
PCS	517*	20 ft × 8 ft × 9.5 ft (L × W × H)
MV Collection system	—	Buried in trenches up to 10 ft × 10 ft (W × D)
Project Substation Area	1	2,545 ft × 440 ft (L × W); seven (7) 150 ft (H) (lightning masts)
Control Building	1	27 ft W × 95 ft L × 10 ft H (to ceiling)
Access Roads	—	26 ft (W) internal radii 55 ft minimum
Fire Water Tanks	2	33 ft in Diameter × 16 ft H
Laydown Yards	3	Variable
Stormwater Detention Facilities	2	Variable
Security Wall	—	Minimum 8 ft H block wall topped with 1 ft of barbed/razor wire
Operations and Maintenance Building	2	20 ft × 60 ft × 15 ft (L × W × H)

Notes: BESS = battery energy storage system; PCS = power conversion system; MV = medium voltage.

* The number of BESS enclosures and PCS units will depend on the manufacturer selected. The total number of BESS enclosures and PCS units may increase or decrease in the final design. It is also possible that the BESS units ultimately procured may incorporate the PCS units within the BESS enclosures.

Table 2-2. Preliminary Footprint of BESS Facility

Component	Permanent Disturbance
BESS Yards	30.0 acres
Project Substation	23.1 acres
Access Roads	7.9 acres
Laydown Yards	1.0 acres
Stormwater Detention Facilities	4.1 acres
*Other**	*4.7 acres*
Total+	**70.8 acres**

Notes: BESS = battery energy storage system.

* Other areas include maximum grading limits. The analyses assume that all areas used for the BESS facility are permanently disturbed.

\+ The total permanent disturbance acreage is a conservative estimate, and final designs may require fewer acres. Underground components within the BESS facility will be located within the footprint of above ground disturbance areas.

2.3.1.1 Battery Energy Storage System

The energy storage facility will utilize a modular and containerized BESS. There are several battery cell technologies commercially available, with one of the most common presently being lithium iron phosphate (LFP) cells, or similar. LFP technology is considered one of the safest, most efficient, and commercially financeable energy storage technologies available on the market. The initial Project concept has been developed assuming an LFP technology. By the time the Project reaches the procurement stage, it is possible for other battery cell technology with proven safety and performance records to be suitable for the Project. Although the number and dimensions of the containers may change (as it does between LFP technology providers), the technology ultimately procured will result in potential environmental impacts substantially similar to, or less than, those analyzed based on this Project Description. The Sungrow Power Titan II has been selected for this project application as a representative BESS

enclosure. Sungrow Power Titan II design and operation information is used in this application to set maximum potential impact envelopes, for site design and modeling analysis, and to set baseline safety standards. A final manufacturer for the BESS enclosures will be selected during the detailed design process post-certification. The Project will provide defensible space by setting back all BESS enclosures at least 100 feet from the property boundary.

The BESS enclosures will be prefabricated off site and arrive at the site ready to be installed and commissioned. Each modular BESS enclosure will include battery packs on racks, a battery management system, fire detection systems, thermal management systems (either liquid or air cooled depending final selected technology), and ancillary power electronics within a specialized steel-framed, non-occupiable container. The BESS enclosures will not exceed 15 feet in height.

Over the life of the project the storage capacity of the battery cells will naturally degrade. The project will implement an augmentation strategy to maintain the contractually required capacity of the system. Augmentation will entail either a capacity maintenance approach of adding/replacing individual battery modules in the existing BESS yard or designing the BESS system to incorporate space for additional BESS enclosures for later augmentation. The Project design and analysis front loads the work for the Project augmentation and assumes that it will install the end-of-life capacity at the start of construction. This assumption is made to capture augmentation impacts during construction instead of trying to assume the augmentation schedule for the Project. Equipment type/specifications, capacity agreements, and tax incentives can all change how and when augmentation is completed. Front loading augmentation to occur during construction creates a conservative case for the analysis of potential impacts that could arise from augmentation and sets a maximum impact envelope for the Project. During Project operations, the Project analysis assumes that one (1) crane and one (1) forklift will operate in support of augmentation once every 3 to 5 years for 8 hours per day.

2.3.1.2 Power Conversion System

A PCS is a packaged and integrated, or assembled, system consisting of a bi-directional inverter, MV transformers, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, harmonic filters, equipment terminals, and a connection cabling system. A PCS functions to both convert between DC/AC and change the voltage level from the MV collection voltage to the working voltage of the BESS enclosures.

The PCS will convert electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. Each PCS will also include transformers that convert the AC side output of the inverter between low and medium AC voltage to increase the overall efficiency of the BESS. Inverters within the PCS units will be unattended systems designed to operate in all conditions. The inverters will be monitored and controlled remotely, and there will be on-site disconnects for use in case of an emergency or a situation requiring unscheduled maintenance.

PCS units will be installed on concrete foundations or steel piles and connected to multiple BESS enclosures with wiring and cables installed underground. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association-rated enclosures.

2.3.1.3 MV Collection System

The MV collection system will include multiple components that connect the PCS units to the Project substation including underground conductor circuits, switchboards, switchgear, and panels at 34.5kV. The conductors for the MV collection system will be installed underground during construction using trenching.

To connect the portion of the BESS yard north of Soledad Canyon Road to the Project substation, which is located south of Soledad Canyon Road, a portion of the MV collection system will need to be located underground within Soledad Canyon Road. A 180-foot-wide underground corridor will house the MV collection system as it traverses the road. The MV collection lines under Soledad Canyon Road will be installed using horizontal directional drilling, will be inside six (6) in conduit, covered by a minimum of 42 inches, and spaced 10 feet apart.

2.3.1.4 Project Substation

The Project substation will include six (6) main power transformers (MPTs). When the BESS facility is charging, power from the regional electric transmission grid will be stepped down from 500kV to 34.5kV and sent from the Project substation through the MV collection system and PCS units into the battery packs within the BESS enclosures. When the BESS facility is discharging, power from the battery packs within the BESS enclosures will be sent to the PCS units, stepped up to 34.5kV, and transported to the Project substation through the MV collection system before being stepped up to 500kV at the MPTs and delivered back to the regional electric transmission grid. A control building will be installed within the Project substation area and contain an energy management system, metering, and telecommunication equipment for communication with SCE/California Independent System Operator (CAISO) facilities and to support remote Project operations monitoring. The Project substation area will also include seven (7) static masts, up to 150 feet tall, for lightning protection.

2.3.1.5 BESS Facility Access Roads

The Project's roadway system will utilize existing roads wherever available and feasible and include new facility access roads and driveways, a perimeter road, and internal access roads. All new access roads, driveways, internal and perimeter roads will be bladed, compacted, and surfaced with asphalt. All internal roadways and private driveways will be constructed to meet access requirements for construction, O&M, and emergency response.

2.3.1.6 Laydown Yards

The Project will include up to three (3) laydown yards for equipment and material staging and storage during construction. These areas will also be used for worker parking during construction. The primary laydown yard will be located in the northernmost portion of the BESS site. The primary laydown yard will be bladed, compacted, and surfaced with aggregate, while an additional laydown yard to facilitate construction of the gen-tie line will be cleared of vegetation and surfaced with aggregate or other soil stabilizing materials. Landscape fabric may also be installed under the surface of all laydown yards to prevent vegetation growth, if required to comply with fire prevention standards. The O&M building and required number of parking spaces for O&M staff will be constructed within the primary laydown following construction of the BESS facility components.

The proposed Project's preliminary layout, earthwork volumes, and Project component dimensions assumed for environmental analyses in subsequent chapters are conservatively large to allow for design flexibility within the project footprint and Project schedule preservation.

2.3.1.7 Stormwater Detention Facilities

Regulatory standards require that volumes and flow rates of stormwater discharge after construction are not to exceed pre-development conditions. Stormwater generated on-site will flow to underground stormwater detention chambers located in the southwestern portions BESS facility site (Figure 2-1, Project Site Plan). Stormwater treatment and storage sizing will be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with applicable regulations. After a rainfall event, stormwater will infiltrate into the subgrade underneath the stormwater chambers. If the design capacity of the stormwater chambers is exceeded, however, stormwater may be stored in available upstream areas such as catch basins, infiltration trenches, or drain as sheet flow from the surface.

2.3.1.8 Site Security

The BESS facility site will be enclosed with a minimum 8-foot-tall block wall topped with 1 foot of three-strand barbed wire or razor wire. The wall will be installed on the outside of the perimeter roads. The wall will be required to prevent unauthorized access and to comply with human health and safety regulations. Gates will be installed at various access points along the wall and equipped with locks and knox boxes to allow for authorized personnel (e.g., transmission service provider, O&M staff, emergency response) to access appropriate portions of the BESS facility site. The wall will serve a dual purpose for security and off-site noise reduction (see Section 3.7, Noise).

Lighting will only be in areas where it is required for safety, security, or operations. Controlled security lighting no more than 28 feet tall will be installed at the Project substation and around the BESS yards, in accordance with applicable requirements and regulations. Permanent motion-sensitive, directional security lights will be installed to provide adequate illumination around the substation area and points of ingress/egress. All lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties, compliant with applicable codes and regulations. Security cameras will be placed on site and monitored 24/7.

2.3.1.9 Fire Detection and Suppression System

Fire protection will include multiple fire detection systems on-site and within the individual BESS enclosures. Each BESS enclosure will have a fire rating in conformance with the California Fire Code 2022. In addition, each BESS enclosure will contain an onboard battery management system that monitors the appropriate state of individual battery cells and relays information 24/7 and an internal Fire Alarm Control Panel that will identify which units have incidents and will notify first responders. In the event of an anomaly, the system is designed to shut down and mitigate the hazard.

The Project's fire protection design will comply with California Fire Code 2022, Section 1207 Electrical Energy Storage Systems, which adopts the National Fire Protection Association's Standard for the Installation of Stationary Energy Storage Systems (NFPA 855). BESS enclosures will be Underwriters Laboratories (UL) listed, tested, and certified to the most rigorous international safety standards. UL independently tests equipment for compliance with the latest fire safety code requirements, and the methods were developed to minimize fire risk and safety concerns about battery storage equipment raised by fire departments and building officials in the United States.

Faults, mechanical damage, or manufacturing defects in lithium-ion batteries can cause thermal runaway, which can lead to fires or other hazards. Should a thermal runaway event occur, the BESS enclosures are designed and constructed in such a way that fire will not propagate from one enclosure to a neighboring enclosure. The Project's

BESS enclosures, as part of the testing and listing process, will be subjected to destructive testing including fire testing. The Project's BESS enclosures will include the following UL certifications:

- UL 1642 – Standard for Lithium Batteries (cell level certification).
- UL 1973 – Standard for Batteries for Use in Stationary Applications (module level certification).
- UL 9540 – Standard for Energy Storage Systems and Equipment (system level certification).
- UL 9540A – Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.
- IEC 62619 – Standard for Battery Safety in Stationary Applications.

The BESS facility ingress/egress and circulation will be designed to comply with LA County's Draft fire regulations. Each portion of the BESS facility (the BESS yards north and south of Soledad Canyon Road.) will have primary and secondary access points. The BESS yard north of Soledad Canyon Road. will have a primary access point in the southwest corner of the site and a secondary access point in the northwest corner of the site, near the O&M buildings and laydown yard. The BESS yard south of Soledad Canyon Road. will have a secondary access point directly across from the secondary access point for the northern BESS yard and a primary access point that is approximately 1,030 feet east of the secondary access point. There will also be an access point for the Project Substation that is approximately 340 feet east of the BESS yard primary access point, in the approximate middle of the Project area that is south of Soledad Canyon Road. All access points will have Knox boxes and will connect to roads that are 26 feet wide (see Appendix 2A Fire Safety and Water Circulation Plan PSR-BE-201).

Water for fire defense will be provided via an on-site well that will serve two (2) 40,000-gallon water tanks. There will be a separate water tank and booster pump in each of the BESS yards. The water tanks will serve hydrants located throughout the BESS yards. Hydrants were specifically located to be no more than 300 feet apart throughout the BESS yards. The project commissioned a fire water supply assessment that concluded that the maximum amount of water necessary to fight a fire on the site would be 15,000 gallons (see Appendix 3.17A). The project will provide 40,000 gallons of water at each BESS yard.

The fire water line system has been highlighted in PSR-BE-201. PSR-BE-201 shows the existing well in the south BESS yard and the water line connection to the water tank in that same yard (approximately 245 feet to the northeast of the existing well). The water tank and associated pumphouse serve as the distribution point for the fire water line. Three (3) lines leave the pumphouse. Two (2) fire water lines support the hydrant system in the south BESS yard. The loops follow the road and surround each of the BESS blocks. The third fire water line runs southwest along the northern road in the south BESS yard until it comes to the first responder secondary entrance. The fire water line then heads north and crosses Soledad Canyon Road along the northeastern side of the two (2) opposing first responder secondary entrances. Once in the north BESS yard, the fire water line heads back southwest along the southern road in the north BESS yard for approximately 1,030 feet. The fire water line then heads north and connects to the pump house and water tank in the north BESS yard. There are two (2) fire water lines that exit the pump house in the north BESS yard that serve the hydrants that are spaced along access roads and surround the BESS blocks.

The Los Angeles County Fire Department will review and comment on the facility fire protection and suppression plans.

2.3.1.10 Operations and Maintenance Building

O&M buildings will be constructed for the Project's anticipated 16 full-time operations staff and is planned to be in the easternmost portion of the BESS yard north of Soledad Canyon Road. The O&M buildings will include parking, outside equipment and laydown areas, basic offices, meeting rooms, washroom facilities and climate-controlled storage for certain equipment and materials. An existing groundwater well will provide water for washroom and a septic system will provide for sanitary facilities. The existing groundwater well is located south of Soledad Canyon Road on APN 3056-019-026. To serve the O&M buildings and fire water needs, which are located north of Soledad Canyon Road, an underground water line will be constructed from the existing groundwater well to the O&M buildings as shown in Figure 2-1, Project Site Plan. A portion of the water line will be located within Soledad Canyon Road as shown in Figure 2-1, Project Site Plan. The water line will run under Soledad Canyon Road along the northeast edge of the opposing first responder secondary access points between the north and south BESS yards. The water line will be covered by a minimum of 24 inches of material. The water line will be installed via horizontal directional drilling.

2.3.1.11 Existing Distribution Line Reroute

There is currently an SCE overhead electrical distribution line that bisects the southern portion of the BESS facility site. The distribution line consists of wooden poles with a cross bar carrying the distribution lines. The Project plans to reroute this line around the BESS facility site using similar distribution poles and wires. The Project will alter the existing distribution line route from where it enters the property on the south side of the BESS facility site. The Project will install approximately nine (9) poles similar to the existing poles, outside of the BESS facility site wall, along the southern and western boundary of the BESS facility site south of Soledad Canyon Road until they connect with Soledad Canyon Road. At Soledad Canyon Road, the new distribution line will tie into the existing distribution line at the western boundary of the southern BESS facility site (See Appendix 2A Distribution Line Reroute PSR-SE-103).

2.3.2 Transmission and Interconnection Description, Design, and Operation

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.1-mile-long or 1.8-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure (see Figure 2-1, Project Site Plan, site layout Pole 10), and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize

the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Project components associated with transmission and interconnection facilities are described in the following subsections. Figure 2-2, Transmission Line Route, shows the gen-tie routes, scattered rural residences, scenic areas (scenic drives and the Los Angeles National Forest), and existing transmission lines within 1 mile of the proposed routes. There are no parks or recreational areas within 1 mile of the proposed routes. Table 2-3 summarizes the preliminary dimensions of major transmission components, and Table 2-4 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario). Section 3.13, Visual Resources, includes photographic simulations of a representative above ground section of the gen-tie route prior to construction and after construction.

Table 2-3. Preliminary Dimensions of Major Transmission Components

Component	Quantity	Approximate Dimensions
500kV Gen-Tie Line	1	Applicant Owned: North: 3,500 ft long / South: 7,300 ft long
		SCE Owned: 2,800 ft long
Substation Bay Dead-End Transmission Structure	1	Applicant Owned: 170 ft tall
		SCE Owned: n/a
Angled Dead-End Transmission Structure	up to 7	Applicant Owned: 175 ft tall to 195 ft tall
		SCE Owned: n/a
Tangent Delta Transmission Structure	1	Applicant Owned: 155 ft tall (Northern Gen-Tie Route) to 180 ft tall (Southern Gen-Tie Route)
		SCE Owned: n/a
Lattice Tower Transmission Structure	2	Applicant Owned: n/a
		SCE Owned: 234 ft tall to 243 ft tall
Conductors	1	Applicant Owned: North: 30,800 ft / South: 63,000 ft
		SCE Owned: 16,000 ft
Overhead Shield Wire	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 2,900 ft
Fiber Optic Cables on Gen-Tie Structures	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 2,900 ft
Fiber Optic Cables Underground	2	Applicant Owned: 12,000 ft
		SCE Owned: 5,700 ft
Transmission Structure Access Path	Varies	26 ft wide
Transmission Line Corridor	1	150 ft wide

Notes: kV = kilovolt; SCE = Southern California Edison; gen-tie = generation interconnection.

Table 2-4. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total	**3.62 acres**	**~23.63 acres**
SCE Portion		
Transmission Structure Pad	0.3 acres	—
Transmission Structure Access Path	0.5 acres	—
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	8.99 acres
SCE Total	**0.8 acres**	**8.99 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.

2.3.2.1 500kV Gen-Tie Line

The 500kV gen-tie line will originate at the Project substation within the BESS facility site and extend south and east, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, as close to perpendicular as possible, and then proceed northeast to the POI at the Vincent Substation. The Project proposes a Northern Gen-Tie Route and Southern Gen-Tie Route. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

The interconnecting 500kV transmission single-circuit configuration will be overhead. The gen-tie line will be constructed with either monopole tubular steel poles or steel lattice towers. Gen-tie structures will be at least 155 feet tall, with a maximum height of 243 feet. There will be a total of approximately 1 monopole or steel lattice tower structures. The total number of gen-tie structures will be determined by the final design of the gen-tie line. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

The POCO will be located on APN 3056-015-008 (see Pole 10 within Figure 2-1, Project Site Plan). The POCO is the point where the conductors of the Generation Tie-Line are attached to the Last Structure, which will be connected on the side of the last project owned structure (Last Structure) facing Vincent Substation. The project shall own and maintain the Last Structure, the conductors, insulators and jumper loops from such Last Structure to the Interconnection Customer's Large Generating Facility. SCE will own and maintain the Vincent Substation, as well as all towers, transmission lines, circuit breakers, disconnects, relay facilities and metering within the Vincent Substation, together with the line drop, in their entirety, from the Last Structure to Vincent Substation. SCE will own the insulators that are used to attach the project-owned conductors to the Last Structure.

The conductor from the site to the POCO is planned to be triple bundle 795 Drake or equivalent. The conductor from the POCO to the Vincent Substation will be double bundle 2156 Bluebird or equivalent.

Table 2-3 includes the approximate number and dimensions of the different types of transmission structures that will be used.

2.3.2.2 Transmission Structure Access Path

Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. A transmission structure access path up to 26 feet wide will be located within portions of the transmission corridor outside of the BESS facility and Vincent Substation footprints and generally follow the centerline of the gen-tie.

2.3.2.3 Telecommunication Facilities

The facility will be designed with a comprehensive Supervisory Control and Data Acquisition (SCADA) System to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching leading to a SCADA system cabinet at the Project substation. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers.

The Project's SCADA system will interconnect to an external fiber optic network or fixed wireless service at the Project substation and will require installation of buried fiber optic cables underground or fixed wireless antennas. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers, so no additional disturbance associated with telecommunications is anticipated. As such, the Project will not require any substantial construction efforts regarding telecommunications facilities and structures. No relocation of existing telecommunication structures will occur.

Telecommunications equipment will be installed between the control building at the Project substation and the Vincent Substation to facilitate communication with SCE/CAISO facilities. To achieve communication requirements with the Vincent Substation, the project will involve the following:

- Install optical ground wire on the Generation Tie-Line to provide one (1) of three (3) telecommunication paths required for the line protection scheme, the remote terminal units. A minimum of eight (8) strands within the optical ground wire shall be provided for SCE's exclusive use into Vincent Substation.
- Install appropriate single-mode fiber optic cable from the Project Site to a point near the POCO to the Vincent Substation to provide the second telecommunication path required for the line protection scheme and the RAS. A minimum of eight (8) strands within the single-mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.
- Install appropriate single mode fiber optic cables from the Project Site to a point designated by SCE near the Vincent Substation to provide a third telecommunication path required for the Generation Tie-Line protection scheme. A minimum of eight (8) strands within the single mode fiber optic cable shall be provided

for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.

- Own, operate and maintain all three (3) telecommunication paths (including optical ground wire, any fiber-optic cables, and appurtenant facilities) up to the POCO.

In addition to the telecommunications equipment installed by the Project, SCE will install the following equipment:

- Lightwave, channel, and associated equipment (including terminal equipment), supporting protection and the remote terminal unit requirements at the Project Site and Vincent Substation for the interconnection of the Project. Notwithstanding that certain telecommunication equipment, including the telecommunications terminal equipment, will be located on the Interconnection Customer's side of the POCO, SCE shall own, operate and maintain such telecommunication equipment as part of the SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, from the Vincent Substation 500kV switchrack to extend the fiber optic cable and conduit into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) 4' × 4' × 6' vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, to extend the Project's second diverse telecommunications from the point designated by SCE near the SCE's Vincent Substation into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) vault to extend the Project's diverse telecommunications into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of the SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, from the point designated by the SCE to extend the Project's third diverse fiber optic cable to into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 950 feet of underground fiber optic cable and associated conduit, and one (1) 4' × 4' × 6' vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of the Participating TO's Interconnection Facilities.

To meet these requirements, the Applicant and SCE will install one (1) of the three (3) fiber optic lines aboveground on the gen-tie structures. The two (2) other fiber optic lines will be installed underground within trenches anticipated to be up to 4 feet wide within the Southern Gen-Tie Route corridor and separated by at least 25 feet. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. Where the underground fiber optic line leaves the BESS facility site it will be installed via horizontal directional drilling underneath the railroad tracks. Horizontal directional drilling is a trenchless construction technique used to install underground utilities like pipelines and conduits without disturbing the surface. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

2.3.2.4 Interconnection Facilities within Existing SCE Vincent Substation Footprint

To facilitate interconnection of the BESS facility to the electric transmission grid, SCE will need to install one (1) 500kV dead end structure, nine (9) 500kV coupling capacitor voltage transformers, three (3) 500kV line drops, three (3) line current relays, and one (1) 500kv line position which includes the following equipment: seven (7) 500kV circuit breakers, seven (7) 500kV disconnect switches, 84 insulators, and two (2) breaker failure backup relays. No additional network upgrades outside of the Vincent Substation are necessary to interconnect the project to the grid.

2.3.2.5 Transmission System Impact Studies

The Project will interconnect to SCE's transmission system within the CAISO planning area. CAISO identified two (2) potential Affected Systems from the QC12 Phase I Interconnection Study: California Department of Water Resources and Los Angeles Department of Water and Power.

The Applicant has contacted both potential affected systems and both have responded that the Project will not have any negative impact on their systems (see Confidential Appendix 2C).

The Applicant filed an Interconnection Request with CAISO in the Cluster 12 Interconnection Request window. CAISO, in cooperation with SCE, prepared the Phase I Interconnection Study (January 15, 2020), and Phase II Interconnection Study (November 20, 2020). The Applicant entered into a Large Generator Interconnection Agreement with CAISO and SCE on January 28, 2022. The Project's Phase I and II Interconnection Studies are included in Confidential Appendix 2C.

2.3.2.6 California Public Utilities Commission General Orders

Because SCE is an investor-owned electric utility, the SCE Improvements described above, are regulated by CPUC. CPUC General Orders (GO) cover regulatory requirements for investor-owned electrical utilities.

The Project will comply with applicable GOs, including GO 95 (Rules for Overhead Electric Line Construction) and GO 128 (Rules for Construction of Underground Electric Supply and Communications Systems).

2.3.2.7 Transmission System Design

One-line diagrams for the Project substation are included in Appendix 2A Single Line PSR-SE-001. The one-line diagrams include all equipment ratings including the bay arrangement of the circuit breakers, disconnect switches, buses, transformers, and other equipment that will be required for the Project interconnection at the Project site.

A one-line diagram for the Project's interconnection at the SCE Vincent Substation is included in Confidential Appendix 2C, specifically within Appendix A of the Large Generator Interconnection Agreement (Page 106 of 137).

Table 2-5 below, Transmission System Design/Safey and Nuisance Regulations, identifies transmission system design laws, regulations, ordinances, and standards; adopted local, regional, state, and federal land use plans; and leases and permits applicable to the Project.

The applicant plans on installing triple bundle 795 Drake or equivalent from the BESS to the POCO. Depending on the selected route, the length of the applicant's conductor will be either 30,800 feet for the Northern Route or 63,000 feet for the Southern Route. These lengths represent the total conductor length of all phases along the applicant's portion of the 500 kV route (North: 3,500 feet long/South: 7,300 feet long). In determining the line type, the Project assumed a Max Operating Temperature of 212 degrees Fahrenheit as well as the other inputs from the Phase II SCE design. The allowable ampacity of the original conductor was 1,485 amps. The current conductor design has an ampacity of 3,396 amps. Allowable ampacity affects how much energy the line can carry, so an increase in ampacity equates to an increase in carrying capacity. Triple bundle 795 Drake will be located vertically along monopoles in the applicant-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-005 through PSR-TL-008).

SCE plans on installing double bundle 2156 Bluebird or equivalent from the POCO to the Vincent Substation. SCE will install approximately 16,000 feet of conductor on their towers. This length represents the total conductor length of all phases along the SCE portion of the 500 kV route (2,800 feet long). SCE has sized the double bundle 2156 Bluebird to meet the carrying capacity requirements for the Project and will locate the conductor vertically along tower in the SCE-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-009).

Table 2-5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
CPUC GO-95	Rules for Overhead Electric Line Construction
NESC	National Electrical Safety Code (NESC)
GO-128	Rules for Construction of Underground Electric Supply and Communication Systems
GO-131-D	Rules for Planning and Construction of Electric Generation Line and Substation Facilities in California
Decision 93-11-013	California Public Utilities Commission (CPUC) EMF Decision
CPUC GO-52	Construction and Operation of Power and Communication Lines for the Prevention or Mitigation of Inductive Interference
ASCE 48-19	Design of Steel Transmission Structures
ASCE 74	Guidelines for Electrical Transmission Line Structural Loading
ASCE 113	Substation Structure Design Guide
FAA 70/7460	Proposed Construction and/or Alteration of Objects that May Affect the Navigation Space
IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System
IEEE 525	Guide for the Design and Installation of Cable Systems in Substations
IEEE 605	Guide for Bus Design in Air Insulated Substation
IEEE 691	Guide for Transmission Structure Foundation Design and Testing
IEEE 738	Standard for Calculating the Current-Temperature Relationship of Bare Overhead Conductors
IEEE 1127	Guide for the Design, Construction, and Operation of Electric power Substations for Community Acceptance and Environmental
IEEE 1427	Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations
IEEE 1863	Guide for Overhead AC Transmission Line Design

Table 2-5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
47 CFR 15.25, "Operating Requirements, Incidental Radiation	Prohibits operations of any device emitting incidental radiation that causes interference to communications; the regulation also requires mitigation for any device that causes interference
Title 14 CFR, Part 77, "Objects Affecting Navigable Airspace"	Describes the criteria used to determine whether a "Notice of Proposed Construction or Alteration" (FAA Form 7460-1) is required for potential obstruction hazards.
FAA Advisory Circular No. 70/7460-1M, "Obstruction Marking and Lighting"	Describes the FAA standards for marking and lighting of obstructions as identified by FAA Regulations Part 77

2.3.2.8 Transmission Line Safety and Nuisance

The electrical effects of high-voltage transmission lines fall into two (2) broad categories: corona effects and field effects. Corona is a luminous discharge due to ionization of the air surrounding a conductor around the surface of an energized conductor and associate hardware when the voltage gradient exceeds a certain critical value during certain conditions. Corona may result in radio and television reception interference, audible noise, light, and production of ozone. Corona is a function of the voltage of the line, the diameter of the conductor, and the condition of the conductor and hardware surface. Corona performance is predicted using empirical equations from high-voltage line measurements. The methodology has been validated for predicting corona-induced noise and interference. The electric field gradient is the rate at which the electric field changes and is directly related to the line voltage and the geometric configuration of the line. Field effects are the voltages and currents that may be induced in nearby conducting objects. A transmission line's inherent electric and magnetic fields cause these effects. Operating power lines produce electric and magnetic fields commonly referred to as an electromagnetic field (EMF). The EMF produced by the AC electrical power system in the U.S. has a frequency of 60 hertz, meaning that the intensity and orientation of the field changes 60 times per second. The electric field (EF) is expressed in V/m or kV/m, and magnitudes are often given in root-mean-square (rms) units. Magnetic field is generated by electrical currents. Transmission lines create time-varying magnetic fields measured in Gauss (G) or milligauss (mG). Electric fields are calculated using an imaging method, while magnetic fields are obtained by summing fields from currents in all conductors, assuming balanced three-phase currents

Corona from a transmission line may result in the production of audible noise (AN), radio influence voltage (RIV) and television interference.

The electric field gradient is greatest at the surface of the conductor. Large-diameter conductors have lower electric field gradients at the conductor surface and, hence, lower corona than smaller conductors, everything else being equal. Also, irregularities (such as nicks and scrapes on the conductor surface) or sharp edges on conductors and insulators hardware concentrate the electric field at these locations and, thus, increase corona at these spots. Similarly, contamination on the conductor surface such as dust or insects can cause irregularities that are a source for corona. Raindrops, snow, fog, and condensation are also sources of irregularities.

2.3.2.8.1 Audible Noise, Corona Losses, and EMF Model Results

EMFs, audible noise, and radio and television interference near power lines vary regarding the line design, line loading, distance from the line, and other factors. Electric fields, corona, audible noise, and radio and television

interference depend on line voltage and not on the level of power flow. The calculations were made under maximum operating voltage. The line design includes triple-bundled 795 thousands of circular mils (kcmil) ACSR Drake conductors on monopole structures and double-bundled 2156 kcmil ACSR Bluebird conductors on SCE lattice towers. Table 2-6 shows the audible noise under fair weather, max audible noise under foul weather, and the Environmental Protection Agency's 55 day–night average sound level criteria.

Table 2-6. 500kV Audible Noise

Gen-Tie Design	Max Audible Noise at Edge of Right of Way (dBA)	Normal Audible Noise at Edge of Right of Way (dBA)	EPA 55 day-night sound level criteria (dBA)
SCE Owned Lattice Tower	55.1	30.1	48.5
Delta Monopole	51.0	26.0	
Deadend Monopole	49.6	24.6	

Source: Appendix 2D and 2E.
Notes: gen-tie = generation interconnection; dBA = A-weighted decibels; SCE = Southern California Edison.

Corona losses are estimated to range from .52 Watts/m -.913 Watts/m under fair weather conditions and 74.5 Watts/m – 130.5 Watts/m under foul weather conditions. One (1) study calculated radio interference induced by corona from a 500kV three-phase transmission line at approximately 45 decibels above 1 microvolt per meter (dB[1μV/m]3; henceforth referred to as dB) at approximately 88 feet (27 meters) away from the outermost phase of a transmission line (Tejada-Martinez et al. 2019). Measured radio interference was generally similar to calculated values particularly for conductors strung on towers horizontally but was found to be closer to 50 dBuV/m for conductors strung on towers in a vertical manner. Two (2) other studies of 500kV transmission lines at the same distance from center phase calculated radio interference at approximately 30 dB to generally below 60 dB, except for when subconductors were spaced closely together, depending on the geometric parameters (e.g., conductor size, conductor spacing) (El Dein 2013; Phaiboon et al. 2000). As discussed above, wet weather and other conditions (e.g., debris build up on conductors) can affect corona and therefore radio interference, with higher interference anticipated in wetter weather. The 500kV transmission lines would be engineered and installed so as to avoid harmful interference with radio or other transmissions.

The magnetic field is proportional to line loading (amperes), which varies as demand for electrical power varies and as generation from the generating facility is changed by the system operators to meet changes in demand. The magnetic field at the edge of the gen-tie right-of-way is expected to range from 99.09 mG to 171.29 mG. The electric field at the edge of the right-of-way is expected to range from 0.342 kilovolts/meter (kV/m) – 1.777 kV/m).

Overall, construction and operation of the Project, including the interconnection of the facility with SCE's transmission system, are not expected to result in increases in EMF levels, corona, radio interference, or audible noise and mitigation would not be required.

2.4 Construction

The following sections detail the approximate construction schedule and workforce, construction activities, estimated water use, and materials handling proposed by the Project.

2.4.1 Schedule and Workforce

The Project is anticipated to be built over an approximately 20-month period from the onset of site preparation activities through energization. Following energization, testing and commissioning will take place over 6 months. Initial mobilization and site preparation is anticipated to begin no later than March 2027 and testing and commissioning is anticipated to conclude no later than April 2029. The commercial operation date (COD) is expected shortly following the completion of testing and commissioning in June 2029. It is anticipated that construction crews will work 8 hours to 10 hours per day, with work occurring Monday through Friday. Overtime, night work, and weekend work will be used only as necessary to meet the Project schedule or complete time-sensitive or safety critical work. All work schedules will comply with applicable California labor laws and County regulations. Estimated durations of construction activities are presented in Table 2-7.

Table 2-7. Estimated Construction Activity Duration

Construction Activity	Estimated Duration	Estimated Timeframe
Demolition	2 weeks	3/1/2027–3/12/2027
Site Preparation	1.5 months	3/1/2027–4/15/2027
Substation Site Preparation	2 weeks	4/16/2027–4/30/2027
Civil Work and Grading	4 months	5/1/2027–8/31/2027
Substation Civil Work and Grading	1 month	9/1/2027–9/30/2027
Paving	1.5 months	8/15/2027–9/30/2027
Battery Enclosure/PCS Installation	12 months	10/1/2027–10/1/2028
Project Substation Installation	8 months	2/1/2028–10/1/2028
Gen-Tie Foundations and Structure Erection	4 months	2/1/2028–5/31/2028
Gen-Tie Line Stringing and Pulling	1 month	6/1/2028–7/1/2028
SCE Interconnection Facility Upgrades within Vincent Substation	6 months	4/1/2028–10/1/2028
Testing and Commissioning	6 months	10/2/2028–4/1/2029

Note: PCS = power conversion system.

2.4.2 Sequencing

During construction activities, multiple crews will be working on the site with various equipment and vehicles. The daily number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) will range from approximately 50 to 250 workers, depending on the phase of construction. It is estimated that construction will require the vehicle trips and equipment listed in Table 2-8.

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Demolition	10	4	6	Rubber tired dozer	1	10
				Concrete/Industrial Saws	1	10
				Tractors/Loaders/ Backhoes	2	10
Site Preparation	242	12	24	Tractors/Loaders/ Backhoes	2	10
				Excavator	2	10
				Rubber tired dozer	2	10
Substation Site Preparation	242	12	100	Tractors/Loaders/ Backhoes	1	10
				Excavator	1	10
				Rubber tired dozer	1	10
Grading	242	12	524	Graders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Rollers	2	10
Substation Grading	242	12	486	Graders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Rollers	1	10
Paving	16	0	0	Pavers	2	10
				Paving Equipment	2	10
				Rollers	2	10
Battery Enclosure/ PCS Installation	121	12	20	Air Compressors	1	10
				Cranes	1	10
				Forklift	1	10
				Tractors/Loaders/ Backhoes	1	10
Substation Installation	121	12	4	Aerial Lifts	1	10
				Air Compressors	1	10
				Bore/Drill Rigs	1	10
				Forklift	1	10
				Trenchers	1	10
Gen-Tie Foundation and Tower Erection	121	12	0	Air Compressors	1	10
				Cranes	1	10
				Forklifts	1	10
				Pumps	1	10
				Welders	1	10

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Gen-Tie Stringing and Pulling	121	12	0	Aerial Lift	1	10
				Tractors/Loaders/ Backhoes	1	10
SCE Interconnection Facility Upgrades	121	12	0	Air Compressors	4	10
				Cranes	2	10
				Excavators	2	10
				Rough Terrain Forklifts	2	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Trencher	1	10
Testing and Commissioning	242	12	0	NA	NA	NA
Decommissioning	242	12	20	Concrete/Industrial Saws	2	10
				Cranes	2	10
				Rubber Tired Dozers	2	10
				Tractors/Loaders/ Backhoes	2	10

Notes: PCS = power conversion system; gen-tie = generation interconnection; SCE = Southern California Edison.

[1] The average daily haul truck trips for each phase consider phase durations from Table 2-7.

* The Project layout depicted in Figure 2-1, Project Site Plan, shows the "End of Life" configuration of the BESS, meaning it shows the equipment layout after all augmentation units are implemented. The numbers in this table conservatively assume that foundations and BESS equipment installation related to augmentation occurs during initial construction of the facility. Construction of foundations and BESS equipment installation for augmentation may occur during O&M periodically within the BESS facility footprint.

2.4.3 Site Preparation

Environmental clearance surveys will be performed at the Project site prior to commencement of construction activities. The limits of construction disturbance areas delineated in the final approved engineering design packages will be surveyed and staked. Initial ground disturbing activities in preparation for construction will include installation of erosion and sediment control measures prior to start of major earthwork activities. Rough grading and grubbing/vegetation removal will be performed where required to accommodate site drainage and allow construction equipment to access the site. Detention chambers and stormwater facilities will be created for hydrologic control. The construction contractor will be required to incorporate applicable best management practices (BMPs) including the guidelines provided in the California Stormwater Quality Association's Construction BMP Handbook (CASQA 2024), as well as a soil erosion and sedimentation control plan to reduce potential impacts related to construction of the proposed Project. Stabilized construction entrances and exits will be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation will be consistent with applicable BMPs and the Antelope Valley Air Quality Management District's Fugitive Dust Rules. Site preparation will involve the removal and proper disposal of existing debris that will unduly interfere with Project construction or the health and safety of on-site personnel. Dust-minimizing techniques will be employed, such as placement of wind control fencing, application of water, and application of dust suppressants. All applicable governmental requirements and BMPs will be incorporated into the construction activities for the Project site.

Vegetation on the site will be removed where necessary to ensure the BESS facility is free from combustible vegetation to allow for fire protection and defensible space. Where feasible, in compliance with fire protection requirements, vegetation root mass within appropriate portions of the BESS facility lease area on the outside of the perimeter and substation access roads will be left in place for soil stabilization. However, the environmental analyses in subsequent sections conservatively assume that all areas within the maximum anticipated grading limits of the BESS facility will be permanently disturbed.

2.4.4 Site Grading and Civil Work

Following site preparation activities, grading and civil work will commence. Construction activities during this phase will include excavation and grading of the Project site. Preliminary designs conservatively assume that grading will include up to approximately 175,410 cubic yards (cy) of cut and up to approximately 625,095 cy of fill, resulting in a net of 449,685 cy of fill. Blasting is not expected but may be required if large boulders are encountered during excavation and grading. Fill material requirements will be satisfied by offsite borrow pits or quarries.

Conventional grading will be performed throughout the Project site but minimized to the maximum extent feasible to reduce unnecessary soil movement. Land-leveling equipment, such as a smooth steel drum roller, will be used to even the ground surface and compact the upper layer of soil to a value recommended by a geotechnical engineer for structural support. Following major civil work within the BESS facility site, site access roads and driveways, the perimeter and substation access roads, and interior roadways to access the laydown areas and BESS yards will be graded, compacted, and surfaced with gravel or paving. Once the roadways have been constructed, the Project perimeter fence and access gates will be constructed.

2.4.5 Foundations and Underground Equipment Installation

Following completion of major site grading and civil work, equipment foundations and below grade equipment will be installed. A grounding grid and underground conduit will be installed below grade beneath the Project substation area and BESS components. Typical ground grids consist of direct-buried copper conductors with copper-clad ground rods arranged in a grid pattern. After installation of the grounding grid, the area will be backfilled, compacted, and leveled followed by application of an aggregate rock base. A containment area within the MPT foundations will be sized to hold the full volume of oil within the MPTs. The MPT foundations within the substation area are anticipated to be concrete slab foundations poured into excavations up to 7 feet deep. Foundations for the control building, static masts, other aboveground substation equipment, O&M buildings, BESS enclosures, PCS units, DC/DC converters, and BESS auxiliary transformers and panels are anticipated to be slab on grade, or pile foundations embedded up to 24 feet below ground level. Depending on soil conditions, the piles may be drilled or driven and set with a slurry. However, some of these Project components may be installed on concrete slab foundations depending on the geotechnical conditions at the final locations.

Additional underground work will include trenching for the placement of underground electrical and communications lines, including the MV collection system, AC and DC cables, and fire alarm cable. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application

2.4.6 BESS and Project Substation Equipment Installation

Where possible, major equipment will be delivered directly to its permanent location and offloaded directly into place with a crane or heavy equipment. Where staging or sequencing does not allow, equipment will be stored at one of the laydown areas near its permanent location and installed at a later date. Major aboveground equipment will be the MPTs and other Project substation components, control building, BESS enclosures, PCS units, DC/DC converters, BESS auxiliary transformers and panels, and material for the O&M buildings.

Electrical work will include installing cables, terminations, and splices. Electrical wiring will be installed underground, at-grade, and above ground, depending on the application and location. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application.

2.4.7 Gen-Tie Structure Erection

Environmental clearance surveys will be performed within the gen-tie corridor prior to commencement of construction activities. The gen-tie corridor boundaries, gen-tie centerline, telecommunications route centerlines, and transmission structure access path will be surveyed and flagged. Initial activities will include the installation of erosion and sediment control measures and materials, and preparation of the transmission structure and fiber optic utility pole work areas. The transmission structure access path may be bladed, compacted, and surfaced with gravel where necessary to facilitate transmission structure deliveries and construction equipment access. The surface of the access path will be at-grade to allow water to sheet flow across the gen-tie corridor, as it currently does. Overland travel and temporary construction activities associated with the gen-tie and telecommunications facilities may occur anywhere within the 150-foot-wide transmission corridor. Vegetation at the transmission and fiber optic utility pole work areas will be trimmed, mowed, or removed. At locations where gen-tie line structures and fiber optic utility poles will be installed, minor cuts may be required where the foundation will be installed.

Cast-in-place concrete foundations will be installed by placing reinforcing steel and a structure stub or anchor bolt cage into the foundation hole, positioning the stub, and encasing it in concrete. Each transmission structure foundation will be set on anchor bolts on top of the foundation with cranes. Holes will be excavated using a truck-mounted drill rig or standalone auger rig. Poles will be delivered on a flat-bed trailer and hoisted into place with a crane. The annular space between the poles and holes will be backfilled with concrete or soil. Excavated spoil material not used for backfilling will be spread around the structure work areas.

2.4.8 Gen-Tie Stringing and Pulling

For a conductor pulling location, the distance needed behind the dead-end structures should be equal to or greater than a 3:1 ratio (300 feet needed for a 100-foot-tall structure), or as recommended by the conductor manufacturer, to mitigate potential damage to the conductor during installation. The width of the pulling area is consistent with the 150-foot-wide Gen-Tie corridor. The pulling area will need to be relatively flat since trucks, trailers and various other small vehicles will need room to maneuver for placement of materials and equipment. The area will be cleared of any brush or obstacles, to facilitate unobstructed travels. For the wire end of a pull, there will be a minimum of two (2) 53-foot-long semi-trailers side by side, loaded with three (3) conductor reels each. One (1) trailer will be

feeding the conductor to a tensioner, as the other trailer will be utilized for replacement of empty reels, and then facilitate a continuation of pulling efforts. The tensioner will be approximately the size of a semi-trailer and is responsible for tensioning the conductor during installation. A heavy-duty forklift or a large size all-terrain crane will be needed to support placement/removal of reels to the wire trailers, due to size and weight. After conductor installation, a bulldozer will be used to secure the installed conductors during application of additional tensions for the sagging process. The pulling equipment utilized is comparable in size/quantity to equipment utilized to support the new conductor reels. Pulling equipment utilizes multiple reels of high-tension pulling cables, mounted to semi-trailers, to support the new conductor placement into position on the structures. Pulling sites are depicted as Gen-Tie Work areas in Figure 2-2, Transmission Line Route.

A helicopter may be used to complete gen-tie stringing and pulling where the gen-tie crosses the railroad. For this portion of the stringing and pulling work it is assumed that a MD600 helicopter would be used for up to three (3) 10-hour days consisting of 1 day for mobilization, 1 day for stringing and pulling, and 1 day for demobilization. For the purposes of project analysis, it is anticipated that the helicopter would facilitate pulling of conductors and shield wires from proposed transmission structures No. 1 to No. 9 if the Northern Gen-Tie Route is selected, and transmission structures No. 3 to No. 5 if the Southern Gen-Tie Route is selected (please see Figure 2-2, Transmission Line Route, for transmission structure numbering). Helicopter use would be supported by one (1) approximately 150-foot by 100-foot landing zone. Landing zones would primarily be used for staging materials, picking up and transporting electrical personnel and equipment, and refueling helicopters. The landing zone is anticipated to be located at the main laydown area but may need to shift to one (1) of the other two (2) laydown areas depending on the sequencing of construction.

2.4.9 SCE-Owned Gen-Tie Segment and Interconnection Facilities within Vincent Substation Footprint

SCE will construct the segment of the gen-tie between the POCO and the POI within the SCE Vincent Substation, and the fiber optic routes between the POCO and the SCE control building within the Vincent Substation footprint. The Applicant will bring the fiber optic cables to underground pull boxes at the POCO structure, and SCE will install the segment of the fiber optic cables between the POCO and control building in conduit placed in underground trenches. The trenches are anticipated to be up to 4 feet wide, and the trenches for the redundant routes will need to be at least 25 feet apart to meet SCE's diverse path requirements. It is anticipated that SCE will install the trenches within the access road to the angled dead-end structure outside the Vincent Substation fence line. However, SCE may install the cables within existing roadways or other pre-disturbed areas along the perimeter of the substation fence depending on final design and routing.

SCE will also construct the interconnection upgrades within the Vincent Substation footprint at the POI. These upgrades are described in Section 2.3.2.4 above.

2.4.10 Construction Water Use

Construction water is anticipated to be purchased from a local water purveyor and trucked to the site. During construction, an estimated 18 million gallons (approximately 55 acre-feet) of untreated water will be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used during ingress and egress of on-site construction vehicle equipment traffic and during the construction of the Project. A sanitary water supply line will not be required during construction because restroom facilities will be portable units, serviced by licensed providers, and water and sewage from the restroom

facilities will be stored in on-site tanks and serviced by trucks. Drinking water will be provided via portable water coolers.

2.4.11 Solid and Non-hazardous Waste

The Project will produce a small amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation waste. This waste will be segregated, where practical, for recycling. Non-recyclable waste will be placed in covered dumpsters, located in project laydown areas, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III (non-hazardous waste) landfill.

2.4.12 Hazardous Materials

The hazardous materials used for construction will be typical of most construction Projects of this type. Materials may include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliatives, herbicides, and welding materials/supplies. A hazardous materials business plan will be prepared prior to commencement of construction activities. The hazardous materials business plan will include a complete list of all materials used on site and information regarding how the materials will be transported and in what form they will be used. This information will be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction, material safety data sheets for all applicable materials present at the site will be made readily available to on-site personnel.

2.4.13 Hazardous Waste

Small quantities of hazardous waste will most likely be generated over the course of construction. This waste may include waste paint, spent construction solvents, waste cleaners, waste oil, oily rags, waste batteries, and spent welding materials. Workers will be trained to properly identify and handle all hazardous materials. Hazardous waste will be either recycled or disposed of at a permitted and licensed treatment, recycling, or disposal facility in accordance with law. All hazardous waste shipped off site will be transported by a licensed hazardous waste hauler.

2.4.14 Commissioning

As part of Project construction activities, and after installation, equipment will be tested and commissioned. Commissioning work will be completed by qualified personnel, and in accordance with various codes, standards and specifications including IEEE, Institute of Electrical and Electronic Engineers, NEC National Electrical Code (NFPA 70), NETA International Electrical Testing Association, specific provisions of NFPA National Fire Protection Association, and the relevant OEM / manufacturers installation and commissioning manuals. Documentation necessary for commissioning will include (but is not limited to) complete sets of electrical plans, itemized equipment descriptions, control narratives, and other procedural requirement such as persons or entities to notify when equipment has become available for acceptance tests.

Commissioning will include testing of mechanical, electrical, fire protection, and other systems at substantial completion. Systems to be commissioned and tested include (but are not limited to) BESS enclosures, PCS units, auxiliar service transformers, MV collection system, DC cables, SCADA systems, power backup systems, and fire protection system. Performance testing will also be completed to ensure charge and discharge performance of the systems as designed and in accordance with the utility requirements. Full details of the commissioning activities

will be made available in a commissioning plan, prepared by the BESS supplier and construction contractor and reviewed by the Engineer of Record, as part of the construction documentation package.

2.5 Operations and Maintenance

Once constructed, the Project will be available to operate 7 days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider, by means of a NERC-CIP compliant remote operations center. Project operations will be monitored remotely through the SCADA system and by the Project's anticipated full-time operations staff members. It is estimated that there will be four (4) full-time staff members for remote monitoring and 16 full-time operations staff members on site.

On-site maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will visit the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance. Typically, one (1) major maintenance inspection will take place annually. Even when considering routine maintenance and augmentation activities, the project expects to provide no less than a 96% annual availability factor to the grid.

Batteries within utility-scale BESS facilities degrade with use over time, leading to a loss of capacity. To maintain the Project's capacity in compliance with interconnection requirements and commercial contracts, periodic augmentation by installing new batteries and related equipment within the Project site will occur to maintain the capacity over an approximate 40-year life. As batteries slowly lose their capacity to store energy, extra batteries will be installed at the beginning of the Project and at several intervals through the Project life, which is referred to as augmentation. Augmentation is expected to occur in order to maintain an annual lifetime capacity of 9,200MWh. If the project were to discharge for 8 hours daily and have an annual availability of 96% then the Project would have an annual capacity factor of approximately 32%. The Project's final augmentation strategy will be determined by market based contracting requirements. Augmentation may include constructing new foundations, installing BESS equipment on the foundations, and completing electrical work within the existing Project footprint. The preliminary site layout depicted on Figure 2-1, Project Site Plan, shows an "end of life" configuration, meaning it shows the equipment layout after all augmentation units are implemented. The construction sequencing and equipment usage assumptions in Tables 2-5 and 2-6 above, and environmental analyses in subsequent chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

2.5.1 Solid and Non-hazardous Waste

The Project will produce a small amount of waste associated with maintenance activities, which could include broken and rusted metal, defective or malfunctioning electrical materials, empty containers, and other miscellaneous solid waste, including typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste will be placed in covered dumpsters, located near the O&M buildings, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

2.5.2 Hazardous Materials

Limited amounts of hazardous materials will be stored or used on the site during operations, including diesel fuel, gasoline, and motor oil for vehicles; refrigerant within the BESS enclosures; mineral oil to be sealed within the transformers; and lead-acid-based batteries for emergency backup. Appropriate spill containment and cleanup kits will be maintained during operation of the Project. A spill prevention control and countermeasures plan will be developed for site operations.

2.5.3 Hazardous Waste

Fuels and lubricants used in operations will be subject to the spill prevention control and countermeasures plan to be prepared for the proposed Project. Solid waste, if generated during operations, will be subject to the material disposal and solid waste management plan to be prepared for the proposed Project.

2.6 Decommissioning

In general, the BESS will be recycled at the expiration of the Project's life (estimated to be 40 years). Most parts of the proposed system are recyclable. Batteries include lithium, which degrades but can be recycled or repurposed. Steel, wood, and concrete from the decommissioned facilities will be recycled. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Materials 3 feet or more below the ground surface will be left in place.

Fuel, hydraulic fluids, and oils will be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels will be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as smaller container lubricants, paints, thinners, solvents, cleaners, batteries, and sealants, will be kept in a locked utility structure with integral secondary containment that meets Certified Unified Program Agencies and Resource Conservation and Recovery Act requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries will be recycled at an appropriate facility. Site personnel involved in handling these materials will be trained to properly handle them. Containers used to store hazardous materials will be inspected regularly for any signs of failure or leakage. Additional procedures will be specified in a Hazardous Materials Business Plan closure plan submitted to the Certified Unified Program Agencies. Transportation of the removed hazardous materials will comply with regulations for transporting hazardous materials, including those set by the Department of Transportation, the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal. See Appendix F, Decommissioning Plan, for additional information.

2.7 Project Site Selection

The Project site and related facilities were selected taking into consideration engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, and electric transmission constraints, among other factors. The Project location was selected, in part, due to it being large enough to support development of the Project, its close proximity to existing electrical infrastructure and the Vincent Substation, thereby minimizing the length of the proposed gen-tie line to the POI and ability to deliver power to the Los Angels Basin local reliability area during peak demand, and because it is located immediately adjacent to existing roadways for construction and O&M access.

The Project is uniquely suited to help California achieve its GHG reduction requirements and support LA Basin reliability requirements. The Vincent substation is located at a key point in the electrical grid, Service Path 26, which enables it to deliver energy from renewable resources outside of the LA Basin Resource Area to meet LA Basin Local Capacity Requirements (LCR), with tie lines into the Western and Eastern LA Basin. LCR refers to the minimum amount of local generation capacity needed within specific areas to meet reliability criteria, particularly in areas where transmission constraints limit the ability to import power and is a critical metric for understand energy needs which are necessary to meet future grid demand. The LA Basin LCR is increasing, primarily due to load growth. The 2024-2025 Transmission Plan shows that peak load in the SCE Main area is forecasted to grow from 25,265MW in 2026 to 27,929MW in 2034 (CAISO 2025a), representing a 9.5% increase over 8 years. The 2026 LCR Tech Study also shows that the local capacity needed in the LA Basin is expected to increase from 5,812MW in 2026 to 7,226MW in 2030, which is an approximate 20% increase in required capacity in 4 years. Compared with the 2025 LCR study, demand for the LA Basin is 429MW higher than last year's forecast and the forecasted LCR needs have increased by 1,689MW due to load forecast increase (CAISO 2025b). In addition, CAISO is projecting that there will be a total potential curtailment of 1,300 gigawatt hours of wind and solar from the SCE North area in 2034, absent storage availability (CAISO 2025a). Locating this important energy storage ~~e~~ Project ~~at~~ with efficient and environmentally sound access to the Vincent Substation provides the Project with the ability to help reduce wind and solar curtailment while also supporting the growing LCR needs in the LA Basin, allowing stored resources to be dispatched when needed.

The Project site was selected in furtherance of the Project Objectives detailed in Section 2.2 above. The site selection criteria are discussed in detail in Chapter 4, Alternatives.

2.8 References

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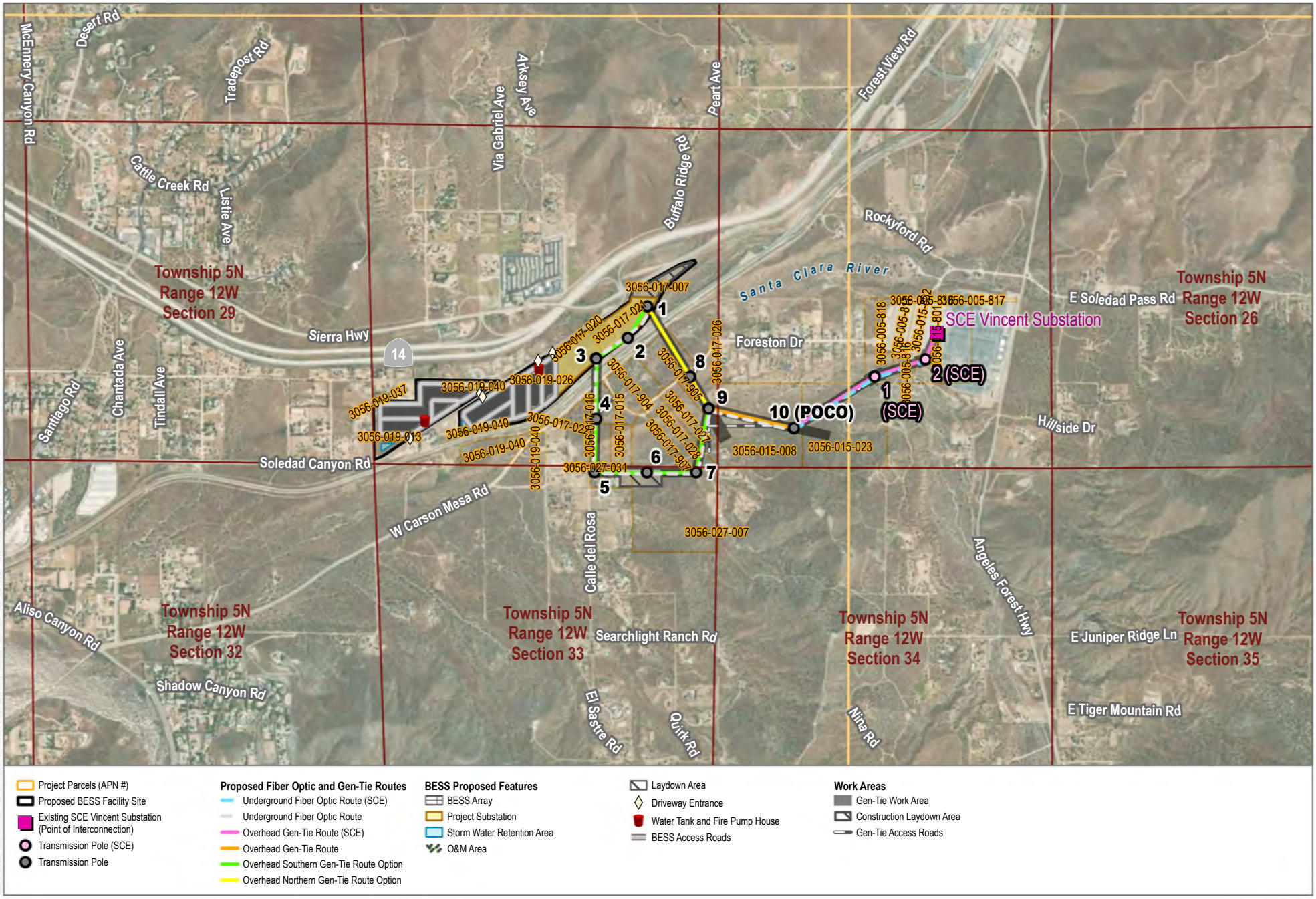

SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

DUDEK

0 500 1,000 Feet

FIGURE 2-1

Project Site Plan

Prairie Song Reliability Project

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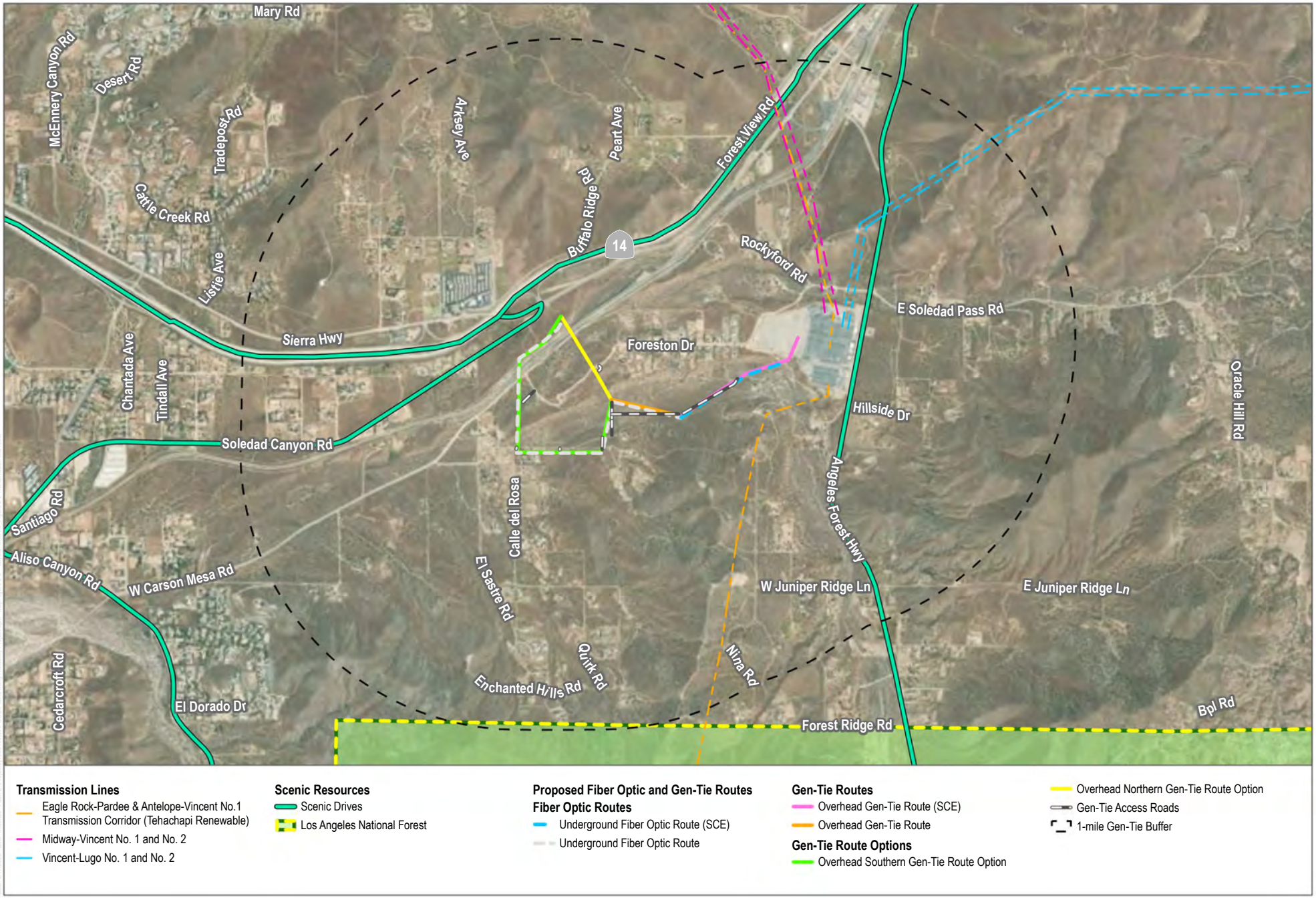

SOURCE: Los Angeles County; USFWS; CEC

DUDEK

0 1,000 2,000 Feet

FIGURE 2-2

Transmission Line Route

Prairie Song Reliability Project

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Attachment C .1

Targeted Project Description for the Streambed Alteration Application Package

DUDEK
225 SOUTH LAKE AVENUE
SUITE M210
PASADENA, CALIFORNIA 91101
T 626.204.9800

Prairie Song Reliability Project: Project Description for the Streambed Alteration Application Package

Prairie Song Reliability Project LLC, a Delaware limited liability company, a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt (MW) Prairie Song Reliability Project (Project) located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, an on-site Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE)-owned and operated Vincent Substation.

An Aquatic Resources Delineation was completed for the Project which identified nine (9) stream features, six (6) swales, and three (3) erosional features within the Review Area as shown in Figure 3, Jurisdictional Water Impact of Attachment B. The Review Area encompasses all areas of project site control as well as parcels owned by SCE that intersect the Vincent Substation. Additional details are available in the Project's Aquatic Resources Delineation Report (Attachment D to the Application for Streambed Alteration Agreement). As summarized in the table below, permanent and temporary impacts will occur to eight (8) features as a result of Project construction. Permanent impacts will occur from the construction of the BESS facility and from an access road to one of the gen-tie towers. Temporary impacts will be from the work areas for the gen-tie construction and restored following the completion of construction. Figure 3 within Attachment B depicts jurisdictional waters impacts by project component.

The Project's proposed grading and hydraulic structures will be designed to route off-site runoff through and around the site, maintain overall existing drainage patterns, and route on-site runoff to the proposed infiltration facilities. Water quality treatment and hydromodification requirements will be met through the use of infiltration chambers and trenches. Upstream off-site runoff will be diverted both around and through the Project site using culverts. The culverts will be sized to capture, at a minimum, the 100-year, 24-hour rain event. Large outfall velocities for the culverts routed through and around the BESS and substation sites will be minimized using energy dissipators and riprap. Engineers have evaluated the Project and determined the stormwater system can carry the 100-year storm flow and debris for the 100-year flow.

As a result, the proposed Project will not:

- substantially alter the existing drainage pattern of the BESS site;
- increase impervious surfaces in a manner that will result in substantial erosion or siltation on or off site;
- substantially increase the rate or amount of runoff that will result in flooding on or off site; or
- contribute runoff that will exceed the capacity of existing or planned stormwater drainage systems.

Potential stormwater drainage impacts from construction and operations will be less than significant.

None of the proposed gen-tie towers or pads are within streams. Portions of the proposed gen-tie line structures and access roads will be located within a 100-year flood zone; however, these components have a relatively

minimal aboveground profile and will have negligible effects related to impeding or redirecting flood flows. Stormwater runoff from the gen-tie pad areas will drain to infiltration ponds located at each pad. The new roads leading to the gen-tie pads will be gravel-surfaced and drain through perforated underdrains to the infiltration basin located at each of the gen-tie pads. Roads will be designed to be at or near grade. Based on the proposed design, no upstream ponding is expected from road construction or operations. The Project will not substantially impede or redirect 100-year flood flows.

Regulated Streams and Impact Summary for the Project

Feature Name	Total in Review Area (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Reason for Impact
Non-Wetland Waters (NWW)				
NWW-1a	0.09	0.09	–	BESS
NWW-1b	0.18	0.18	–	BESS
NWW-1c	0.06	0.02	–	BESS
NWW-1d	0.02	–	–	–
NWW-2	0.35	–	0.01	Gen-Tie Work Area*
NWW-3	0.14	–	–	–
NWW-4	0.02	–	–	–
NWW-5	1.36	0.01	0.31	Permanent: Gen-Tie Access Road Temporary: Gen-Tie Work Area*
NWW-6	0.14	–	–	–
NWW-7	0.77	–	–	–
NWW-8	0.18	–	–	–
NWW-9	0.03	0.03	–	BESS
Non-Wetlands Subtotal:	*3.34*	*0.33*	*0.32*	
Swales				
Swale-1	0.01	–	0.01	Gen-Tie Work Area*
Swale-2	0.04	–	–	–
Swale-3	0.06	–	0.01	Gen-Tie Work Area*
Swale-4	0.04	–	–	–
Swale-5	0.08	–	–	–
Swale-6	0.04	–	–	–
Swales Subtotal:	*0.27*	–	*0.01*	
Erosional Feature (EF)				
EF-1	0.03	–	–	–
EF-2	0.09	–	–	–
EF-3	0.03	–	–	–
EF-4	0.05	–	–	–
Erosional Feature Subtotal:	*0.20*	–	–	–
Grand Total	**3.80**	**0.33**	**0.33**	

Table Notes: totals may not sum due to rounding; BESS = Battery Energy Storage System.
* Temporary impact areas will be restored once construction is complete.

Attachment D

Aquatic Resources Delineation Report

DRAFT

Aquatic Resources Delineation Report

Prairie Song Reliability Project

OCTOBER 2025

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT, LLC
Contact: Garrett Lehman

Prepared by:

DUDEK

225 S. Lake Ave, Suite 225-M210
Pasadena, CA 91101
Contact: Michael Cady

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APT	Antecedent Precipitation Tool
ARC	antecedent runoff condition
ARDR	Aquatic Resources Delineation Report
CDFW	California Department of Fish and Wildlife
NWW	non-wetland water
OHWM	ordinary high-water mark
PDSI	Palmer Drought Severity Index
Project	Water Resources Operations & Maintenance Building Project
RWQCB	Regional Water Quality Control Board
SDAM	Streamflow Duration Assessment Method
USACE	U.S. Army Corps of Engineers
WET	wetland

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1 Introduction

This Aquatic Resources Delineation Report (ARDR) was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). This ARDR and supporting appendices provide the 20 items listed in the Minimum Standards. This report presents the results of the jurisdictional aquatic resource delineation conducted by Dudek staff for the Prairie Song Reliability Project (Project) in unincorporated Los Angeles County, California. The delineation was conducted to identify and map existing aquatic resources potentially subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (33 USC 1344), waters of the state potentially subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter–Cologne Water Quality Control Act, and stream and riparian habitats potentially subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code (collectively defined as jurisdictional aquatic resources).

1.1 Disclaimer Statement

This ARDR presents Dudek's best effort to quantify the extent of aquatic resources potentially regulated by USACE, RWQCB, and CDFW (i.e., regulatory agencies) within the identified Review Area using current regulations, written policies, and guidance from these regulatory agencies. The potential jurisdictional boundaries described in this ARDR are subject to verification by the regulatory agencies. Only the regulatory agencies can make a final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulation. A request for USACE Jurisdictional Determination is provided as Appendix A.[1]

1.2 Contact Information

Contact information for the project applicant and agent are provided in Table 1.[2] Access to the Review Area is not restricted, but if a site visit is requested, the project applicant or agent will accompany regulatory staff to the Review Area.[3] Prairie Song Reliability Project, LLC is the project applicant and landowner.

Table 1. Contact Information

Project Applicant	Prairie Song Reliability Project, LLC	**Agent**	Dudek
Contact Name	Garrett Lehman	**Contact Name**	Michael Cady
Address		**Address**	
Phone		**Phone**	
Email		**Email**	

1 Minimum Standards Item 1 (Request for Jurisdictional Determination)
2 Minimum Standards Item 2 (Contact Information)
3 Minimum Standards Item 3 (Site Access Statement)

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2 Review Area Description and Landscape Setting

The approximately 531-acre Review Area for the proposed Project is in unincorporated Los Angeles County, California, south of the Antelope Valley Freeway (State Route 14) approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Review Area is within the U.S. Geologic Survey 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the battery energy storage system (BESS) facility will occur on an area of land sandwiched between two existing transportation corridors, State Route 14 to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, which are approximately 1,200 feet apart. The Project will utilize one of two potential 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission lines to connect with the existing Southern California Edison (SCE) owned and operated Vincent Substation. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the point of interconnection at the Vincent Substation. The northern gen-tie route is approximately 1.1 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. (see Figure 1, Project Location).[4,5]

The site can be accessed from State Route 14 North by taking exit 27 and continuing straight on to Soledad Canyon Road. The BESS portion of the Review Area can be accessed from Soledad Canyon Road. To access the gen-tie portion of the Review Area, continue south on Soledad Canyon Road and take a left (east) onto Aliso Canyon Road and then a left (north) onto Carson Mesa Road. Stay on Carson Mesa Road to the intersection with Foreston Drive.[6]

2.1 Geology and Topography

The Project site is located within the Transverse Ranges Geomorphic Province. The Transverse Ranges are characterized by an east-west trending series of steep mountain ranges and valleys (CGS 2002). The east-west structure of the Transverse Ranges is oblique to the normal northwest trend of coastal California, hence the name "Transverse." The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. Its eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault. Intense north-south compression by tectonic forces is squeezing the Transverse Ranges. As a result, this is one of the most rapidly rising regions on earth. Great thicknesses of Cenozoic (younger than 66 million years old) petroleum-rich sedimentary rocks have been folded and faulted, making this one of the important oil producing areas in the United States.

4 Minimum Standards Item 10 (Description of Existing Field Conditions)
5 Minimum Standard Item 14 (Site Location Map)
6 Minimum Standards Item 4 (Directions)

The proposed BESS facility site portion of the Review Area has an approximately 4% slope increasing from the southwest to the northeast direction. The approximate elevations of the BESS facility site range from 2,980 to 3,140 feet. The proposed gen-tie route portions of the Review Area traverse flat terrains and rolling hill topographies. The elevation at the proposed Gen-Tie structures ranges from 3,010 to 3,125 feet.

2.2 Soils

Five soil units in four soil series and one land type have been mapped in the Review Area and are described below (USDA 2024a) [7]: Greenfield sandy loam, 2 to 9 percent slopes; Hanford coarse sandy loam, 0 to 2 percent slopes; Hanford coarse sandy loam, 9 to 15 percent slopes; Hanford sandy loam, 2 to 9 percent slopes; Terrace escarpments; and Vista coarse sandy loam, 30 to 50 percent slopes. Soil types within the Review Area are shown Figure 2, Soils. Only Hanford coarse sandy loam, 0 to 2 percent slopes has been determined to be hydric (USDA 2025b).

Greenfield Series: The Greenfield series consists of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils are on alluvial fans and terraces and have slopes of 0 to 30 percent. The soils are well drained, with slow to medium runoff and moderately rapid permeability. Vegetation typically consists of annual grass, forbs, some shrubs, and scattered oak trees.

Hanford Series: The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. The soils are well drained, with negligible to low runoff and moderately rapid permeability. Vegetation typically consists of annual grasses and associated herbaceous plants.

Terrace Escarpments: Terrace escarpments are short, moderately steep to steep faces or breaks that separate the terraces from the lower-lying alluvial fans. Slopes range from 15 to 45 percent. Runoff is medium to rapid, and the hazard of erosion is moderate to high. The surface is generally coarse sandy loam and vegetation typically consists of annual grasses and forbs.

Vista Series: The Vista series consists of moderately deep, well drained soils that formed in material weathered from decomposed granitic rocks. Vista soils are on hills and mountainous uplands and have slopes of 2 to 85 percent. The soils are well drained, with slow to rapid runoff and moderately rapid permeability. Vegetation typically consists of annual grass and forbs and shrubs.

2.3 Vegetation

Vegetation communities and land uses within the Study Area were mapped in the field using the Environmental Systems Research Institute (Esri) Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined. Vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California

[7] Minimum Standards Item 13 (Soil Descriptions)

Vegetation, Online Edition (CNPS 2025), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible.

Table 2. Vegetation Communities and Land Covers in the Review Area

Alliance	Association	Acres
Native Communities		
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	0.82
	Ambrosia salsola Association	3.99
Fiddleneck - phacelia fields	*Amsinckia menziesii - Erodium* spp.	2.25
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	15.40
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	18.64
	Artemisia tridentata - Eriogonum fasciculatum	3.98
	Artemisia tridentata	0.58
	Artemisia tridentata ssp. *parishii*	8.58
Fourwing saltbush scrub	*Atriplex canescens*	94.03
Mormon tea scrub	*Ephedra viridis*	23.92
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	20.06
	Ericameria nauseosa	8.87
California buckwheat scrub	*Eriogonum fasciculatum*	12.40
	Eriogonum fasciculatum var. *foliolosum - Juniperus californica*	5.24
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	4.28
California walnut groves	*Juglans californica / annual herbaceous*	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	34.77
	Juniperus californica / herbaceous	126.21
	Juniperus californica / Eriogonum fasciculatum - Artemisia californica	0.48
	Subtotal	*385.39*
Naturalized (Non-Native)		
Avena spp. – *Bromus* spp.	*Avena barbata - Bromus hordeaceus*	3.28
Bromus rubens – *Schismus* (*arabicus*, *barbatus*)	*Bromus rubens* - mixed herbs	3.17
	Subtotal:	*6.45*
Land Cover Types		
Disturbed habitat	Not applicable	30.72
Urban/Developed	Not applicable	108.14
	Subtotal:	*138.86*
	Total:	**530.71**

Notes: Totals may not sum due to rounding.

2.4 Watershed

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California, and travels through two counites, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023; USCR IRWMP 2014).

2.5 Climate

The Review Area is near the interface of the San Gabriel Mountains and the Mojave Desert, as such it has an arid climate that averages 10.42 inches of rain annually (WRCC 2025). The hot season is from mid-March to mid-November, with an average daily high temperature above 85°F. The cool season lasts from mid-November to mid-March, with an average daily high temperature below 63°F.

2.6 Review Area Alterations, Current and Past Land Use

Land uses in the immediate vicinity of the Review Area include undeveloped and rural lands, multiple high-voltage transmission lines, an electrical substation, paved and rural roads, State Route 14, and railroad lines. There are a few single-family residences adjacent to the BESS site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line routes.

3 Investigation Methods[8]

This chapter describes the investigation methods for this jurisdictional delineation conducted by Dudek biologists Eilleen Salas (2023: January 6, 11, 23 and February 12 and 19; 2024: November 18; 2025: August 30) and Tracy Park (2024: November 19 and December 7)[9]. Prior to conducting the jurisdictional delineation, U.S. Fish and Wildlife Service's National Wetlands Inventory data (USFWS 2024) was reviewed to determine if the Review Area contains any features mapped by the U.S. Fish and Wildlife Service. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Review Area supports hydrophytic vegetation and potential wetlands. No wetland or riparian vegetation communities were mapped in the Review Area. Jurisdictional boundaries were mapped in the field using ESRI Collector on a mobile device. Remote sensing was not used for the delineation.[10]

3.1 U.S. Army Corps of Engineers

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on topographical maps in conjunction with ESRI Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM Manual.[11]

Wetland Determination Forms were completed for certain points within drainages or vegetation communities where a predominance of hydrophytic vegetation was present; hydrology, vegetation, and soils were assessed to determine whether USACE three-parameter wetlands were present. USACE OHWM Forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths. All data forms can be found in Appendix B.[12]

3.2 Regional Water Quality Control Board

Wetland waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters were delineated to the top of bank and are concurrent with CDFW jurisdictional limits.

8 Minimum Standards Item 19 (Methods)
9 Minimum Standards Item 8 (Dates of Field Work)
10 Minimum Standards Item 12 (Statement Regarding Use of Remote Sensing)
11 Minimum Standards Item 5 (Use of 1987 Manual, Regional Supplement, and OHWM guide)
12 Minimum Standards Item 18 (Data Forms)

3.3 California Department of Fish and Wildlife

CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

4 Aquatic Resource Narrative

This chapter describes the aquatic resources that occur in the Review Area.[13] Nine stream features, six swales, and three erosional features were delineated within the Review Area.

4.1 Waters of the United States (USACE)

Approximately 3.09 acres of non-wetland waters potentially regulated by USACE are present in the Review Area (Figure 4, Potential Jurisdictional Aquatic Resources).[14] Table 5 provides a detailed summary of aquatic resources delineated within the Review Area. Table 3 includes descriptions of the features identified within the Review Area; Cowardin type, if available (Cowardin et al. 1979; USACE 2024b); any OHWM indicators present; location; and acreage/linear feet.[15] A copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is not submitted with this ARDR because Table 5 provides all of the information requested.[16] Photos of the potential aquatic features delineated within the Review Area and additional areas reviewed for the presence of these resources are provided in Appendix C.[17] The locations of these photos are shown in Figure 4 and Appendix D, Mapbook.

Table 3. USACE Aquatic Resource Summary for the Review Area

Feature Name	Cowardin Code[1]	OHWM Indicators	Location (Latitude/Longitude; Decimal Degrees)	Acres	Linear Feet
Non-Wetland Waters					
NWW-1a	Not Mapped	BBS, CVC	34.483209°, -118.143593°	0.08	498
NWW-1b	R4SBA	BBS, CVC	34.483824°, -118.141114°	0.17	1,782
NWW-1c	R4SBA	BBS, CVC	34.482575°, -118.143315°	0.05	457
NWW-1d	Not Mapped	BBS, CVC	34.484208°, -118.143470°	0.02	236
NWW-2	R4SBA	BBS, CVC	34.483081°, -118.138260°	0.30	2,615
NWW-3	Not Mapped	BBS, CVC	34.484381°, -118.136232°	0.07	1,050
NWW-4	Not Mapped	BBS, CVC	34.485641°, -118.134995°	0.02	783
NWW-5	R4SBA	BBS, CVC	34.482206°, -118.127602°	1.47	5,503
NWW-6	R4SBC	BBS, CVC	34.478606°, -118.135623°	0.14	761
NWW-7	R4SBA	BBS, CVC	34.488883°, -118.120250°	0.77	1,818
NWW-8	Not Mapped	BBS, CVC	34.482193°, -118.124414°	0.18	1,022
NWW-9	R4SBC	BBS, CVC	34.489469°, -118.133062°	0.03	145
			Grand Total	**3.34**	**17,266**

Notes: Totals may not sum due to rounding; USACE = U.S. Army Corps of Engineers; OHWM = ordinary high-water mark; NWW = non-wetland water; N/A = not applicable; BBS = break in bank slope; CVC = change in vegetation cover

1 Pursuant to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979) and USACE Cowardin Codes for ORM Data Entry (USACE 2024b).

13 Minimum Standards Item 6 (Aquatic Resource Narrative)
14 Minimum Standards Item 7 and Item 16 (Delineation Maps)
15 Minimum Standards Item 9 (Table Listing All Aquatic Resources)
16 Minimum Standards Item 15 (ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet)
17 Minimum Standards Item 17 (Ground Photos)

NWW-1a

NWW-1a is located within the BESS portion of the Review Area and its headwaters are located to the north of SR 14 and conveyed beneath the highway via culverts. Waters conveyed by the feature enter the Review Area from a culvert beneath Soledad Canyon Road. NWW-1a merges with NWW-1b in the Review Area to become NWW-1c. NWW-1c becomes undefined to the southwest of the Review Area. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are *Atriplex canescens* Association and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-1b

NWW-1b is located entirely within the BESS portion of the Review Area. The feature merges with NWW-1a in the Review Area to become NWW-1c. NWW-1c becomes undefined to the southwest of the Review Area. NWW-1b has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil type associated with the feature is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are *Atriplex canescens* Association, *Ephedra viridis* Association, *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association, and *Juniperus californica /* herbaceous Association.

NWW-1c

NWW-1c is formed from waters from NWW-1a and NWW-1b and it exits the Review Area shortly after the merger. The feature goes beneath the railroad tracks to the south via a culvert and waters are then conveyed on a maintained dirt road before reentering the Review Area. NWW-1c becomes undefined to the southwest of the Review Area. The feature has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil types associated with NWW-1c are Greenfield sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are Artemisia *tridentata - Ericameria* nauseosa Association, *Atriplex canescens* Association, and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-1d

NWW-1d is within the BESS and is formed from waters that flow off of Soledad Canyon Road and the developed properties north of Soledad Canyon Road. NWW-1d connects with NWW-1a at the Project boundary at Soledad Canyon Road. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes. The associated vegetation community is *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-2

NWW-2 is found in the gen-tie portion of the Review Area. Its headwaters are located less than three miles to the east-northeast of the Review Area in the upper Soledad Canyon. NWW-2 has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The feature loses a defined OHWM downstream of the Review Area at the intersection of Carson Mesa Road and Searchlight Ranch Road and does not connect with the Santa Clara River. The soil type3 associated with NWW-2 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Atriplex canescens* Association, *Ericameria nauseosa - Juniperus californica /* herb Association,

Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association, and *Juniperus californica* / herbaceous Association.

NWW-3

NWW-3 is found entirely within the gen-tie portion of the Review Area. The feature loses it defined OWHM at a maintained dirt road. The soil type associated with NWW-3 is Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Ericameria nauseosa - Juniperus californica* / herb Association and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association, and *Juniperus californica* / herbaceous Association.

NWW-4

NWW-4 is found entirely within the gen-tie portion of the Review Area. The feature loses it defined OWHM within the Review Area. The soil type associated with NWW-4 is Hanford coarse sandy loam, 2 to 9 percent slopes. The associated vegetation community is *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-5

NWW-5 is the main drainage feature of Kentucky Springs Canyon and is within the gen-tie portion of the Review Area. The feature loses its defined OHWM to the west of the Review Area at a residential/equestrian property but then has a defined OHWM between that property and Carson Mesa Road. It is expected that waters from NWW-5 flow across Carson Mesa Road and into NWW-2. NWW-5 has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil types associated with NWW-5 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Artemisia tridentata* Association, *Atriplex canescens* Association and *Juniperus californica* / herbaceous Association.

NWW-6

NWW-6 is found entirely within the gen-tie portion of the Review Area. The feature loses its defined OHWM to the at a residential/equestrian property adjacent to the Review Area. NWW-6 has been classified as R4SBC, which means it is a riverine feature that is intermittent and has a streambed that is seasonally flooded. The soil types associated with NWW-6 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation community is *Juniperus californica* / herbaceous Association.

NWW-7

NWW-7 is found in the portion of the Review Area north of the Vincent Substation and is an upstream portion of NWW-2. The soil types associated with the feature are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Artemisia tridentata - Ericameria nauseosa Association*, *Artemisia tridentata* ssp. *parishii* Association, and *Ericameria nauseosa* Association.

NWW-8

NWW-8 is found in the southeast portion of the Review Area and within the gen-tie portion of the Review Area. The water source is from water flowing off an existing transmission line road and through NWW-8 into NWW-5. The soil types associated with the feature are Terrace escarpments; Hanford coarse sandy loam, 2 to 9 percent slopes; Vista coarse sandy loam, 30 to 50 percent slopes; and Hanford coarse sandy loam, 0 to 2 percent slopes. The associated vegetation communities are *Juniperus californica* / herbaceous Association and *Atriplex canescens* Association.

NWW-9

NWW-9 passes through the northeastern corner of the BESS portion of the Review Area. Its headwater are located north of SR-14 and waters are conveyed beneath SR-14 and Sierra Highway via culverts. NWW-9 continues to the south of the BESS site and joins with a stream outside of the Review Area between Sierra Highway and the railroad tracks. This feature then appears to lose its definition along the railroad track. The soil types associated with the feature are Terrace escarpments and Hanford coarse sandy loam, 9 to 15 percent slopes. The associated vegetation communities are *Eriogonum fasciculatum* Association and *Ephedra viridis* Association.

4.2 Waters of the State (RWQCB)

All the features described in Section 4.1, Waters of the United States, have been identified as waters of the state. These features are subject to regulation by the RWQCB under the Porter–Cologne Water Quality Control Act. In addition, six swales (not displaying OHWM indicators but potentially carrying sheet flows across the landscape due to topographic relief) and three erosional features were mapped in the gen-tie portion of the Review area and are subject to regulation by the RWQCB). These swales and erosional are excluded from potential USACE jurisdiction due to their lack of OHWM indicators. Table 4 lists all features within the Review Area that are subject to RWQCB regulation and are shown on Figure 5, Potential Jurisdictional Aquatic Resources – RWQCB/CDFW, and Appendix D.

Table 4. RWQCB Aquatic Resource Summary for the Review Area

Feature Name	Location (Latitude/Longitude; Decimal Degrees)	Acreage	Linear Feet
Non-Wetland Waters (NWW)			
NWW-1a	34.483209°, -118.143593°	0.09	498
NWW-1b	34.483824°, -118.141114°	0.18	1,782
NWW-1c	34.482575°, -118.143315°	0.06	457
NWW-1d	34.484208°, -118.143470°	0.02	236
NWW-2	34.483081°, -118.138260°	0.35	2,615
NWW-3	34.484381°, -118.136232°	0.14	1,050
NWW-4	34.485641°, -118.134995°	0.02	783
NWW-5	34.482206°, -118.127602°	1.36	5,503
NWW-6	34.478606°, -118.135623°	0.14	761
NWW-7	34.488883°, -118.120250°	0.77	1,818
NWW-8	34.482193°, -118.124414°	0.18	1,022

Table 4. RWQCB Aquatic Resource Summary for the Review Area

Feature Name	Location (Latitude/Longitude; Decimal Degrees)	Acreage	Linear Feet
NWW-9	34.489469°, -118.133062°	0.03	145
	Non-Wetlands Subtotal:	*3.34*	*17,266*
Swales			
Swale-1	34.483790°, -118.137852°	0.01	323
Swale-2	34.481982°, -118.134586°	0.04	628
Swale-3	34.483361°, -118.129572°	0.06	1,339
Swale-4	34.482888°, -118.128773°	0.04	283
Swale-5	34.483666°, -118.127604°	0.08	355
Swale-6	34.483388°, -118.126555°	0.04	167
	Swales Subtotal:	*0.27*	*2,753*
Erosional Feature (EF)			
EF-1	34.483730°, -118.135892°	0.03	283
EF-2	34.484118°, -118.135162°	0.09	368
EF-3	34.485159°, -118.133296°	0.03	167
EF-4	34.484484°, -118.134687°	0.05	495
	Erosional Feature Subtotal:	*0.20*	*1,322*
	Grand Total	**3.80**	**21,341**

Notes: Totals may not sum due to rounding RWQCB = Regional Water Quality Control Board; NWW = non-wetland water.

Swales

Six swale features were observed in various locations within the Review Area. These swales are characterized by unvegetated soils that lack bed and bank topography or a continuous defined OWHM and did not have connectivity with any non-wetland water features. Thus, these features are determined to not be potential waters of the U.S. but could be considered waters of the state.

Erosional Features

Four erosional features were observed alongside existing gravel access road. These areas contained a more defined bed and bank; however, areas "upstream and/or downstream" were evaluated and showed no evidence of an OHWM. It was determined that these features were not natural drainages, but, rather, were created artificially due to erosion from waters flowing off the existing dirt road. Thus, the features were determined to not be potential waters of the U.S. but could be considered waters of the state.

4.3 CDFW Jurisdiction

All the features described in Section 4.1 were identified as streambeds potentially regulated by CDFW. In addition, the six swales and four erosional features in the Review Area described in Section 4.2 are also potentially regulated by CDFW. These areas are shown in Figure 5 and Appendix D.

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5 Conclusions

Based on the jurisdictional delineation and review of relevant information provided in this ARDR, 3.09 acres of non-wetland waters potentially regulated by USACE were delineated within the Review Area. However, the features in the area have no downstream connectivity with relatively permanent water or traditional navigable water. Additionally, the features are ephemeral features that only have water flowing during and briefly following storm events. The delineation of NWW-2 on January 11, 2023 was conducted the day after a 2.38-inch rain event and no water was flowing through the feature. The non-wetland waters may also be regulated by the RWQCB, CDFW, and CEC.

This ARDR can be used by the regulatory agencies to determine if they would regulate the features described herein. The GIS data for the delineation can be provided digitally. [18]

[18] Minimum Standards Item 20 (Digital Data)

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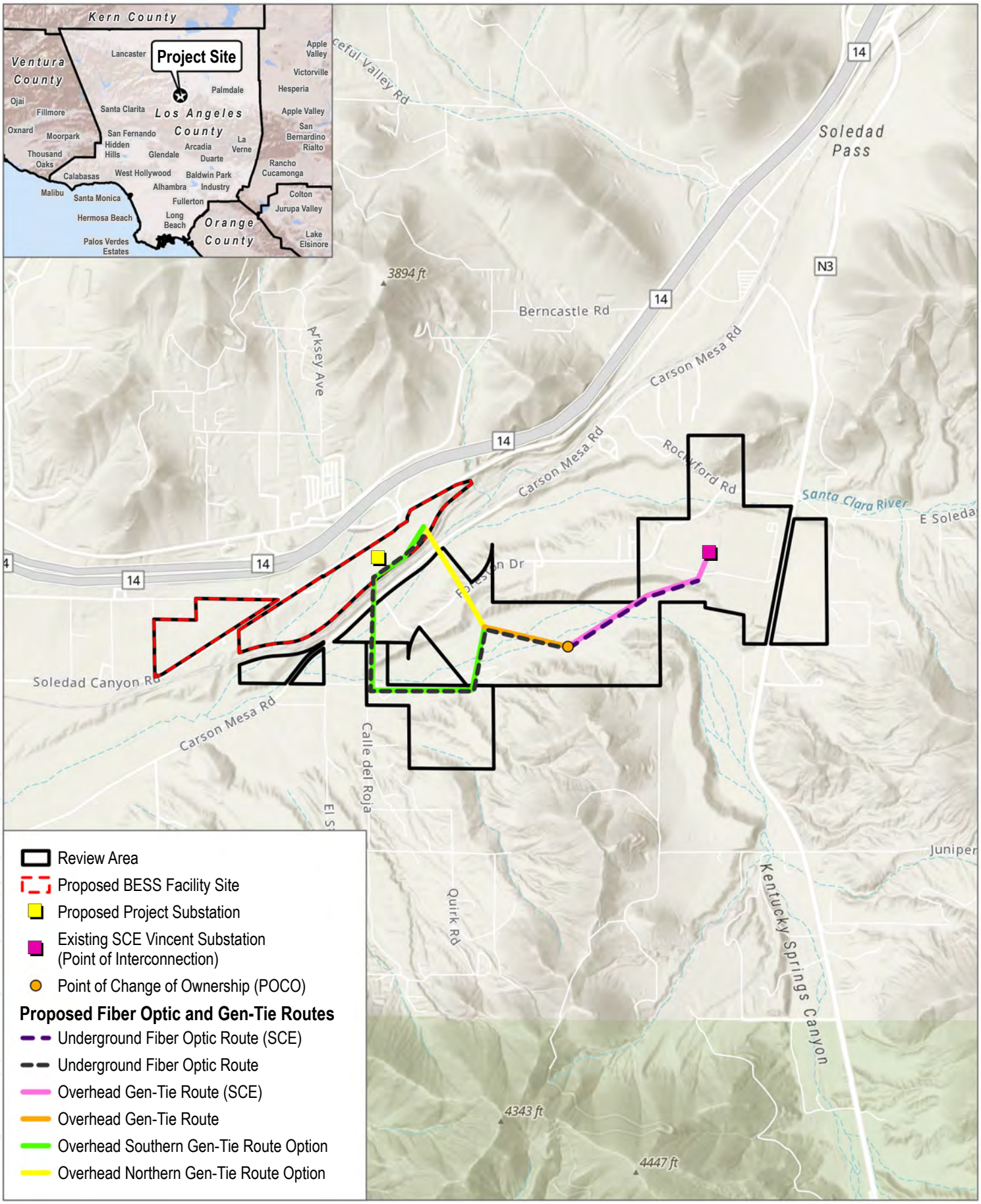

SOURCE: World Topographic

DUDEK

0 1,100 2,200 Feet

FIGURE 1

Regional Map

Prairie Song Reliability Project

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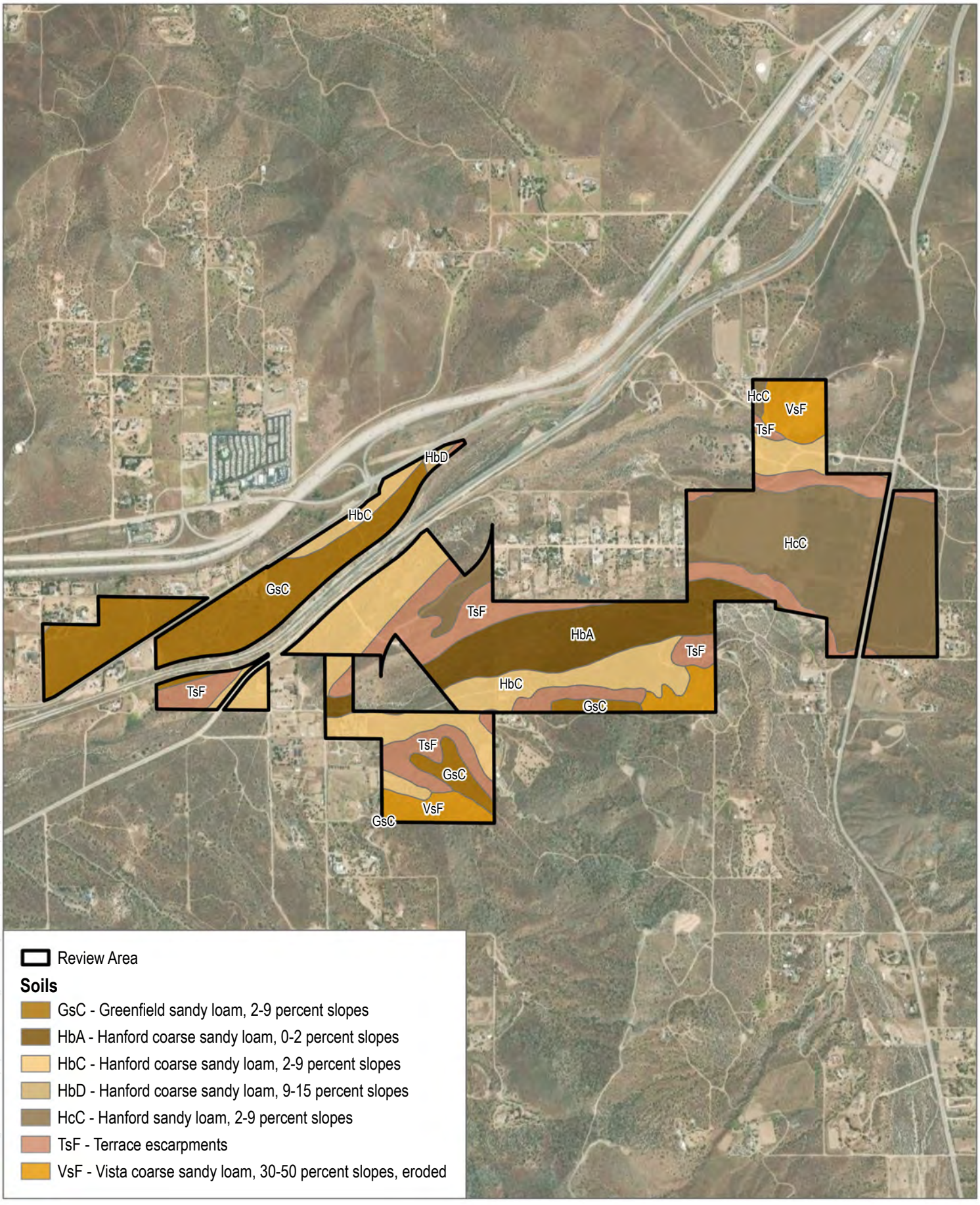

SOURCE: World Imagery; USDA

DUDEK

0 750 1,500 Feet

FIGURE 2

Soils

Prairie Song Reliability Project

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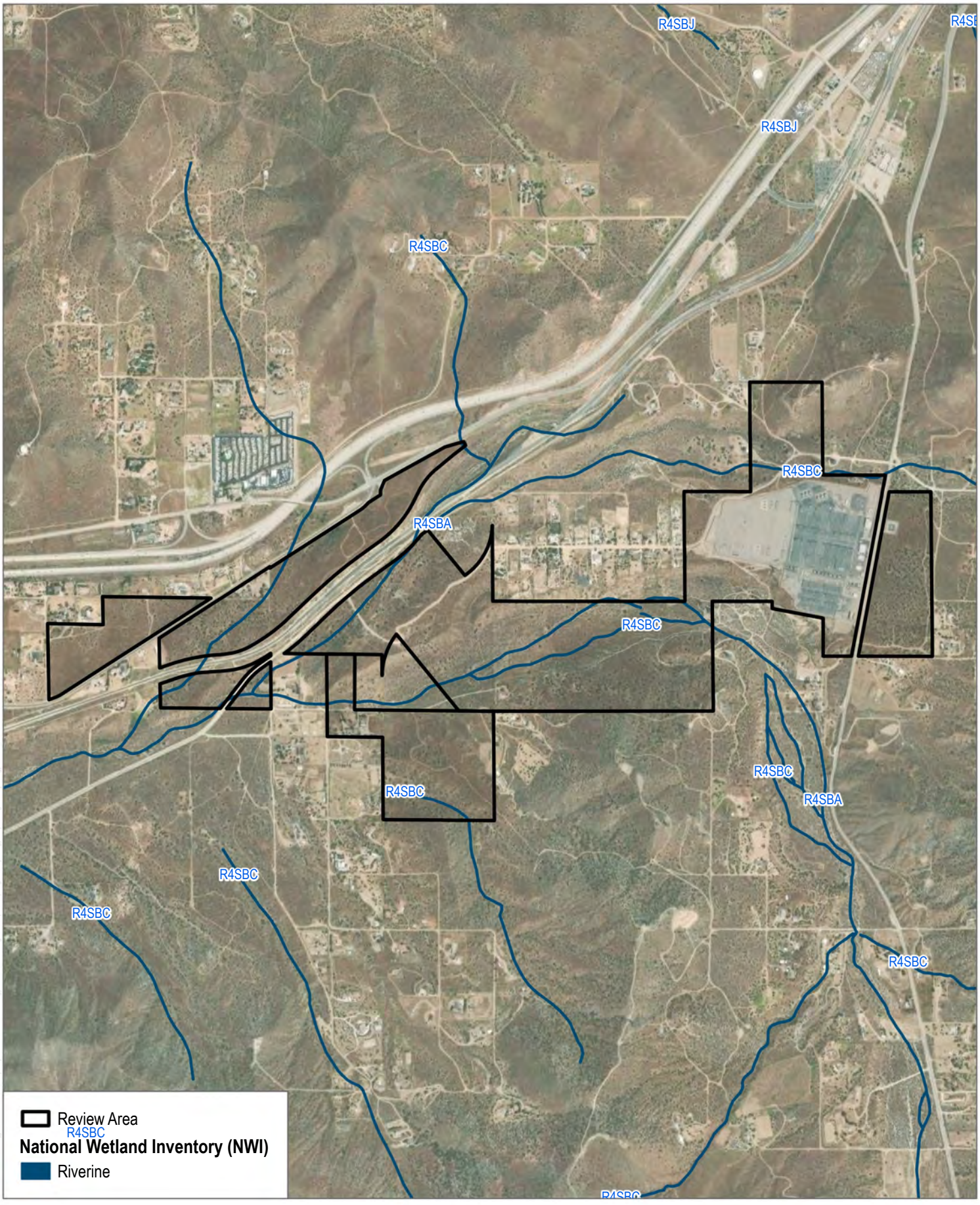

SOURCE: World Imagery; USFWS

DUDEK

0 750 1,500 Feet

FIGURE 3

Hydrology

Prairie Song Reliability Project

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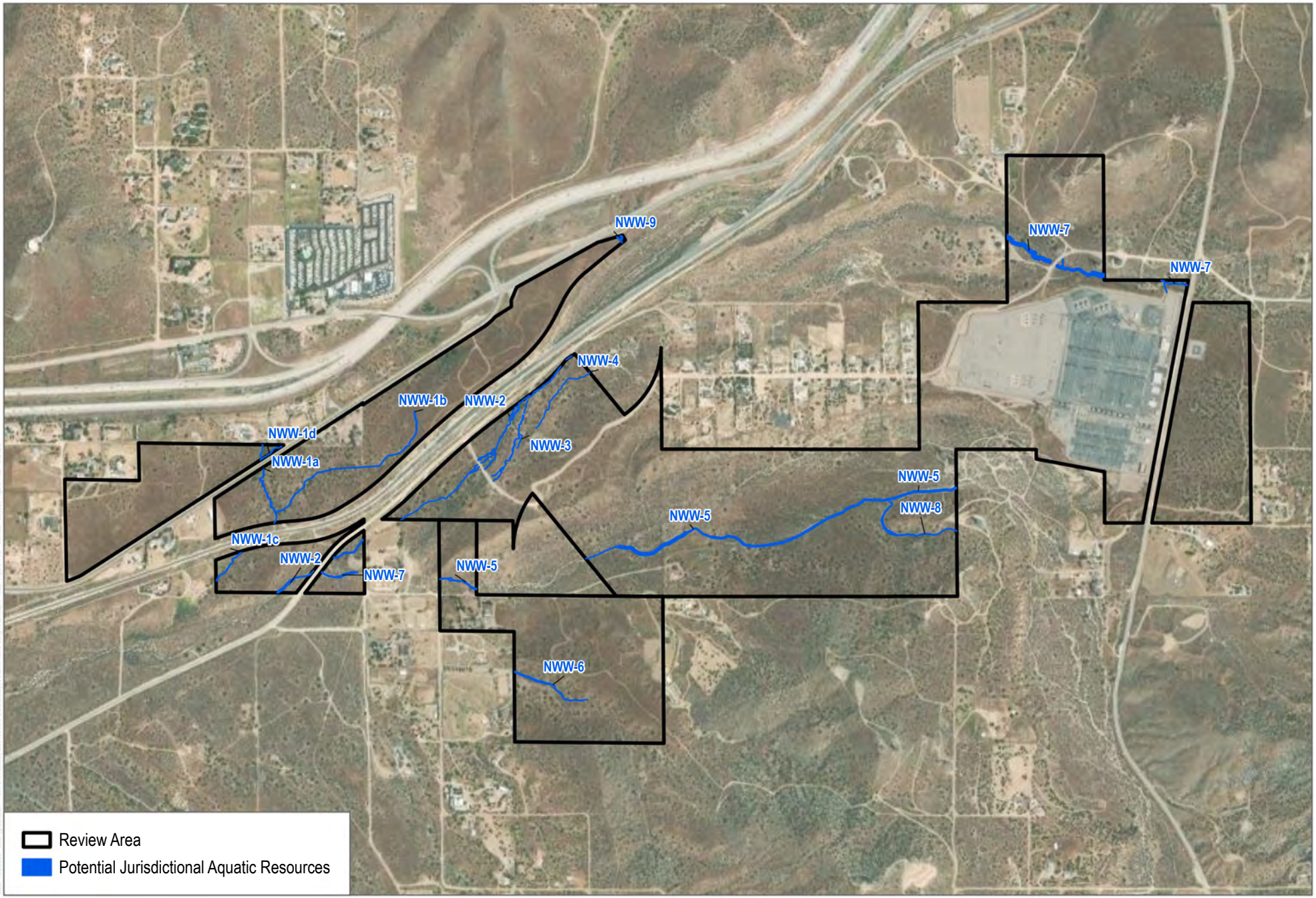

SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 4

JD - USACE

Prairie Song Reliability Project

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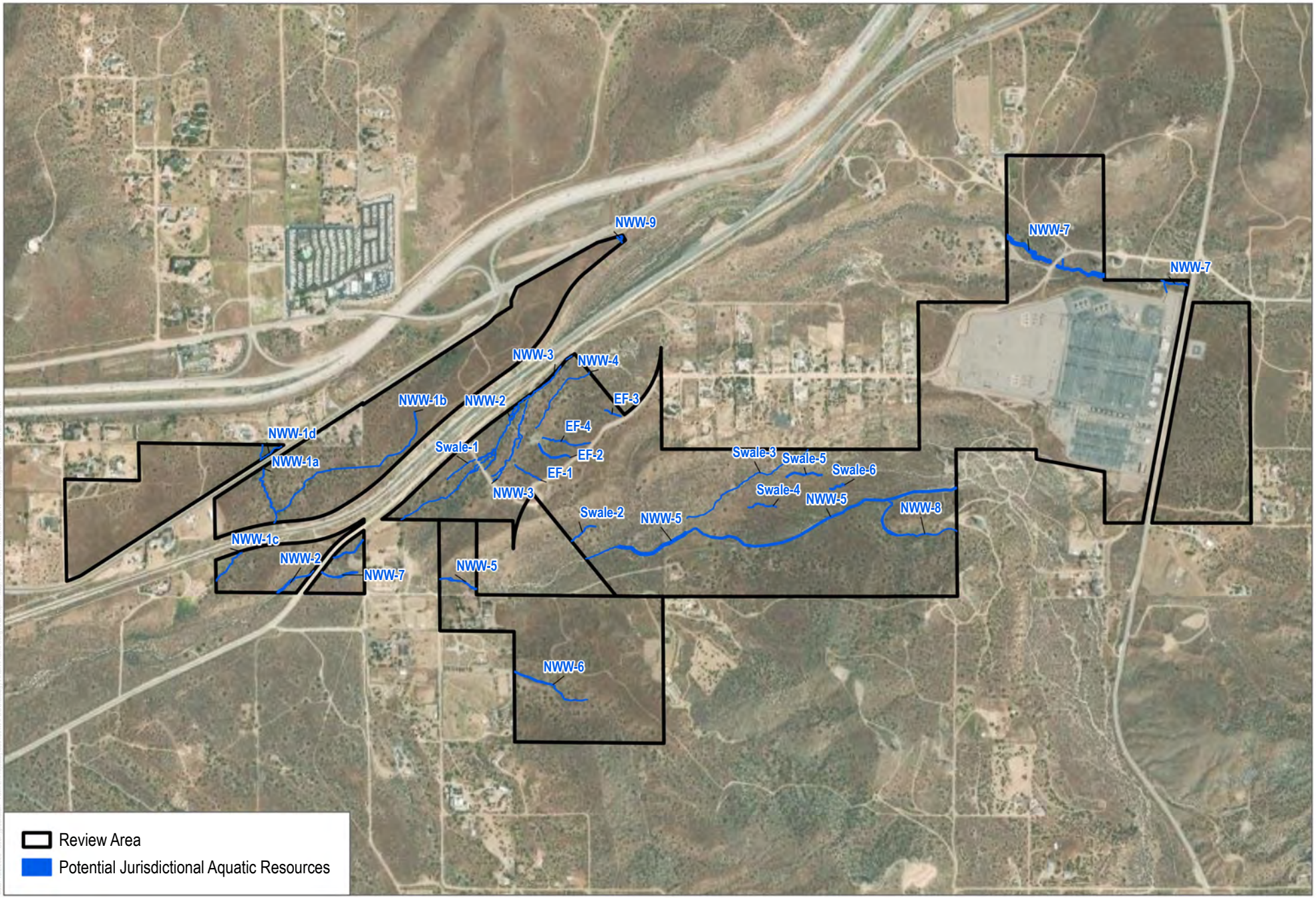

SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 5

JD - RWQCB/CDFW

Prairie Song Reliability Project

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Appendix A

Request for a Jurisdictional Determination

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: _____
  (Street Address)
  City/Township/Parish: Acton County: Los Angeles State: CA
  Acreage of Parcel/Review Area for JD: _____
  Section: _____ Township: _____ Range: _____
  Latitude (decimal degrees):_____ Longitude (decimal degrees): _____
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ___ I plan to purchase this property.
  ☑ I am an agent/consultant acting on behalf of the requestor.
  ☐ Other (please explain): _____.
- Reason for request: (check as many as applicable)
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ☐ A Corps JD is required in order to obtain my local/state authorization.
  ☑ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ☐ I believe that the site may be comprised entirely of dry land.
  ☐ Other: _____
- Type of determination being requested:
  ☑ I am requesting an approved JD.
  ☐ I am requesting a preliminary JD.
  ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: Michael Cady
  Company name: Dudek
  Address: 225 S Lake Ave Suite 225-M210,
  Pasadena, CA 91101
  Daytime phone no.: 626 204 9841
  Email address: mcady@dudek.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Appendix B
Data Forms

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

OMB Control No. 0710-XXXX

Approval Expires:

Project ID #: NWW-1a	Site Name: Prairie Song Reliability Project	Date and Time: 1/6/2023
Location (lat/long): 34.483209°, -118.143593°	Investigator(s): Max Murray	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- ☐ gage data
- ☐ LiDAR
- ☐ geologic maps
- ☐ climatic data
- ☒ satellite imagery
- ☐ land use maps
- ☒ aerial photos
- ☒ topographic maps
- ☐ Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

No recent floods or droughts. The area is natural open space.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Waters conveyed by the feature enter the Review Area from a culvert beneath Soledad Canyon Road. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are Atriplex canescens Association and Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- ☒ **Break in slope:** x
  - ☒ *on the bank:* x
  - ☐ *undercut bank:*
  - ☐ *valley bottom:*
  - ☐ Other: _____
- ☐ **Shelving:**
  - ☐ *shelf at top of bank:*
  - ☐ *natural levee:*
  - ☐ *man-made berms or levees:*
  - ☐ *other berms:* _____
- ☐ **Channel bar:**
  - ☐ *shelving (berms) on bar:*
  - ☐ *unvegetated:*
  - ☐ *vegetation transition (go to veg. indicators)*
  - ☐ *sediment transition (go to sed. indicators)*
  - ☐ *upper limit of deposition on bar:*
- ☐ **Instream bedforms and other bedload transport evidence:**
  - ☐ *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - ☐ *bedforms (e.g., poofs, riffles, steps, etc.):*
  - ☐ *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- ☐ **Secondary channels:**

Sediment indicators

- ☐ **Soil development:**
- ☐ **Changes in character of soil:**
- ☐ **Mudcracks:**
- ☐ **Changes in particle-sized distribution:**
  - ☐ *transition from* _____ to _____
  - ☐ *upper limit of sand-sized particles*
  - ☐ *silt deposits:*

Vegetation Indicators

- ☒ **Change in vegetation type and/or density:** x

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***
  - ☒ *vegetation absent to:* woody shrubs
  - ☐ *moss to:*
  - ☐ *forbs to:*
  - ☐ *graminoids to:*
  - ☐ *woody shrubs to:*
  - ☐ *deciduous trees to:*
  - ☐ *coniferous trees to:*
- ☐ **Vegetation matted down and/or bent:**
- ☐ **Exposed roots below intact soil layer:**

Ancillary indicators

- ☐ **Wracking/presence of organic litter:**
- ☐ **Presence of large wood:**
- ☐ **Leaf litter disturbed or washed away:**
- ☐ **Water staining:**
- ☐ **Weathered clasts or bedrock:**

Other observed indicators?

Describe:

None

Step 4 Is additional information needed to support this determination?

☐ Yes ☒ No

If yes, describe and attach information to datasheet:

Project ID #: NWW-1a

Step 5 Describe rationale for location of OHWM

The OHWM is defined at the break of an incised bank so streambed.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☒ No If no, explain why not: See Appendix C

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description

OHWM Field Identification Datasheet Instructions and Field Procedure

Step 1 **Site overview from remote and online resources** **Complete Step 1 prior to site visit.**

Online Resources: Identify what information is available for the site. Check boxes on datasheet next to the resources used to assess this site.

a. gage data
b. aerial photos
c. satellite imagery
d. LiDAR
e. topographic maps
f. geologic maps
g. land use maps
h. climatic data (precipitation and temperature)

Landscape context: Use the online resources to put the site in the context of the surrounding landscape.

a. **Note on the datasheet under Step 1:**
   i. Overall land use and change if known
   ii. Recent extreme events if known (e.g., flood, drought, landslides, debris flows, wildfires)
b. Consider the following to inform weighting of evidence observed during field visit.
   i. What physical characteristics are likely to be observed in specific environments?
   ii. Was there a recent flood or drought? Are you expecting to see recently formed or obscured indicators?
   iii. How will land use affect specific stream characteristics? How natural is the hydrologic regime? How stable has the landscape been over the last year, decade, century?

Step 2 Site conditions during the field assessment (assemble evidence)

a. Identify the assessment area.
b. Walk up and down the assessment area noting all the potential OHWM indicators.
c. Note broad trends in channel shape, vegetation, and sediment characteristics.
   i. Is this a single thread or multi-thread system? Is this a stream-wetland complex?
   ii. Are there any secondary and/or floodplain channels?
   iii. Are there obvious man-made alterations to the system?
   iv. Are there man-made (e.g., bridges, dams, culverts) or natural structures (e.g., bedrock outcrops, Large Wood jams) that will influence or control flow?
d. Look for signs of recurring fluvial action.
   i. Where does the flow converge on the landscape?
   ii. Are there signs of fluvial action (sediment sorting, bedforms, etc.) at the convergence zone?
e. Look for indicators on both banks. If the opposite bank is not accessible, then look across the channel at the bank.
f. **In Step 2 of the datasheet** describe any adjacent land use or flow conditions that may influence interpretation of each line of evidence.
   i. What land use and flow conditions may be affecting your ability to observe indicators at the site?
   ii. What recent extreme events may have caused changes to the site and affected your ability to observe indicators?

Step 3a List evidence

Assemble evidence by checking the boxes next to each line of evidence:

a. If needed, use a separate scratch datasheet to check boxes next to possible indicators, or check boxes of possible indicators in pencil and use pen for final decision.
b. If using fillable form, then follow the instructions for filling in the fillable form.

Context is important when assembling evidence. For instance, pool development may be an indicator of interest on the bed of a dry stream, but may not be a useful indicator to take note of in a flowing stream. On the other hand, if the pool is found in a secondary channel adjacent to the main channel, it could provide a line of evidence for a minimum elevation of high flows. Therefore, consider the site context when deciding which indicators provide evidence for identifying the OHWM. Explain reasoning in Step 5.

Questions to consider while making observations and listing evidence at a site:

Geomorphic indicators	**Sediment and soil indicators**	**Vegetation Indicators**	**Ancillary indicators**
Where are the breaks in slope?	Where does evidence of soil formation appear?	Where are the significant transitions in vegetation species, density, and age?	Is there organic litter present?
Are there identifiable banks?		Is there vegetation growing on the channel bed?	
Is there an easily identifiable top of bank?	Are there mudcracks present?	If no, how long does it take for the non-tolerant vegetation to establish relative to how often flows occur in the channel?	Is there any leaf litter disturbed or washed away?
Are the banks actively eroding?			
Are the banks undercut?	Is there evidence of sediment sorting by grain size?	Where are the significant transitions in vegetation?	Is there large wood deposition?
Are the banks armored?			
Is the channel confined by the surrounding hillslopes?		Is the vegetation tolerant of flowing water?	Is there evidence of water staining?
Are there natural or man-made berms and levees?		Has any vegetation been flattened by flowing water?	
Are there fluvial terraces?			
Are there channel bars?			

Are the following features of fluvial transport present?

Evidence of erosion: obstacle marks, scour, armoring
Bedforms; riffles, pools, steps, knickpoints/headcuts
Evidence of deposition: imbricated clasts, gravel sheets, etc.

In some cases, it may be helpful to explain why an indicator was NOT at the OHWM elevation, but found above or below. It can also be useful to note if specific indicators (e.g., vegetation) are NOT present. For instance, note if the site has no clear vegetation zonation.

OHWM Field Identification Datasheet Instructions and Field Procedure

Step 3b Weight each line of evidence and weigh body of evidence

Weight each indicator by considering its importance based upon:

a. Relevance:

i. Is this indicator left by low, high, or extreme flows?

Tips on how to assess the indicator relative to type of flow:

Consider the elevation of the indicator relative to the channel bed. What is the current flow level based on season or nearby gages? Consider the elevation of the indicator relative to the current flow. If the stream is currently at baseflow and indicator is adjacent to that, then it is likely a low flow indicator. The difference between high and extreme flow indicators can sometimes be difficult to determine.

***Landscape context from Step 1 can help determine the relevance, strength, and reliability of the indicators observed in the field.**

***Information in Chapter 2 of the OHWM field manual provides information on specific indicators which can assist in putting these in context and determining relevance, strength, and reliability.**

ii. Did recent extreme events and/or land use affect this indicator?

1. Recent floods may have left many extreme flow indicators, or temporarily altered channel form. Other resources will likely be needed to support any OHWM identification at this site. Field evidence of the OHWM may have to wait for the site to recover from the recent flood.
2. Droughts may cause field evidence of OHWM to be obscured, because there has been an extended time since the last high flow event. There can be overgrowth of vegetation or deposition of material from surrounding landscape that can obscure indicators.
3. Both man-made (e.g., dams, construction, mining activities, urbanization, agriculture, grazing) and natural (e.g., fires, floods, debris flows, beaver dams) disturbances can all alter how indicators are expected to appear at a site. Chapter 6 and Chapter 7 of the OHWM field manual provides specific case-studies that can help in interpreting evidence at these sites.

b. Strength:

i. Is this indicator persistent across the landscape?

1. Look up and downstream and across the channel to see if you see the same indicator at multiple locations.
2. Does the indicator occur at the same elevation as other indicators?

c. Reliability:

i. Is this indicator persistent on the landscape over time? Will this indicator still persist across seasons?

1. This can be difficult to determine for some indicators and may be specific to climatic region (in terms of persistence of vegetation) and history of land use or other natural disturbances.
2. Chapter 2, Chapter 6, and Chapter 7 of the OHWM field manual describes each indicator in detail and provides examples of areas where indicators are difficult to interpret.

d. Weigh body of evidence:

i. Combine weights: integrate the weighted line of evidence (relevance, strength, reliability) of each indicator.

ii. For each of the observed indicators, which are more heavily weighted? Where do high value indicators co-occur along the stream reach? Do they co-occur at a similar elevation along the banks relative to water surface (or channel bed if there is no water).

iii. On datasheet, select the indicators used to identify the OHWM. Information in Chapter 2 of the OHWM field manual provides descriptions of specific indicators which can assist in putting these in context and determining relevance, strength, and relieability.

e. Take photographs of indicators and attach a log using either page 2 of datasheet or another method of logging photos.

i. Annotate photos with descriptions of indicators.

Step 4 Is additional information needed? Are other resources needed to support the lines of evidence observed in the field?

a. If additional resources are needed, then repeat steps 3a and 3b for the resources selected in Step 1 of assembling, weighting, and weighing evidence collected from online resources. Chapter 5 of the OHWM field manual provides information on using online resources.

b. Any data collected from online tools have strengths and weaknesses. Make sure these are clear when determining relevance, strength, and reliability of the remotely collected data. Clearly describe why other resources were needed to support the lines of evidence observed in the field, as well as the relevance, strength, and reliability of the supporting data and/or resources.

c. Attach any remote data and data analysis to the datasheet.

Step 5 Describe rationale for location of OHWM:

a. Why do the combination of indicators represent the OHWM?

b. If there are multiple possibilites for the OHWM, explain why there are two (or more) possibilities. Include any relevant discussion on why specific indicators were not included in the final decision.

c. If needed, add additional site notes on page 2 of the datasheet under Step 5.

Appendix C
Review Area Photos

Photo 1. NWW-1b at OHWM form point, looking upstream.

Photo 2. NWW-2 at OHWM form point, looking downstream.

Photo 3. NWW-2 at OHWM form point, looking upstream.

Photo 4. NWW-2 near Carson Mesa Road.

Photo 5. NWW-3 at OHWM form point, looking upstream.

Photo 6. NWW-3 at OHWM form point, looking downstream.

Photo 7. NWW-4 at OHWM form point, looking upstream.

Photo 8. NWW-4 at its downstream terminus.

Photo 9. NWW-5 at OHWM form point, looking downstream.

Photo 10. NWW-5 at OHWM form point, looking upstream.

Photo 11. NWW-5 near its terminus at equestrian property.

Photo 12. NWW-6 at OHWM form point, looking downstream.

Photo 13. NWW-6 at OHWM form point, looking upstream.

Photo 14. NWW-7 at OHWM form point, looking downstream.

Photo 15. Representative photo of Swale-3.

Photo 16. Representative photo of Swale-5.

Photo 17. Representative photo of Swale-6.

Photo 18. Representative photo of Erosional Feature-1.

Photo 19. Representative photo of Erosional Feature-2.

Photo 20. Representative photo of Erosional Feature-3.

Photo 21. Representative photo of NWW-1a north of Soledad Canyon Road.

Photo 22. Representative photo of NWW-1d.

Photo 23. Representative photo of NWW-8.

Appendix D
Mapbook

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 30 60 Feet 1 inch = 61 feet

EF-1

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 37.5 75 Feet 1 inch = 75 feet

EF-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

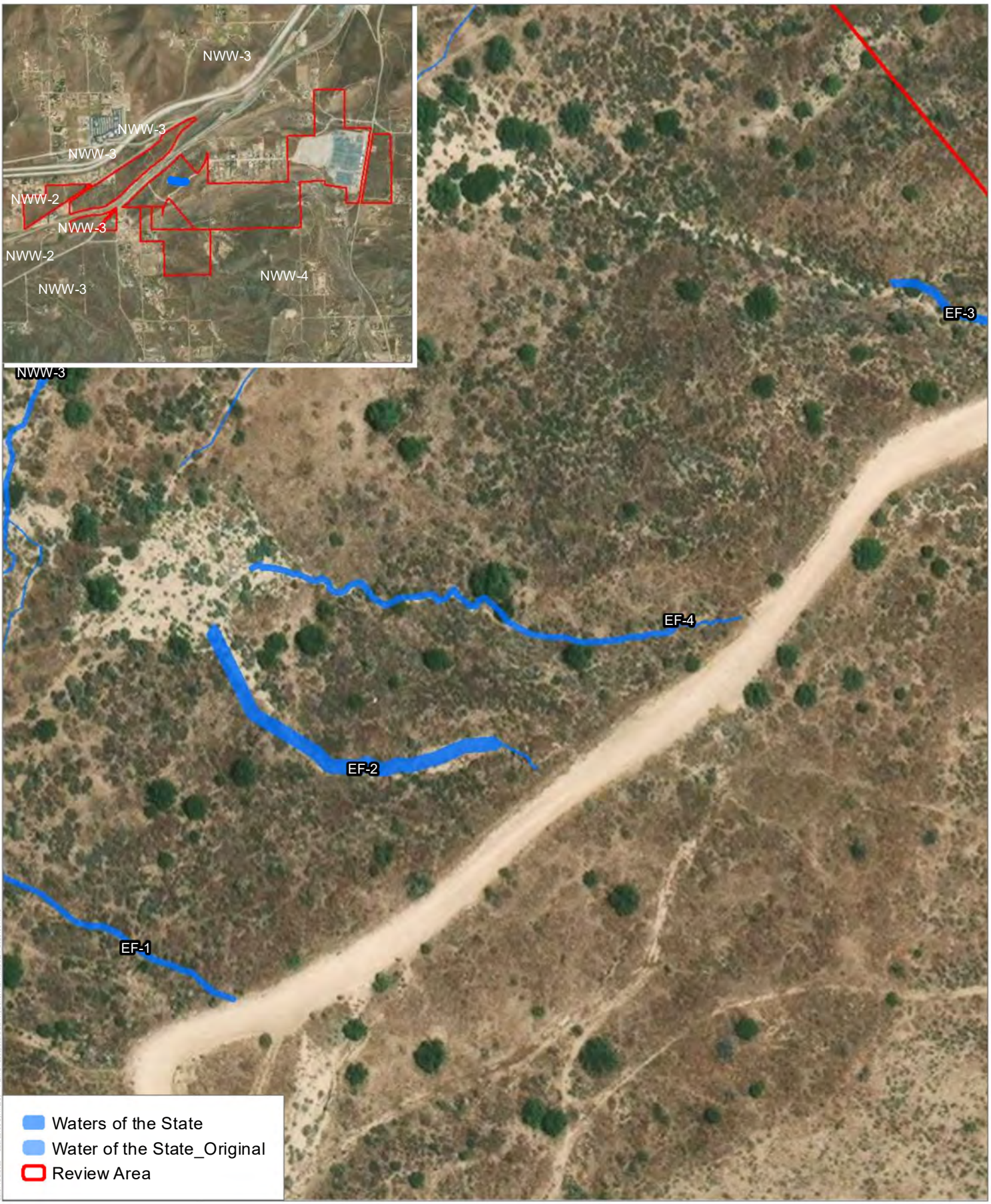
0 15 30 Feet

1 inch = 38 feet

EF-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 55 110 Feet 1 inch = 112 feet

EF-4

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

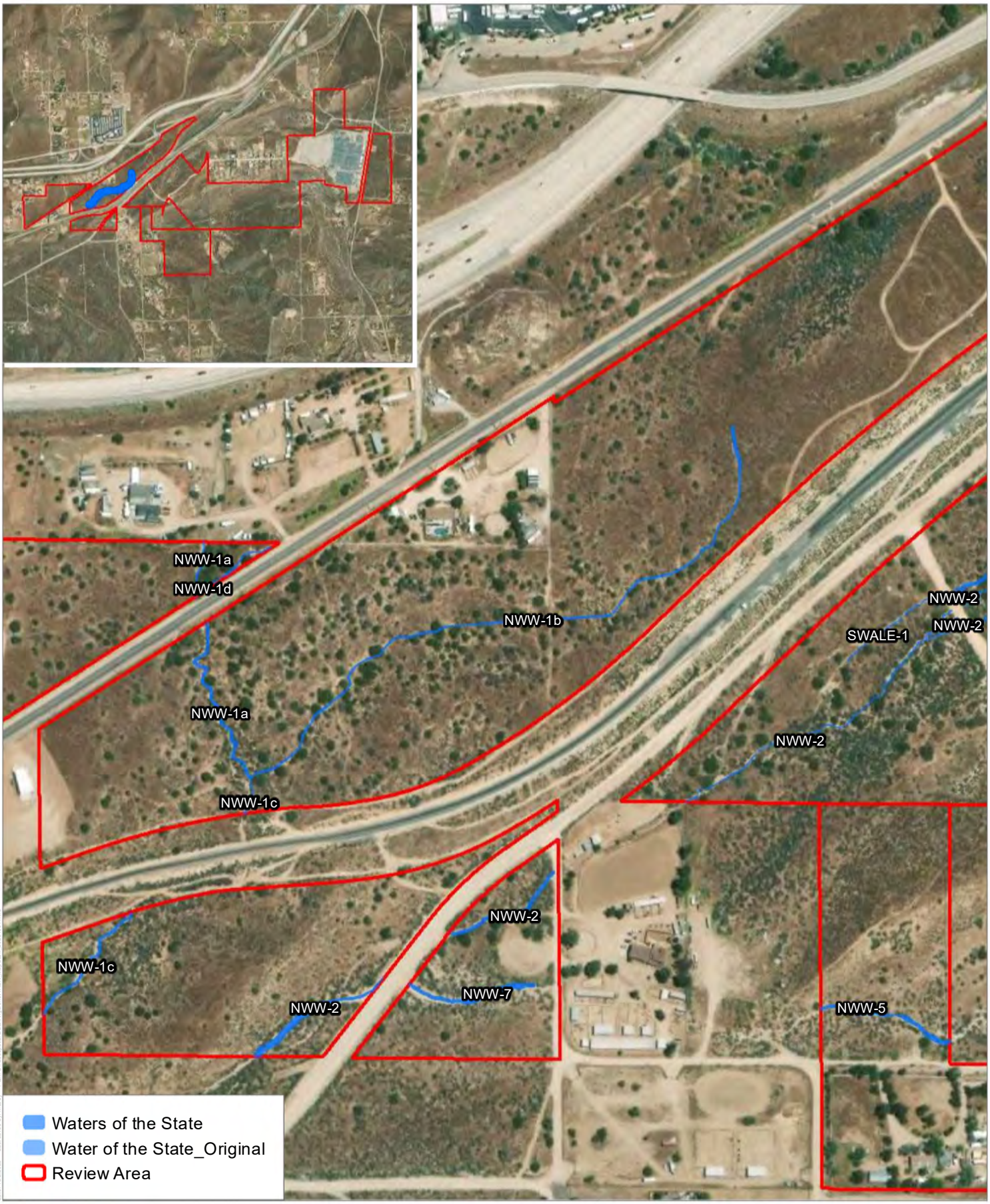
DUDEK

0 65 130 Feet 1 inch = 132 feet

NWW-1a

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

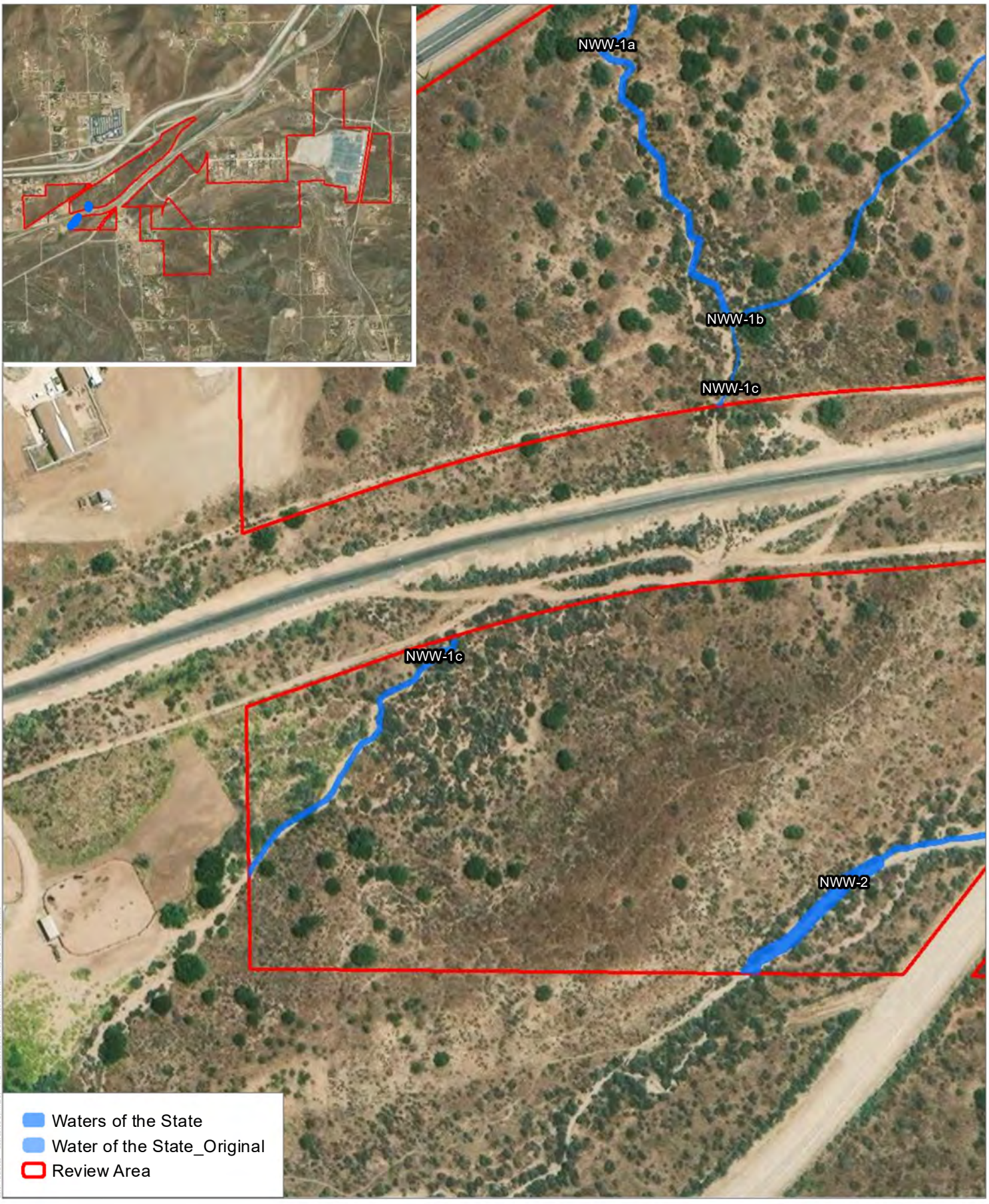
DUDEK

0 165 330 Feet 1 inch = 330 feet

NWW-1b

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 70 140 Feet 1 inch = 141 feet

NWW-1c

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

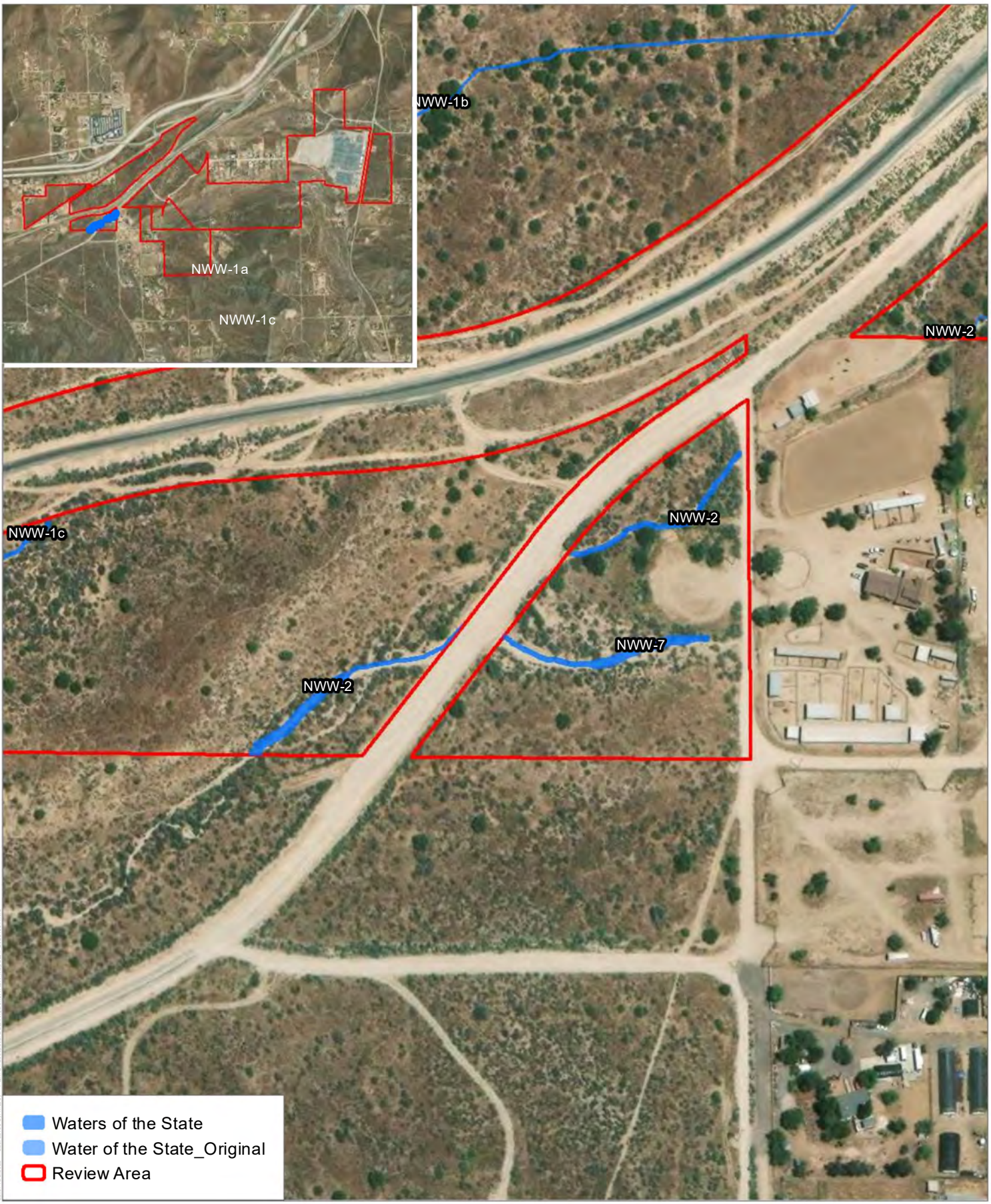
0 20 40 Feet

1 inch = 49 feet

NWW-1d

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 100 200 Feet 1 inch = 202 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 65 130 Feet 1 inch = 132 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

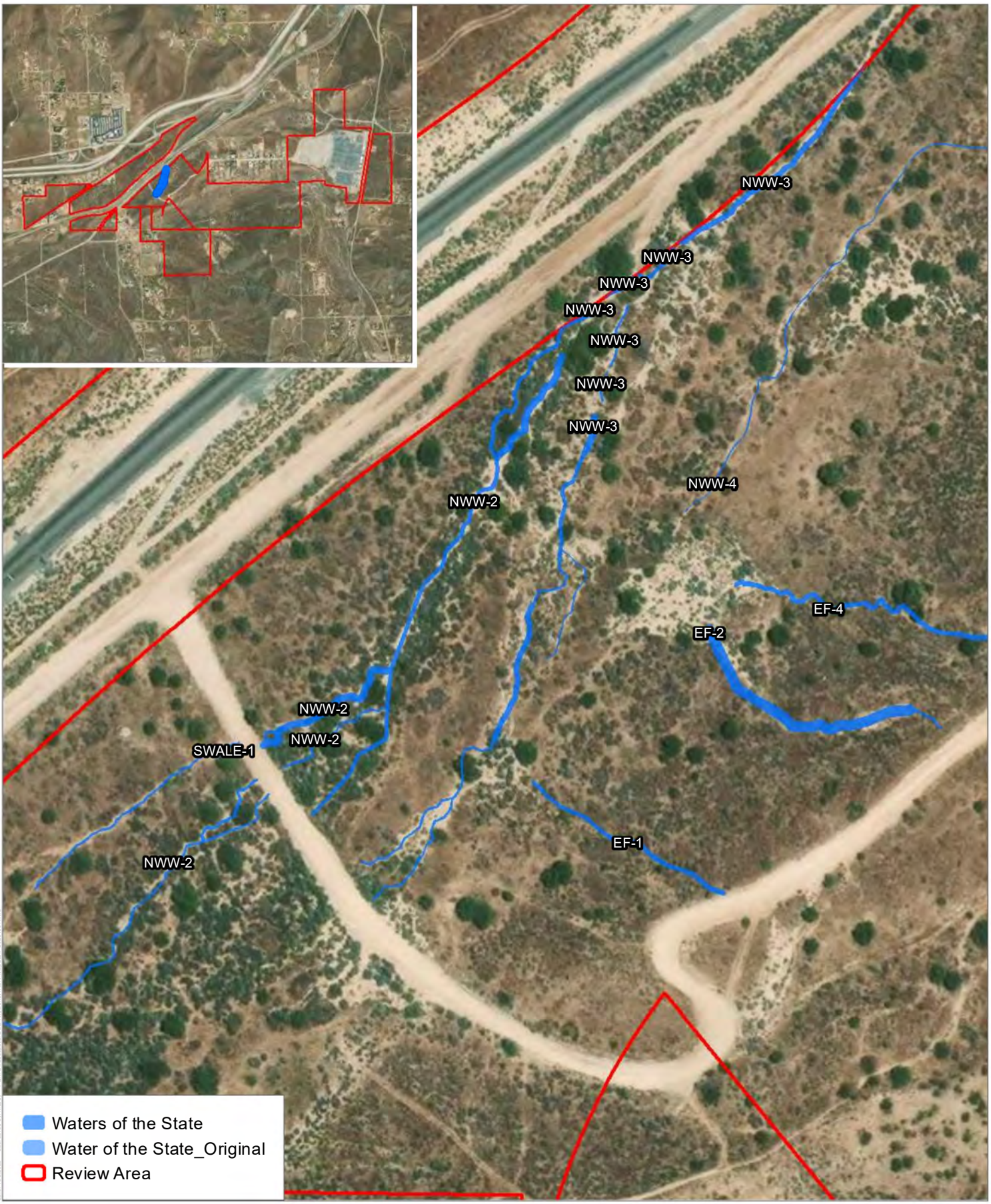
DUDEK

0 90 180 Feet 1 inch = 183 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

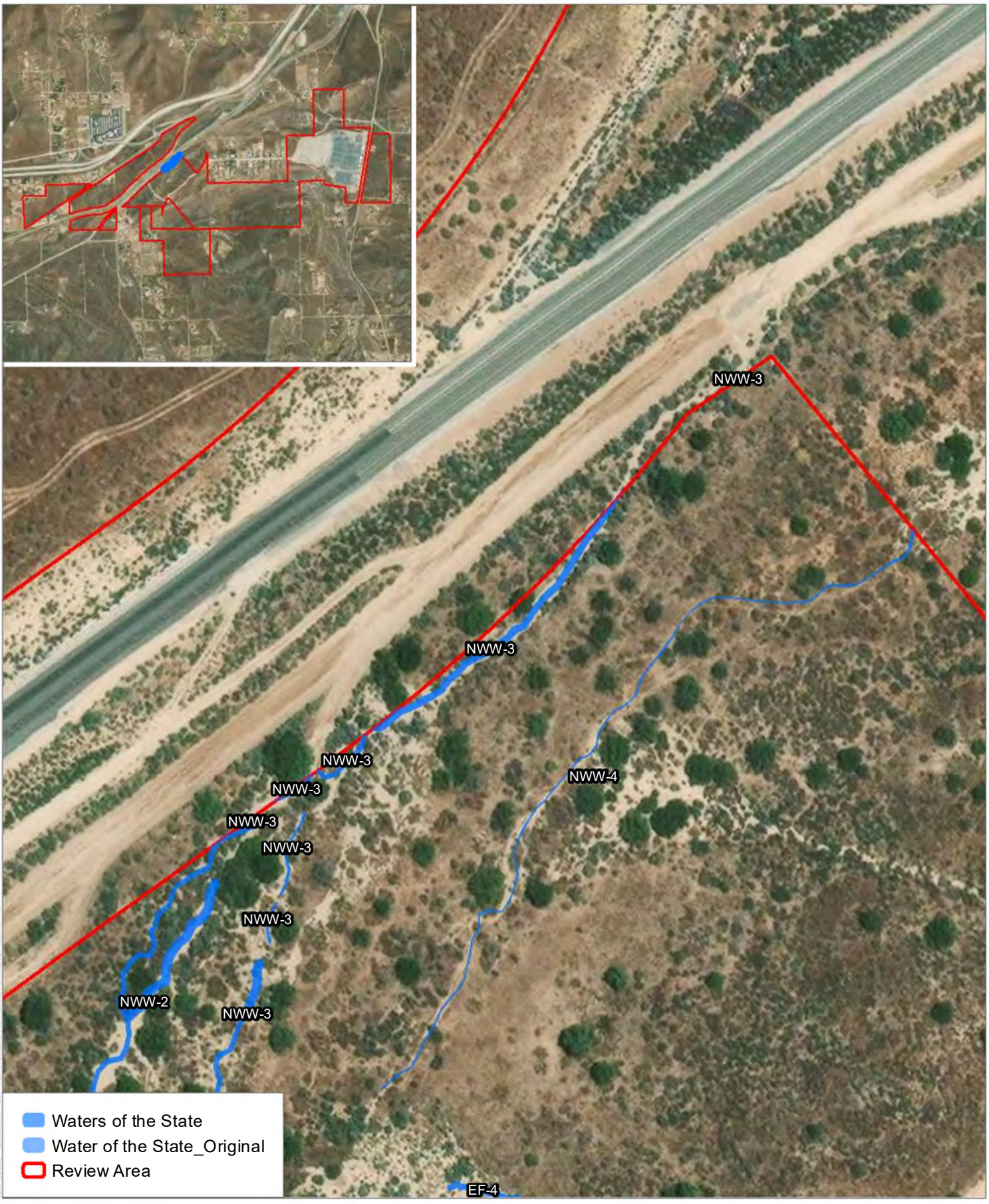
DUDEK

0 75 150 Feet 1 inch = 156 feet

NWW-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

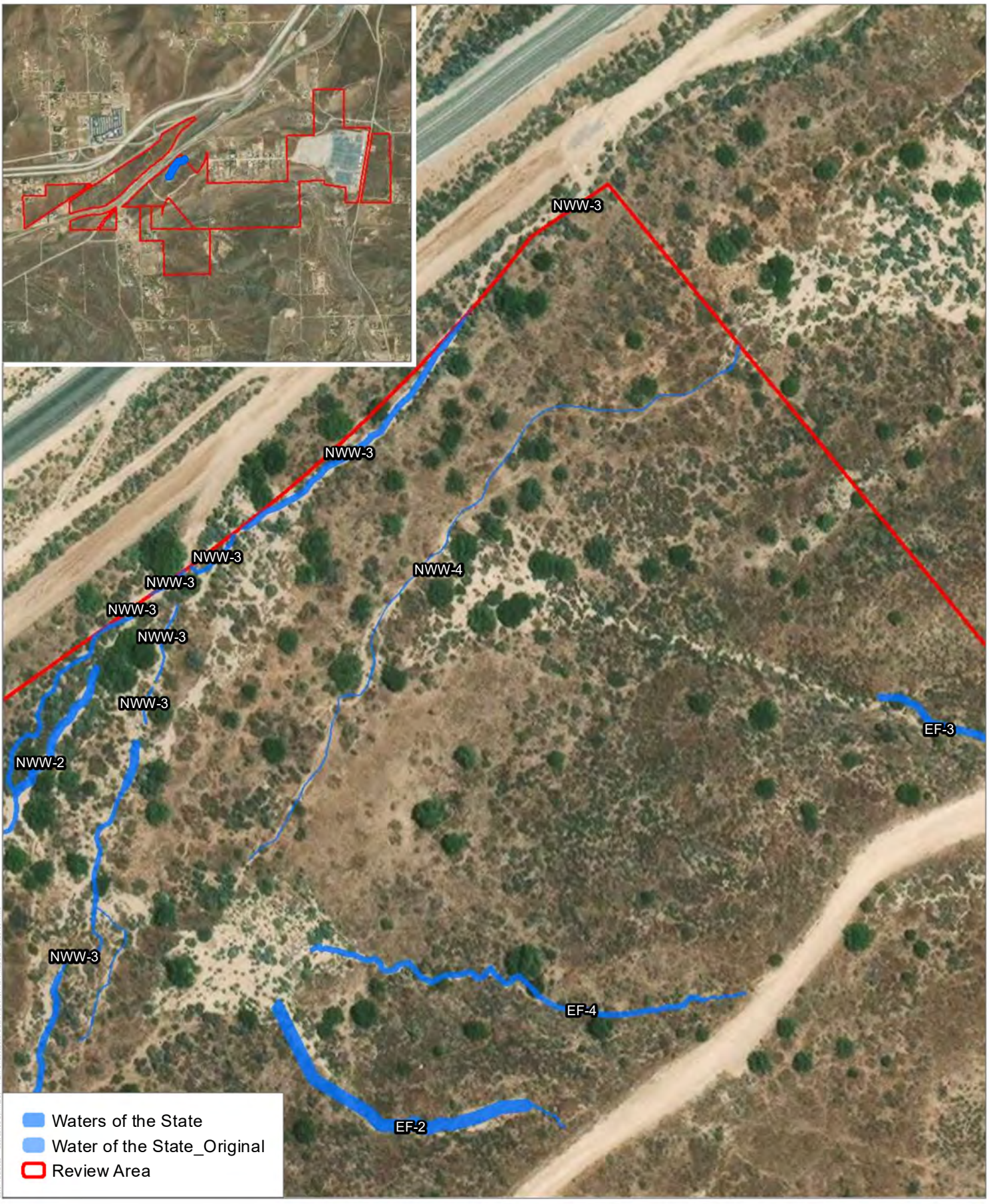
0 55 110 Feet

1 inch = 116 feet

NWW-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

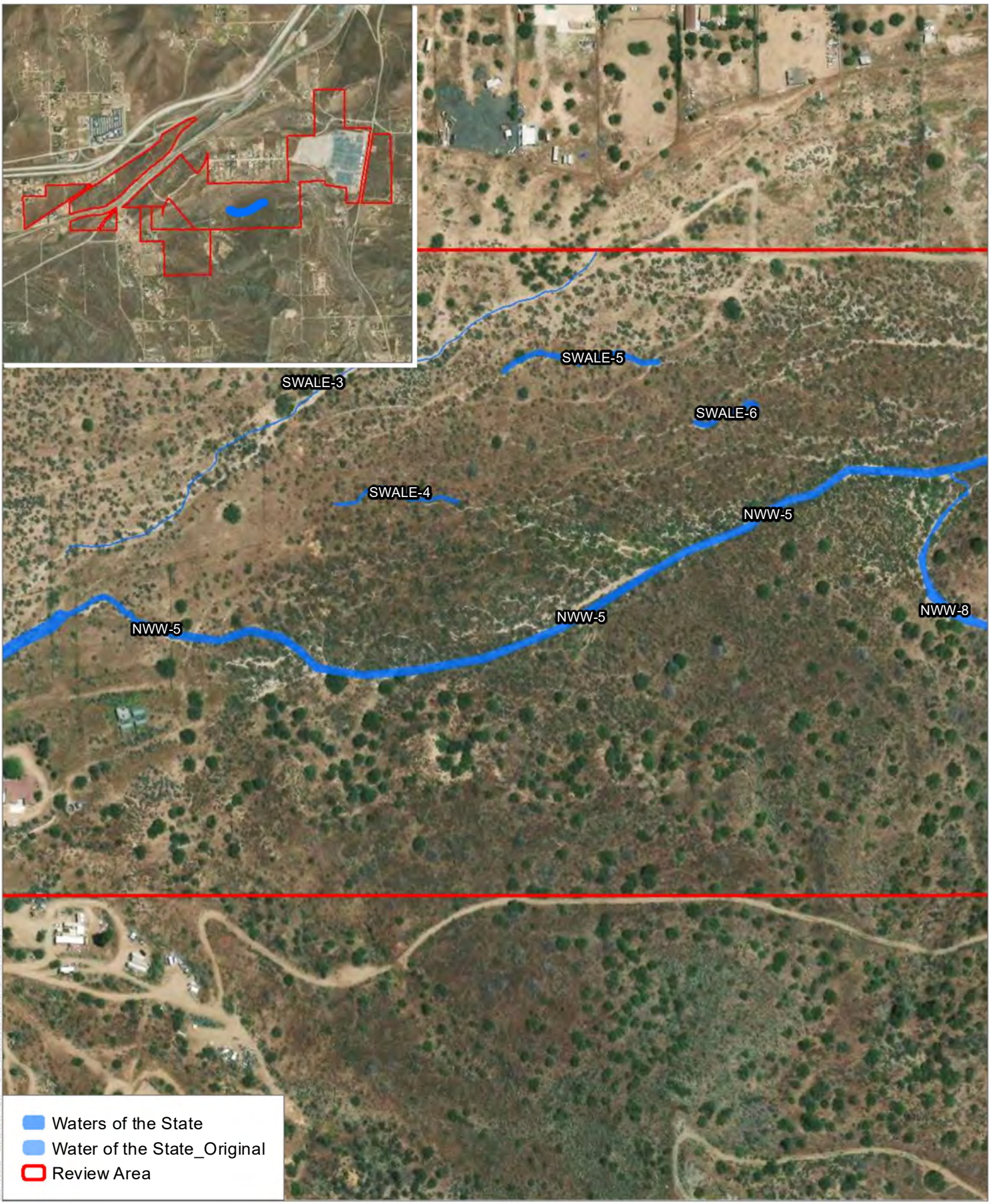
DUDEK

0 62.5 125 Feet 1 inch = 126 feet

NWW-4

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 130 260 Feet 1 inch = 262 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

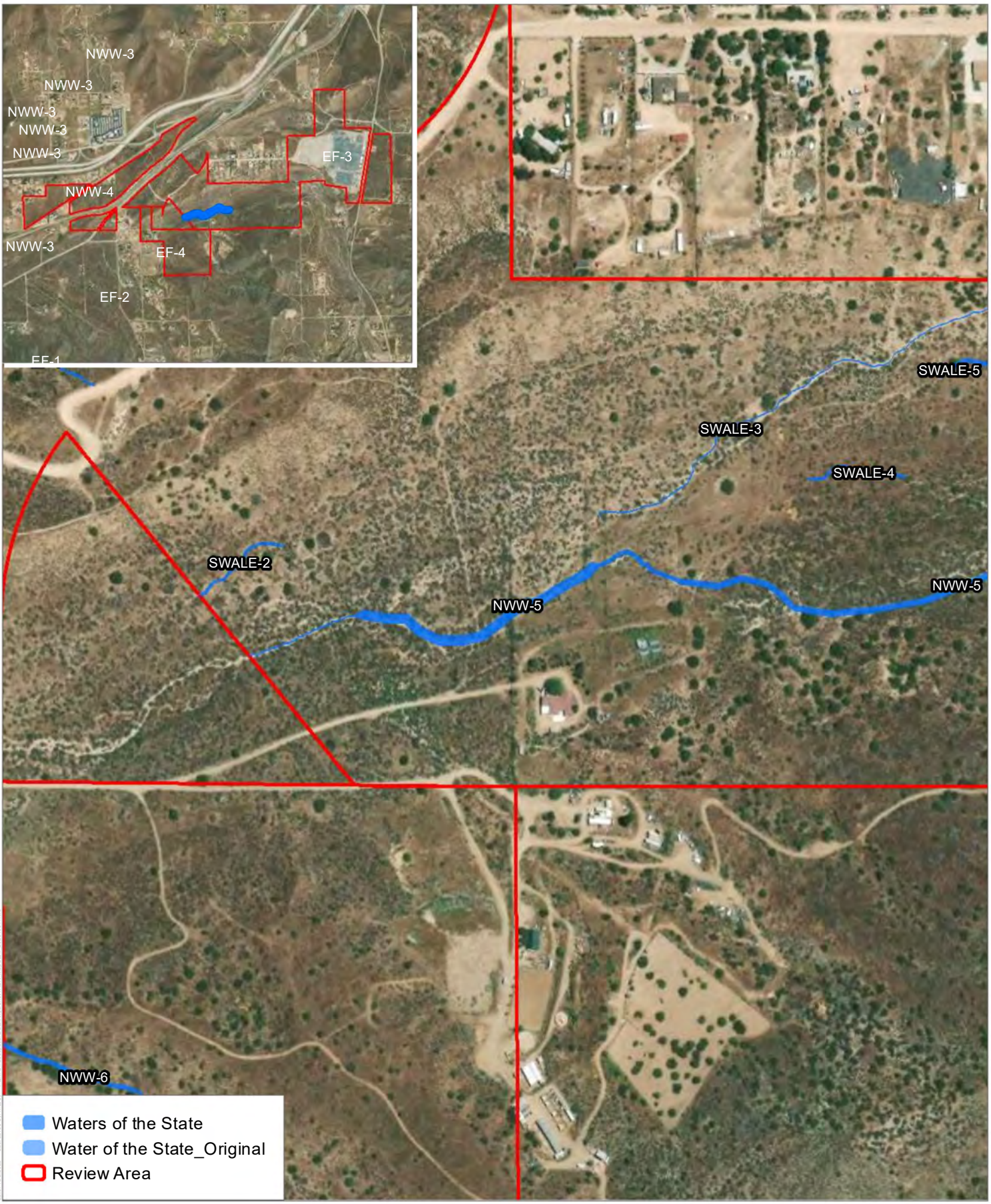
0 40 80 Feet

1 inch = 87 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

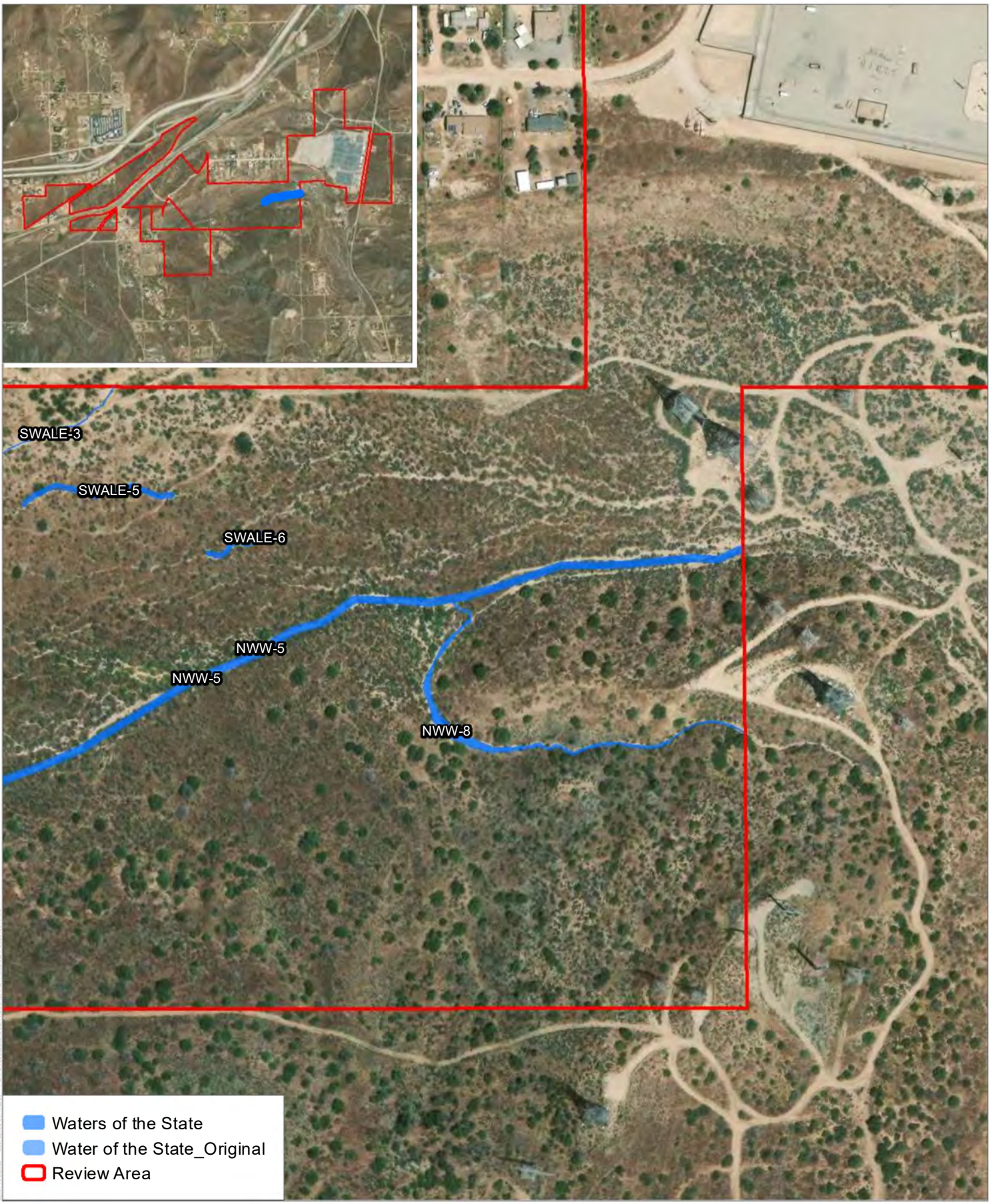
DUDEK

0 165 330 Feet 1 inch = 333 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 137.5 275 Feet 1 inch = 272 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 85 170 Feet 1 inch = 168 feet

NWW-6

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 40 80 Feet

1 inch = 85 feet

NWW-7

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 212.5 425 Feet 1 inch = 419 feet

NWW-7

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 87.5 175 Feet 1 inch = 177 feet

NWW-8

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 5 10 Feet

1 inch = 15 feet

NWW-9

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK 0 30 60 Feet 1 inch = 65 feet

SWALE-1

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

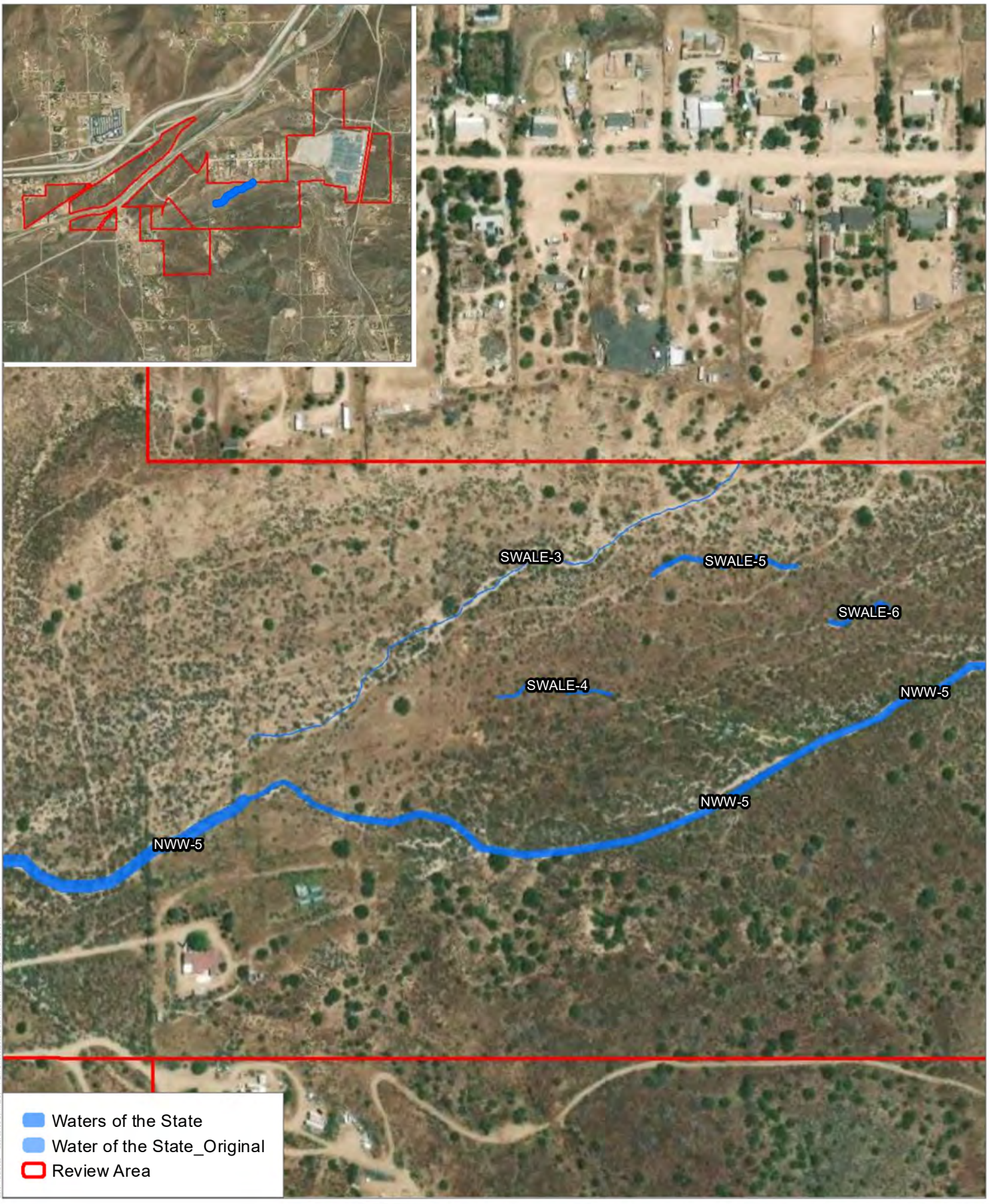
0 25 50 Feet

1 inch = 57 feet

SWALE-2

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 140 280 Feet 1 inch = 283 feet

SWALE-3

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 30 60 Feet

1 inch = 66 feet

SWALE-4

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 40 80 Feet

1 inch = 84 feet

SWALE-5

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 15 30 Feet

1 inch = 35 feet

SWALE-6

Potential Jurisdictional Waters

Prairie Song Reliability Project

Attachment E

Copy of Application for a Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements

DUDEK
225 SOUTH LAKE AVENUE
SUITE M210
PASADENA, CALIFORNIA 91101
T 626.204.9800

November 14, 2025 13594

California Regional Water Quality Control Board
Los Angeles Region
320 West Fourt Street, Suite 200
Los Angeles, California 900013

Subject: **Application for a Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements for the Prairie Song Reliability Project, Los Angeles County, California**

Dear Los Angeles Region:

On behalf of Prairie Song Reliability Project, LLC (Applicant), Dudek submits the enclosed application for a Clean Water Act (CWA) Section 401 Water Quality Certification (WQC)/Porter-Cologne Water Quality Control Act Waste Discharge Requirements (WDR) for the Prairie Song Reliability Project (project) located in Los Angeles County, California. The project has elected to opt into the California Energy Commission's jurisdiction per the 2022 Assembly Bill 205 (AB 205).

Attachment A is the WQC/WDR application form. Table 1 outlines the location of each item required pursuant to the 2023 CWA Section 401 Water Quality Certification Improvement Rule, effective November 27, 2023, in this application package.

Table 1. CWA Section 401 Water Quality Certification Improvement Rule Requirements

Pursuant to 40 CFR Part 121, Section 121.5(b), the request for a Clean Water Act Section 401 Water Quality Certification must include the following:	Location of Information
1. A description of the proposed activity, including the purpose of the proposed activity and the type(s) of discharge(s) that may result from the proposed activity.	See the "Project or Activity Information" Section (Items 14 and 15) and Attachment A.
2. The specific location of any discharge(s) that may result from the proposed activity.	See Attachment B
3. A map or diagram of the proposed activity site, including the proposed activity boundaries in relation to local streets, roads, and highways.	See Attachment B
4. A description of current activity site conditions, including but not limited to relevant site data, photographs that represent current site conditions, or other relevant documentation.	See Attachments D
5. The date(s) on which the proposed activity is planned to begin and end and, if known, the approximate date(s) when any discharge(s) may commence.	See Attachment C

Table 1. CWA Section 401 Water Quality Certification Improvement Rule Requirements

Pursuant to 40 CFR Part 121, Section 121.5(b), the request for a Clean Water Act Section 401 Water Quality Certification must include the following:	Location of Information
6. A list of all other Federal, interstate, Tribal, state, territorial, or local agency authorizations required for the proposed activity and the current status of each authorization.	See Attachment A
7. Documentation that a pre-filing meeting request was submitted to the certifying authority in accordance with applicable submission procedures, unless the pre-filing meeting request requirement was waived.	Under AB 205, the CEC is the lead CEQA agency for environmental review and permitting for any facility that elects to opt into the CEC's jurisdiction.

List of Attachments

The following attachments are provided in this application:

- A. Application Form
- B. Figures
- C. Project Description
- D. Aquatic Resources Delineation Report
- E. Copy of California Department of Fish and Wildlife Notification of Lake or Streambed Alteration Agreement Application
- F. Alternative Analysis

Please let me know if you have any comments or questions at mcady@dudek.com or 626 204 9841.

Sincerely,

Michael Cady

Michael Cady
Senior Biologist

Attachment A

Application Form

Application: Discharges of Dredged or Fill Material to Waters of the State

STOP: If you answer 'yes' to any of the following questions, do not complete this application. Instead, please contact the State Water Board's Division of Water Rights to obtain a copy of their water quality certification application:

- Does the project require a Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license? **Yes** ☐ **No** ☒
- Does this project involve an appropriation of water? **Yes** ☐ **No** ☒
- Does this project involve a diversion of water for domestic, irrigation, power, municipal, industrial, or other beneficial use? **Yes** ☐ **No** ☒

Screening Criteria:

Check the box next to the category(ies) that applies to your project. Check all that apply.

Your project:

☐ Requires an individual permit (standard or letter of permission) from the U.S. Army Corps of Engineers.

☐ Requires preparation of an Environmental Impact Statement under NEPA.

☐ Requires preparation of an Initial Study and Negative Declaration or Mitigated Negative Declaration under CEQA and it is not yet complete, or the Water Board will be lead agency for the Initial Study.

☒ Requires preparation of an Environmental Impact Report (EIR) under CEQA and it is not yet complete.

☐ Permanently impacts 1.0 or more acres of waters of the U.S.

☐ Discharges into a water body of special designation, including designated critical resource waters and wetlands adjacent to such waters, Outstanding National Resource Waters (Lake Tahoe, Mono Lake), or State Water Board designated Areas of Special Biological Significance (ASBS).

☐ Discharges into a water body that provides habitat for state listed rare, threatened, or endangered species.

☐ Requires completion of a Tier 3 alternatives analysis per the Dredge or Fill Procedures (section IV.A.2.h).

☐ Involves new (not maintenance) dredging or deepening of a navigation channel or dredging and disposal of contaminated sediments.

Section One: Contact Information

Review **Section Twelve** Legally Responsible Person (LRP) eligibility and signature requirements before completing this application.

Applicant (Organization and Legally Responsible Person) Information:

Organization Name:	Prairie Song Reliability Project LLC
LRP Name:	Garrett Lehman
Title:	Director
Street Address:	11801 Domain Blvd, Suite 450
City:	Austin
State:	Texas
County:	Travis
Zip Code:	78758
Telephone:	N/A
Email:	glehman@covalinfra.com

The LRP may assign a Duly Authorized Representative (DAR) to make decisions on their behalf and provide application information. If a DAR is assigned to this project, provide the assigned person's contact information below and assign the DAR in Section Twelve.

Duly Authorized Representative Information (Optional):

Organization Name:	Dudek
DAR Name:	Michael Cady
Title:	Senior Biologist
Street Address:	225 South Lake Avenue, Suite M10
City:	Pasadena
State:	California
County:	Los Angeles
Zip Code:	91101
Telephone:	626 204 9841
Email:	mcady@dudek.com

Section Two: Project Information

Project Name or Title: *Project Name should match all other agency permits and correspondence.*	
Prairie Song Reliability Project	
Project Street Address: *Provide the project's physical location, not the mailing address.*	
The project does not have a street address.	
City:	Unincorporated Los Angeles County
State:	California
County:	Los Angeles
Zip Code:	93510
Latitude:	34.485487°
Longitude:	-118.138757°
Assessor's Parcel Number(s):	3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, 3056-019-040, 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, 3056-015-802, 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, 3056-015-802
Section, Township, Range:	Township 5N, Range 12W, Sections 27, 28, 33 and 34

Directions to the Project Site:

From State Route 14-northbound, exit at Sierra Highway, cross Sierra Highway to Soledad Canyon round and head southwest.

See Attachment B for figures showing the Project location.

Project Purpose and Overall Goal of Entire Activity:

The project will operate by transferring electrical energy from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

See Attachment C, Project Description, for full project objectives.

Project Description: *Provide a full, technically accurate description of the entire project.*

The project proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Prairie Song Reliability Project located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead generation interconnection transmission line, and interconnection facilities within the existing Southern California Edison-owned and operated Vincent Substation.

See Attachment C, Project Description, for full project objectives.

Project Size: Total size of the entire project area for all work/activities/construction that will be performed to meet the final goal: 107 **acres**

Is this a linear project (for example a powerline, pipeline, highway, etc.)? Yes ☐ **No** ☒

If yes, indicate length of project from end-to-end in feet: NA **feet**

Anticipated Project Start and End Dates: 3/2027 – 2069

Construction Start Date: 3/2027

Construction End Date: 4/2029

Estimated Construction Duration: 26 **months**

Will any ground disturbance take place during the wet season months? Yes ☒ **No** ☐

Additional Information: *Additional information may include documentation relevant to pre-application consultations which may help inform application processing.*

Map Requirements:

In addition to responding to the questions above, provide a project map with a scale of at least 1:24000 (1" = 2000') and of sufficient detail to show:

- The boundaries of the lands owned or to be utilized by the applicant in carrying out the proposed activity, including grading limits, proposed land uses, and the location, dimensions and type of any structures erected (if known) or to be erected.
- All aquatic resources that may qualify as waters of the state, within the boundaries of a project, and all aquatic resources that may qualify as waters of the state outside of the boundary of the project that could be impacted by the project.

A map verified by the Corps may satisfy this requirement if it includes all potential waters of the state. Note that a map in electronic format (e.g., GIS shapefiles) may be required.

Section Three: Agency Contact Information

Attach copies of any final and signed federal, state, and local licenses, permits, and agreements (or copies of the draft documents or submitted application, if not finalized) associated with construction, operation, maintenance, or other actions relevant to the project. If a draft or final document is not available, a list of all remaining agency regulatory approvals being sought should be included. (CCR § 3856 (e).)

Federal Permit(s) or Completed Federal Applications

U.S. Army Corps of Engineers:

☒ Not Applicable

District: ☐ Los Angeles ☐ Sacramento ☐ San Francisco

☐ Individual Permit

☐ Letter of Permission

☐ Which Nationwide Permit Number has been applied for, if any? _____

For Nationwide Permits, select one of the following: ☐ Non-Reporting, or ☐ Reporting

☐ Corps File No.: _____

☐ Regional General Permit / Number: _____

☐ Other Permit Name: _____

Corps Contact Information:

Name: _____

Telephone: _____

Email: _____

U.S. Fish and Wildlife Service:

☒ N/A ☐ Biological Opinion ☐ Biological Assessment ☐ Incidental Take Permit

Contact Information:

Name: _____

Telephone: _____

Email: _____

National Marine Fisheries Service:

☒ N/A ☐ Biological Assessment ☐ Biological Opinion

Contact Information:

Name: _____

Telephone: _____

Email: _____

State Permit(s) or Completed State Application(s)

List permits for activities related to waters whether applied for or approved, e.g., California Department of Fish and Wildlife (CDFW) Lake or Streambed Alteration Agreement (Fish and Game Code sections 1600-1608), CESA section 2081 Incidental Take Permit, Construction Stormwater Enrollment, Coastal Development Permit, etc.

State or Local Permit Number	File Date	Tracking Number
CDFW Lake and Streambed Alteration Agreement (Fish and Game Code section 1600)	July 2025	TBD
CDFW Incidental Take Permit (Fish and Game Code section 2081)	NA	NA
CDFW Consistency Determination (Fish and Game Code section 2080)	NA	NA
State Water Board Construction Stormwater General Permit Enrollment	TBD	TBD
California Coastal Commission (Development Permit)	NA	NA
California Coastal Commission (Consistency Determination)	NA	NA
Bay Conservation and Development Commission (Development Permit)	NA	NA
Bay Conservation and Development Commission (Consistency Determination)	NA	NA
Central Valley Flood Protection Board	NA	NA
Other: _____		

Note: TBD = To Be Determined

State or Local Agency Contact Information: *Provide additional contacts, as needed:*

Agency Name:	California Energy Commission
Contact Name:	Lisa Worrall
Telephone:	916-661-8367
Email:	Stepsiting@energy.ca.gov

Agency Name:	
Contact Name:	
Telephone:	
Email:	

Section Four: Special Status Species

If known, provide information about the presence of species identified as rare, threatened, or endangered under state or federal law. Attach all biological assessments, surveys, formal consultation determination letters, and mitigation proposals, as applicable.

Are you aware of any rare, threatened, or endangered species at this site? Yes ☐ No ☒

Species Habitat and/or Name	Biological Assessment Prepared?	Survey Conducted? (Yes/No)	Dates Survey Conducted
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	
	Yes ☐ No ☐	Yes ☐ No ☐	

Was the project planned in accordance with an approved Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP)? Yes ☐ No ☒

If yes, list the HCP or NCCP name: _____

Section Five: California Environmental Quality Act and/or National Environmental Policy Act Compliance

Unless an exemption applies, the Water Boards must comply with the California Environmental Quality Act (CEQA). Although not required for a complete application, final CEQA documentation must be provided to the Water Board with ample time to properly review before an Order may be issued. (CCR § 3856 (f).)

The Water Boards will determine whether a project qualifies for a CEQA exemption during review of the project information. Identify below if applicable the relevant categorical or statutory exemption number you believe applies.

If you do not know whether a CEQA exemption applies to the proposed project, submit the application with as much information as possible.

Document Type	Status (In Preparation, Complete, or Under Revision)	Date Completed or Expected Completion Date	Lead Agency
Scoping Document			
Initial Study			
Negative Declaration			
Notice of Preparation			
Mitigated Negative Declaration			
Environmental Impact Report	In preparation	2026	California Energy Commission
Environmental Document			

Enter State Clearinghouse number here: To Be Determined

Does the project meet a statutory or categorical CEQA exemption? No ☒

Yes, proposed statutory exemption number: _____

Yes, proposed categorical exemption number: _____

Section Six: Aquatic Resource Information

Attach any aquatic resource delineation reports and maps for all aquatic resources that may qualify as waters of the state, including those outside of federal jurisdiction. Water Board staff will verify the presence or absence of waters of the state outside of federal jurisdiction during the application review process. (CCR § 3856 (h)(7).) The Water Boards may require supplemental field data from the wet season to substantiate dry season delineations (Procedures section IV.A.2.a).

Aquatic Resource Delineation Report Information:

Was an aquatic resource delineation report prepared?	**Yes ☒ No ☐**
Report Title:	Aquatic Resources Delineation Report -Prairie Song Reliability Project
Delineation Dates:	January 6, 11, and 23 2023; February 12 and 19, 2023; November 18 and 19, 2024; December 7, 2024, August 30, 2025
Name of Person who Prepared the Report:	Michael Cady

Title of Person who Prepared the Report:	Senior Biologist
Organization/Company who Prepared the Report:	Dudek
Was the report verified by the U.S. Army Corps of Engineers? If yes, enter verification date and submit a copy of the verification with this application:	**Yes** ☐ **No** ☒ Date: _____
Are there waters outside of federal jurisdiction?	**Yes** ☒ **No** ☐

Hydrologic Information:

Was the project developed in accordance with a watershed plan? Yes ☐ **No** ☒
If yes, what is the name of the watershed plan name? Attach the plan, or a link to the plan, if feasible: Not Applicable
How many waterbodies would be impacted by the project activity? 9 *If the project impacts more than one waterbody, attach the information below for each impacted waterbody; an excel spreadsheet or table may be used for projects with multiple impact sites.*
Does the impacted waterbody have a name? Yes ☐ **No** ☒
Name of the impacted waterbody; if unnamed, name of the nearest downstream named waterbody: Santa Clara River
Basin plan hydrologic unit(s), and if included in a basin plan, the hydrologic area and hydrologic subarea, if known: Kentucky Springs Canyon (HUC 180701020102), Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed
Does the project discharge to a waterbody listed as impaired on the Clean Water Act 303(d) list? Yes ☒ **No** ☐ Stormwater runoff from the Project site ultimately flows to the Santa Clara River, which is currently listed on the 303(d) list of impaired water bodies for bacteria and other microbes (Reach 7) and pesticides, salts (i.e., chloride), and total toxic chemicals (Reach 6)

Does the project discharge to a waterbody with a total maximum daily load (TMDL)?
Yes ☒ **No** ☐ No TMDLs have been established for pollutants for the nearby reaches of Santa Clara River; however, Reach 3 further downstream has a TMDL for Chloride with intentions of establishing TMDLs in Reaches 5 and 6 in the future.

Section Seven: Impact Quantities and Classification

List temporary and permanent **fill/excavation** impacts to waters of the state according to the aquatic resource type in the tables below. Round acres to at least the hundredth place (0.01); round cubic yards and linear feet to the nearest whole number**.**

Fill/Excavation Temporary Impacts

Lake/Reservoir

Acres	–
Cubic Yards	–
Linear Feet	–

Stream Channel

Acres	0.33
Cubic Yards	–
Linear Feet	1,300

Ocean/Bay/Estuary

Acres	–
Cubic Yards	–
Linear Feet	–

Vernal Pool

Acres	–
Cubic Yards	–
Linear Feet	–

Riparian Zone

Acres	–
Cubic Yards	–
Linear Feet	–

Wetland

Acres	–
Cubic Yards	–
Linear Feet	–

Classification System Name (if known):	Cowardin
Classification(s):	R4SBA

Fill/Excavation Permanent Impacts

Lake/Reservoir

Acres	–
Cubic Yards	–
Linear Feet	–

Stream Channel

Acres	0.33
Cubic Yards	–
Linear Feet	3,725

Ocean/Bay/Estuary

Acres	–
Cubic Yards	–
Linear Feet	–

Vernal Pool

Acres	–
Cubic Yards	–
Linear Feet	–

Riparian Zone

Acres	–
Cubic Yards	–
Linear Feet	–

Wetland

Acres	–
Cubic Yards	–
Linear Feet	–

Classification System Name (if known):	Cowardin
Classification(s):	R4SBA

List temporary and permanent **dredge/extraction** impacts to waters of the state according to the aquatic resource type in the tables below. Round acres to at least the hundredth place (0.01); round cubic yards and linear feet to the nearest whole number.

Dredge/Extraction Temporary Impacts

Lake/Reservoir

Acres	–
Cubic Yards	–
Linear Feet	–

Stream Channel

Acres	–
Cubic Yards	–
Linear Feet	–

Ocean/Bay/Estuary

Acres	–
Cubic Yards	–
Linear Feet	–

Vernal Pool

Acres	–
Cubic Yards	–
Linear Feet	–

Riparian Zone

Acres	–
Cubic Yards	–
Linear Feet	–

Wetland

Acres	–
Cubic Yards	–
Linear Feet	–

Classification System Name (if known):	–
Classification(s):	–

Dredge/Extraction Permanent Impacts

Lake/Reservoir

Acres	–
Cubic Yards	–
Linear Feet	–

Stream Channel

Acres	–
Cubic Yards	–
Linear Feet	–

Ocean/Bay/Estuary

Acres	–
Cubic Yards	–
Linear Feet	–

Vernal Pool

Acres	–
Cubic Yards	–
Linear Feet	–

Riparian Zone

Acres	–
Cubic Yards	–
Linear Feet	–

Wetland

Acres	–
Cubic Yards	–
Linear Feet	–

Classification System Name (if known):	–
Classification(s):	–

Additional Direct and Indirect Impact Information

Direct Impact Description: *Describe the nature and extent of temporary and permanent impacts to waters of the state. Attach map(s) that clearly depict the anticipated area of direct impact.*

0.04-acre of NWW-1a, NWW-1b, and part of NWW-1c would be permanently filled in during grading to create a level area for the construction of the battery energy storage system and substation portions of the Project.

0.19-acre of NWW-5, NWW-2, Swale-1, and Swale-3 could be temporarily impacted during the construction of the gen-tie (due to potential pull areas) and the trenching of the underground optical ground wire use for telecommunication by the project. None of the tower pads of access roads to the pads would impact the features in the area.

See Attachment B for a figures depicting the project's impact on jurisdictional waters.

Indirect Impact Description: *Indirect impacts could be those that are reasonably foreseeable outside of the direct impact area, or that occur later in time, that may have an adverse effect on water quality. Examples of indirect impacts could include fluctuating or disturbed water levels, climate change adaptation, and disturbed habitat connectivity corridors.*

Describe potential impacts to water quality from the project discharge. For example, describe increased turbidity, settleable matter, or other pollutants that may affect beneficial uses associated with the proposed project area. Attach map(s) that clearly depict the anticipated area of indirect impact, as feasible.

During Construction: Potential temporary indirect impacts to the drainages in the project site and downstream waters could result from construction activities and will include potential impacts from the generation of fugitive dust and the potential introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration and transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/ jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats. However, during construction, erosion-control measures will be implemented as part of the storm water pollution prevention plan (SWPPP) for the Project. Because the entirety of the Project development footprint will be graded at one time but construction will occur over time in phases, the erosion measures will be maintained until all graded areas are constructed/landscaped. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate the implementation of best management practices to reduce or eliminate construction-related pollutants in the runoff, including sediment, for all exposed soils.

During Operation: Once constructed, the proposed BESS facility will result in a substantial increase in impervious surfaces at the site, currently entirely pervious, which could potentially result in discharge of polluted stormwater runoff. Potential sources of polluted runoff include incidental spills of petroleum products and hazardous substances from maintenance vehicles and equipment. The proposed substation and BESS will be constructed on a raised pad and runoff from this area will drain southwest into catch basins located across the site. A storm sewer network will route water from the catch basins into underground infiltration chambers and infiltration trenches. Infiltration trenches along the southern end of each drainage area connected to the chamber system will aid in meeting the infiltration volume

requirement. The infiltration facilities will be sized to store and infiltrate the difference in runoff between existing and proposed conditions up to the 50-year 24-hour storm event for the two (2) drainage areas on site.

Each gen-tie pad will manage stormwater runoff using shallow infiltration basins.

Cumulative Impacts: *Provide a brief list/description, including estimated adverse impacts, of any projects implemented by the applicant within the last five years or planned for implementation by the applicant within the next five years that are in any way related to the proposed activity or that may impact the same receiving water body(ies) as the proposed activity. For purposes of this item, the water body extends to a named source or stream segment identified in the relevant Basin Plan. (CCR § 3856(h)(8).)*

The applicant has not had any projects in the region in the past five years and does not have any currently planned in the next five years.

Depending on the quantity of new or replaced impervious surface area resulting from the project, a post-construction stormwater control plan and/or an operations and maintenance plan may be required to mitigate potential post-construction stormwater impacts. The plan may include drainage maps, detailed designs for Low Impact Development or other post-construction stormwater treatment and control measures, and design calculations. Contact Water Board staff for specific criteria.

Does the proposed project create or replace impervious surface? Yes ☒ No ☐

If yes, provide the total impervious surface area created or replaced in square feet:
2,487,276

Section Eight: Avoidance and Minimization Measures

Alternatives Analysis:

Has an alternatives analysis been prepared? Yes ☒ No ☐

Does the U.S. Army Corps of Engineers require an alternatives analysis for this project? Yes ☐ No ☒
If yes, submit alternatives analysis documentation consistent with that provided to the Corps.

If an alternatives analysis is not provided, indicate which Procedures section IV.A.1.g exemption applies and include any relevant supporting information, if needed (e.g., watershed plan, relevant permit number, etc.**):**

Not Applicable

Check which Procedures section IV.A.1.h alternatives analysis tier applies to the project:
Water Board staff will evaluate the project information to verify the appropriate alternatives analysis tier:

Tier 1: ☐
Tier 2: ☐
Tier 3: ☒

Avoidance and Minimization Measures

Describe the efforts to avoid and minimize direct impacts to waters of the state including actions/BMPs to be implemented during construction to avoid and minimize impacts including, but not limited to, preservation of habitats, erosion control measures, project scheduling, flow diversions, etc.

A description may include actions or methods proposed for erosion control, including winterization strategies to stabilize bare soils and revegetation proposals. A map may be included to indicate the approximate location and area of soil, land, and vegetation disturbance, and proposed erosion and sediment control best management practices.

Reference the Procedures' state supplemental Dredge or Fill Guidelines, subpart H for potential actions to minimize adverse impacts to waters of the state.

Direct Impact Avoidance and Minimization:

Prior to commencement of ground disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

The Project's grading plans will include details on the location and type of BMPs necessary to reduce the potential for Project-induced erosion and scour, including temporary BMPs to be implemented during construction (per the statewide Construction General Permit), and permanent BMPs to be installed and maintained (per the County BMP Design Manual). The exact location and type of temporary BMPs to be installed during construction depend on site-specific conditions, construction schedule, and proposed activities, all of which are outlined in the construction SWPPP that will be prepared for the Project. Typical temporary BMPs used for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sand bags, construction road stabilization, and stabilized construction entrances. As the Project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP ensure that site-specific conditions are taken into consideration when developing construction SWPPPs, that personnel developing and implementing construction SWPPPs are qualified, and that BMPs are adequately monitored and maintained.

Indirect Impact Avoidance and Minimization:

See direct impact avoidance and minimization measures.

Water Quality Monitoring, Diversions and Dewatering

Does the proposed project include any dewatering, work in standing or flowing water, and/or constructing diversions of water?
Yes ☐ **No** ☒

Section Nine: Ecological Restoration and Enhancement Projects (EREPs)

Is this application for a project that meets the definition of an Ecological Restoration and Enhancement Project (Procedures section V)?
Yes ☐ **No** ☒

Section Ten: Restoration of Temporary Impacts

If temporary impacts are proposed, applicants are required to submit a draft restoration plan for a complete application. Temporary impact restoration includes activities that are undertaken to restore the temporarily impacted area to pre-project conditions. A draft restoration plan should outline design, implementation, assessment, and maintenance activities. When active restoration is proposed, components of a draft restoration plan should include project objectives, plans for grading impacted areas to pre-project contours, a planting palette with plant species native to the area, seed collection locations, an invasive species management plan. Maintenance and assessment components of a draft restoration plan often includes performance measures, performance standard descriptions, attainment objectives, and timing proposed to reach attainment objectives. When passive restoration is proposed, a draft restoration plan should include an explanation of how passive restoration will restore the area to pre-project conditions, assessment components, and an estimated date for expected restoration.

If the draft restoration plan is part of a larger document, identify the specific section and page number where the requested information may be found in the attached document in the text box provided. If restoration of temporary impacts will occur through natural ecological processes, provide that information in the text box below.

Restoration Plan:

Is a restoration plan attached? **Yes** ☐ **No** ☒

Describe the restoration plan and/or indicate where information is located within an attachment:

Prior to ground disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area, and short-joint beavertail transplant location, and will outline detailed performance standards and monitoring requirements for each; following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the CEC prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 32 acres within the Conservation Area that includes 0.19 acres of ephemeral streams. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

Section Eleven: Compensatory Mitigation

Compensatory mitigation means the restoration, establishment, enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved (Procedures Appendix A, Subpart J § 230.92). **When compensatory mitigation is required, a draft compensatory mitigation plan is required for a complete application.**

Proposed Compensatory Mitigation. *Complete the table below for each aquatic resource type proposed as compensatory mitigation; if more than two aquatic resource types will be provided, attach additional tables to your application.*

Proposed Compensatory Mitigation Type:	☒ Mitigation Bank ☐ In-Lieu Fee Program ☐ Permittee Responsible	
Aquatic Resource Type:	☐ Lake/Reservoir ☒ Stream Channel ☐ Ocean/Bay/Estuary	☐ Riparian Zone ☐ Vernal Pool ☐ Wetlands
Mitigation Method:	☒ Establishment ☐ Re-establishment ☒ Rehabilitation	☒ Enhancement ☐ Preservation ☐ Unknown
Quantity for the Selected Mitigation and Resource Type:	Acres: **0.66** Linear Feet: TBD	

Draft Compensatory Mitigation Plan
Using a watershed approach, a draft compensatory mitigation plan should be provided and be consistent with the requirements listed in Procedures Appendix A, Subpart J, and contain the items listed in section IV.A.2.b of the Procedures. For mitigation bank or in-lieu fee program proposals, only the first three items below are required (i, ii, and iii). For permittee responsible mitigation, items one through seven are required. Item eight (climate change assessment) is required on a case-by-case basis; you may contact Water Board staff to determine if a climate change assessment will be required for your proposed mitigation project. **Indicate the attached document name and page number where each draft compensatory mitigation plan item may be found:**
i. A watershed profile for the project evaluation area for both the project activity and the proposed compensatory mitigation location (section IV.A.2.b.i). The project is within the Kentucky Springs Canyon (HUC 180701020102), Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the project overlapping into the Arrastre Canyon – Santa Clara River subwatershed. The Peterson Ranch Mitigation Bank drains into both the Santa Clara River and Antelope-Fremont Valley watersheds.

ii. An assessment of the overall condition of aquatic resources proposed to be impacted by the project and their likely stressors, using an assessment method approved by the Water Boards (section IV.A.2.b.ii). See Attachment D for a description of the biotic and abiotic conditions of the impacts being impacted by the project. The streams are ephemeral features in the upper of the watershed so stressors are limited.
iii. A description of how the project impacts and compensatory mitigation would not cause a net loss of the overall abundance, diversity, and condition of aquatic resources, based on the watershed profile. If the compensatory mitigation is located in the same watershed as the project, no net loss will be determined on a watershed basis. If the compensatory mitigation and project impacts are located in multiple watersheds, no net loss will be determined considering all affected watershed collectively. The level of detail in the plan shall be sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to the project (section IV.A.2.b.iii). ***Include document name and page number.*** The project proposes to mitigate temporary and permanent impacts to ephemeral at 3:1 at the Peterson Ranch Mitigation Bank and re. The bank has higher quality waters including alluvial fan, wetland and riparian habitats.

Compensatory Mitigation Contact Information:

Name of Mitigation Bank or In-Lieu Fee Program:	Petersen Ranch Mitigation Bank
Service Area:	The bank drains into both the Santa Clara River and Antelope-Fremont Valley watersheds, resulting in an expansive wetland/riparian service area that includes portions of Los Angeles, Kern, Ventura, and San Bernardino counties.
Contact Name:	Marlene Tyner-Valencourt
Contact Phone:	858-682-2699
Contact Email:	tyner-valencourt@wra-ca.com
Mitigation Location County:	Los Angeles
Mitigation Site Latitude:	34.657542°
Mitigation Site Longitude:	-118.345673°

Section Twelve: Legally Responsible Person Attestation and Optional Duly Authorized Representative Assignment

The attestation below must be signed by the Legally Responsible Person (LRP).

1) **LRP eligibility is as follows:**

   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
      i. A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function; or
      ii. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

   c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. This includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of the U.S. EPA).

Legally Responsible Person Attestation

I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in accordance with a process designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Legally Responsible Person Name (Not the DAR)

X 

Legally Responsible Person's Signature

2) **DAR assignment is as follows (optional):**

   a. The authorization shall specify that a person designated as a DAR has responsibility for the overall operation of the regulated facility or activity, such as a person that is a manager, operator, superintendent, or another position of equivalent responsibility, or is an individual who has overall responsibility for environmental matters for the company.

Optional Duly Authorized Representative (DAR) Assignment
I hereby authorize **Garrett Lehman** to act on my behalf as the DAR in the processing of this application, and to furnish upon request, supplemental information in support of this permit application. Print Legally Responsible Person Name (not the DAR)
X  Legally Responsible Person's Signature

Section Thirteen: Fee Information

Fee amounts are determined according to the Cal. Code Regs., tit. 23, § 2200(a)(2) fee schedule (https://govt.westlaw.com/calregs/Document/IEEE14760D45A11DEA95CA4428EC25FA0?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.DefaDef) and are subject to change.

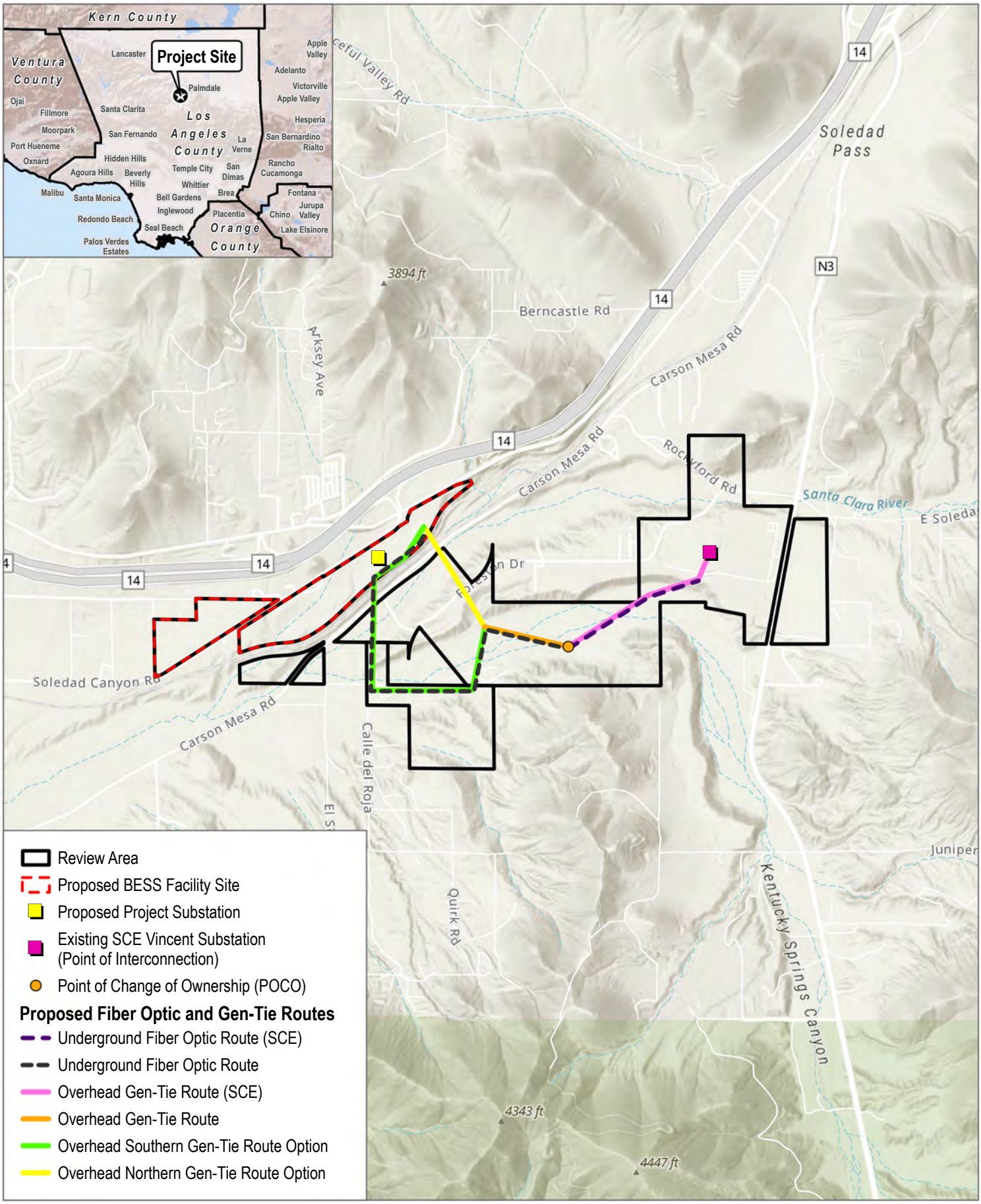
Submit the Application Fee based on the activity type and according to the appropriate fee category. Application fees are required to determine an application complete. Additional Project and/or Annual Fees may be imposed upon application review.

An excel fee calculator (https://www.waterboards.ca.gov/resources/fees/water_quality/docs/dredgefillcalculator.xlsm) may be used to estimate fees for budgeting purposes only.

Fees may be paid online or by check. Information on how to make an online payment is available at the State Water Board's webpage (https://www.waterboards.ca.gov/make_a_payment/). If fees are paid online prior to application submission, attach payment receipt to this application. Make checks, money orders, and cashier checks payable to the State Water Resources Control Board. Mailed payments should be attached to the application and remitted to the appropriate Water Board. See the Staff Directory (https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wqc_staffdir.pdf) for a list of State and Regional Water Board addresses.

Table for Internal Use Only	
Date Received	**Reg Measure ID**
WDID No.	**ECM Handle**
Check No.	**Check Amount**
Place ID	

Attachment B
Figures



SOURCE: World Topographic

DUDEK

0 1,000 2,000 Feet

Regional Map

Prairie Song Reliability Project

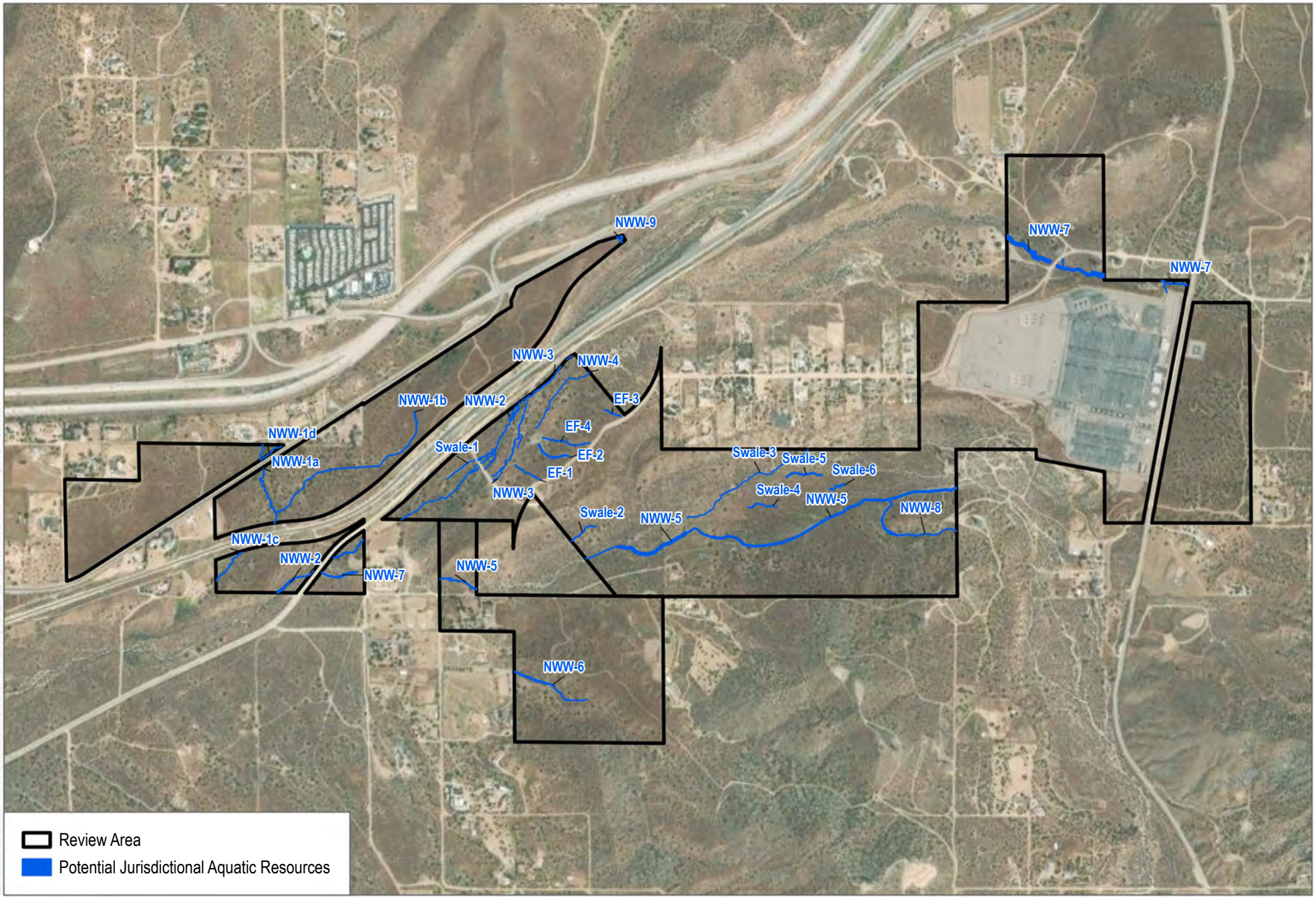
SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

DUDEK

0 500 1,000 Feet

Project Site Plan

Prairie Song Reliability Project



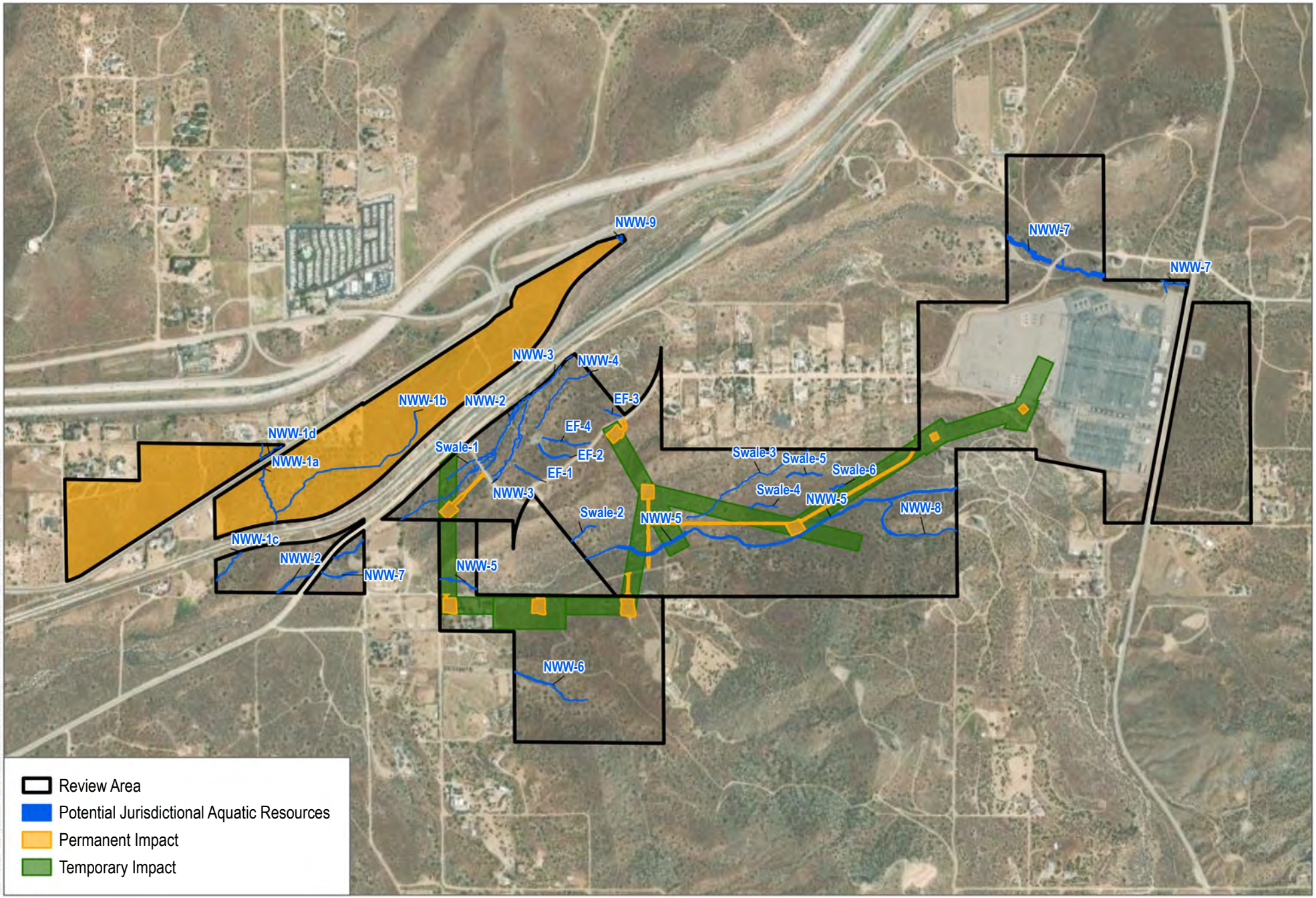
SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

Waters of the State

Prairie Song Reliability Project



SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 1

Jurisdictional Waters Impact

Prairie Song Reliability Project

Attachment C
Project Description

Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt (MW) Prairie Song Reliability Project (Project) located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, an on-site Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE)-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round as well as supported by on-site O&M staff seven (7) days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

Project Location

The Project will be located in unincorporated Los Angeles County (County), California south of State Route 14 approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Project site is within the Los Angeles County-designated Community Standard District of Action. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor's Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land sandwiched between two (2) existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority (LACMTA)-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection (POI) at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.1 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed

aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. The Project's interconnection facilities will be located within the SCE Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

The nearest municipality to the Project site is the City of Palmdale, which is located approximately four (4) miles to the northeast. There are a few single-family residences adjacent to the BESS facility Site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line.

Project Objectives

The Project's principle Basic Objectives include the following:

- Construct and operate an up to 1,150MW BESS facility in Los Angeles County with an interconnection utilizing available system capacity at the existing SCE Vincent Substation to balance intermittent renewable generation and serve as an additional capacity resource that will enhance grid reliability.
- Provide new energy storage capacity to assist California electric utilities in meeting obligations under California's Renewable Portfolio Standard Program and Senate Bills 100 and 1020, which require renewable energy sources and zero-carbon resources to supply 60% of all retail sales of electricity to California end-use customers by December 31, 2030, 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% of all retail sales of electricity to California end-use customers by December 31, 2040, and 100% of all retail sales of electricity to California end-use customers by December 31, 2045.
- Provide new energy storage capacity to assist the State of California in meeting its goal of reducing statewide annual greenhouse gas emissions from the electric sector to 25 million metric tons by 2035.
- Provide storage capacity to help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation predominately from emissions free power sources and deliver it back to the grid when demand exceeds real-time generation supply.
- Offer energy storge to curtail dispatch and displace the need for additional fossil fuel based generating stations needed to serve peak demand periods when intermittent renewable sources may be inadequate or unavailable. The additional storage capacity may allow for the deferral or avoidance of regional transmission facilities.
- Provide energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting obligations under the California Public Utilities Commission's (CPUC's) Mid-Term Reliability Procurement and upcoming Reliability and Clean Power Procurement Program Requirements.
- Develop an electricity storage facility in close proximity to a utility grid-connected substation with existing capacity available for interconnection for charging and discharging and the ability to deliver capacity to the load to minimize environmental impacts.
- Secure a location to allow the stored energy to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades.

- Construct and operate a battery energy storage facility in Los Angeles County, resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.
- Locate and gain site control of site large enough and well-suited to support development of the Project's 1,150MW and up to 9,200MWh battery energy storage.
- Develop an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation, to avoid and minimize potential impacts from long 500kV gen-tie lines.
- Locate a site to accommodate a gen-tie line of reasonable length to the POI and the ability to deliver power to the Los Angeles Basin local reliability area during peak demand.
- Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.

Project Components

The Project will include construction, O&M, and eventual decommissioning of an up to 1,150MW BESS. A 500kV gen-tie connecting the Project substation to the POI within the existing SCE Vincent Substation, will facilitate charging and discharging to the electrical grid.

General Facility Description, Design, and Operation

The BESS facility will include the following primary components:

- Battery Energy Storage System (BESS) Enclosures
- Power Conversion Systems (PCS)
- Medium voltage (MV) Collection System
- Project Substation, Control Building, and Telecommunications Facilities
- Access Roads
- Laydown Yards
- Stormwater Detention Facilities
- Site Security and Fencing
- Fire Detection and Suppression System
- Operations and Maintenance Building
- Existing Distribution Line Reroute

Project components are described in the following subsections. Figure 1, Project Site Plan, shows the Project layout. Table 1 summarizes the preliminary dimensions of major BESS facility components, and Table 2 summarizes the preliminary footprint/disturbance acreage associated with the BESS facility.

Table 1. Preliminary Dimensions of Major BESS Facility Components

Component	Quantity	Approximate Dimensions
BESS Enclosures	2,035*	20 ft × 8 ft × 9.5 ft (L × W × H)
PCS	517*	20 ft × 8 ft × 9.5 ft (L × W × H)
MV Collection system	—	Buried in trenches up to 10 ft × 10 ft (W × D)
Project Substation Area	1	2,545 ft × 440 ft (L × W); seven (7) 150 ft (H) (lightning masts)
Control Building	1	27 ft W × 95 ft L × 10 ft H (to ceiling)
Access Roads	—	26 ft (W) internal radii 55 ft minimum
Fire Water Tanks	2	33 ft in Diameter × 16 ft H
Laydown Yards	3	Variable
Stormwater Detention Facilities	2	Variable
Security Wall	—	Minimum 8 ft H block wall topped with 1 ft of barbed/razor wire
Operations and Maintenance Building	2	20 ft × 60 ft × 15 ft (L × W × H)

Notes: BESS = battery energy storage system; PCS = power conversion system; MV = medium voltage.

* The number of BESS enclosures and PCS units will depend on the manufacturer selected. The total number of BESS enclosures and PCS units may increase or decrease in the final design. It is also possible that the BESS units ultimately procured may incorporate the PCS units within the BESS enclosures.

Table 2. Preliminary Footprint of BESS Facility

Component	Permanent Disturbance
BESS Yards	30.0 acres
Project Substation	23.1 acres
Access Roads	7.9 acres
Laydown Yards	1.0 acres
Stormwater Detention Facilities	4.1 acres
*Other**	*4.7 acres*
Total+	**70.8 acres**

Notes: BESS = battery energy storage system.

* Other areas include maximum grading limits. The analyses assume that all areas used for the BESS facility are permanently disturbed.

\+ The total permanent disturbance acreage is a conservative estimate, and final designs may require fewer acres. Underground components within the BESS facility will be located within the footprint of above ground disturbance areas.

Battery Energy Storage System

The energy storage facility will utilize a modular and containerized BESS. There are several battery cell technologies commercially available, with one of the most common presently being lithium iron phosphate (LFP) cells, or similar. LFP technology is considered one of the safest, most efficient, and commercially financeable energy storage technologies available on the market. The initial Project concept has been developed assuming an LFP technology. By the time the Project reaches the procurement stage, it is possible for other battery cell technology with proven safety and performance records to be suitable for the Project. Although the number and dimensions of the containers may change (as it does between LFP technology providers), the technology ultimately procured will result in potential environmental impacts substantially similar to, or less than, those analyzed based on this Project Description. The Sungrow Power Titan II has been selected for this project application as a representative BESS

enclosure. Sungrow Power Titan II design and operation information is used in this application to set maximum potential impact envelopes, for site design and modeling analysis, and to set baseline safety standards. A final manufacturer for the BESS enclosures will be selected during the detailed design process post-certification. The Project will provide defensible space by setting back all BESS enclosures at least 100 feet from the property boundary.

The BESS enclosures will be prefabricated off site and arrive at the site ready to be installed and commissioned. Each modular BESS enclosure will include battery packs on racks, a battery management system, fire detection systems, thermal management systems (either liquid or air cooled depending final selected technology), and ancillary power electronics within a specialized steel-framed, non-occupiable container. The BESS enclosures will not exceed 15 feet in height.

Over the life of the project the storage capacity of the battery cells will naturally degrade. The project will implement an augmentation strategy to maintain the contractually required capacity of the system. Augmentation will entail either a capacity maintenance approach of adding/replacing individual battery modules in the existing BESS yard or designing the BESS system to incorporate space for additional BESS enclosures for later augmentation. The Project design and analysis front loads the work for the Project augmentation and assumes that it will install the end-of-life capacity at the start of construction. This assumption is made to capture augmentation impacts during construction instead of trying to assume the augmentation schedule for the Project. Equipment type/specifications, capacity agreements, and tax incentives can all change how and when augmentation is completed. Front loading augmentation to occur during construction creates a conservative case for the analysis of potential impacts that could arise from augmentation and sets a maximum impact envelope for the Project. During Project operations, the Project analysis assumes that one (1) crane and one (1) forklift will operate in support of augmentation once every 3 to 5 years for 8 hours per day.

Power Conversion System

A PCS is a packaged and integrated, or assembled, system consisting of a bi-directional inverter, MV transformers, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, harmonic filters, equipment terminals, and a connection cabling system. A PCS functions to both convert between DC/AC and change the voltage level from the MV collection voltage to the working voltage of the BESS enclosures.

The PCS will convert electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. Each PCS will also include transformers that convert the AC side output of the inverter between low and medium AC voltage to increase the overall efficiency of the BESS. Inverters within the PCS units will be unattended systems designed to operate in all conditions. The inverters will be monitored and controlled remotely, and there will be on-site disconnects for use in case of an emergency or a situation requiring unscheduled maintenance.

PCS units will be installed on concrete foundations or steel piles and connected to multiple BESS enclosures with wiring and cables installed underground. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association-rated enclosures.

MV Collection System

The MV collection system will include multiple components that connect the PCS units to the Project substation including underground conductor circuits, switchboards, switchgear, and panels at 34.5kV. The conductors for the MV collection system will be installed underground during construction using trenching.

To connect the portion of the BESS yard north of Soledad Canyon Road to the Project substation, which is located south of Soledad Canyon Road, a portion of the MV collection system will need to be located underground within Soledad Canyon Road. An 180-foot-wide underground corridor will house the MV collection system as it traverses the road. The MV collection lines under Soledad Canyon Road will be installed using horizontal directional drilling, will be inside six (6) in conduit, covered by a minimum of 42 inches, and spaced 10 feet apart.

Project Substation

The Project substation will include six (6) main power transformers (MPTs). When the BESS facility is charging, power from the regional electric transmission grid will be stepped down from 500kV to 34.5kV and sent from the Project substation through the MV collection system and PCS units into the battery packs within the BESS enclosures. When the BESS facility is discharging, power from the battery packs within the BESS enclosures will be sent to the PCS units, stepped up to 34.5kV, and transported to the Project substation through the MV collection system before being stepped up to 500kV at the MPTs and delivered back to the regional electric transmission grid. A control building will be installed within the Project substation area and contain an energy management system, metering, and telecommunication equipment for communication with SCE/California Independent System Operator (CAISO) facilities and to support remote Project operations monitoring. The Project substation area will also include seven (7) static masts, up to 150 feet tall, for lightning protection.

BESS Facility Access Roads

The Project's roadway system will utilize existing roads wherever available and feasible and include new facility access roads and driveways, a perimeter road, and internal access roads. All new access roads, driveways, internal and perimeter roads will be bladed, compacted, and surfaced with asphalt. All internal roadways and private driveways will be constructed to meet access requirements for construction, O&M, and emergency response.

Laydown Yards

The Project will include up to three (3) laydown yards for equipment and material staging and storage during construction. These areas will also be used for worker parking during construction. The primary laydown yard will be located in the northernmost portion of the BESS site. The primary laydown yard will be bladed, compacted, and surfaced with aggregate, while an additional laydown yard to facilitate construction of the gen-tie line will be cleared of vegetation and surfaced with aggregate or other soil stabilizing materials. Landscape fabric may also be installed under the surface of all laydown yards to prevent vegetation growth, if required to comply with fire prevention standards. The O&M building and required number of parking spaces for O&M staff will be constructed within the primary laydown following construction of the BESS facility components.

The proposed Project's preliminary layout, earthwork volumes, and Project component dimensions assumed for environmental analyses in subsequent chapters are conservatively large to allow for design flexibility within the project footprint and Project schedule preservation.

Stormwater Detention Facilities

Regulatory standards require that volumes and flow rates of stormwater discharge after construction are not to exceed pre-development conditions. Stormwater generated on-site will flow to underground stormwater detention chambers located in the southwestern portions BESS facility site (Figure 1, Project Site Plan). Stormwater treatment and storage sizing will be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with applicable regulations. After a rainfall event, stormwater will infiltrate into the subgrade underneath the stormwater chambers. If the design capacity of the stormwater chambers is exceeded, however, stormwater may be stored in available upstream areas such as catch basins, infiltration trenches, or drain as sheet flow from the surface.

Site Security

The BESS facility site will be enclosed with a minimum 8-foot-tall block wall topped with 1 foot of three-strand barbed wire or razor wire. The wall will be installed on the outside of the perimeter roads. The wall will be required to prevent unauthorized access and to comply with human health and safety regulations. Gates will be installed at various access points along the wall and equipped with locks and knox boxes to allow for authorized personnel (e.g., transmission service provider, O&M staff, emergency response) to access appropriate portions of the BESS facility site. The wall will serve a dual purpose for security and off-site noise reduction.

Lighting will only be in areas where it is required for safety, security, or operations. Controlled security lighting no more than 28 feet tall will be installed at the Project substation and around the BESS yards, in accordance with applicable requirements and regulations. Permanent motion-sensitive, directional security lights will be installed to provide adequate illumination around the substation area and points of ingress/egress. All lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties, compliant with applicable codes and regulations. Security cameras will be placed on site and monitored 24/7.

Fire Detection and Suppression System

Fire protection will include multiple fire detection systems on-site and within the individual BESS enclosures. Each BESS enclosure will have a fire rating in conformance with the California Fire Code 2022. In addition, each BESS enclosure will contain an onboard battery management system that monitors the appropriate state of individual battery cells and relays information 24/7 and an internal Fire Alarm Control Panel that will identify which units have incidents and will notify first responders. In the event of an anomaly, the system is designed to shut down and mitigate the hazard.

The Project's fire protection design will comply with California Fire Code 2022, Section 1207 Electrical Energy Storage Systems, which adopts the National Fire Protection Association's Standard for the Installation of Stationary Energy Storage Systems (NFPA 855). BESS enclosures will be Underwriters Laboratories (UL) listed, tested, and certified to the most rigorous international safety standards. UL independently tests equipment for compliance with the latest fire safety code requirements, and the methods were developed to minimize fire risk and safety concerns about battery storage equipment raised by fire departments and building officials in the United States.

Faults, mechanical damage, or manufacturing defects in lithium-ion batteries can cause thermal runaway, which can lead to fires or other hazards. Should a thermal runaway event occur, the BESS enclosures are designed and constructed in such a way that fire will not propagate from one enclosure to a neighboring enclosure. The Project's

BESS enclosures, as part of the testing and listing process, will be subjected to destructive testing including fire testing. The Project's BESS enclosures will include the following UL certifications:

- UL 1642 – Standard for Lithium Batteries (cell level certification).
- UL 1973 – Standard for Batteries for Use in Stationary Applications (module level certification).
- UL 9540 – Standard for Energy Storage Systems and Equipment (system level certification).
- UL 9540A – Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.
- IEC 62619 – Standard for Battery Safety in Stationary Applications.

The BESS facility ingress/egress and circulation will be designed to comply with LA County's Draft fire regulations. Each portion of the BESS facility (the BESS yards north and south of Soledad Canyon Road.) will have primary and secondary access points. The BESS yard north of Soledad Canyon Road. will have a primary access point in the southwest corner of the site and a secondary access point in the northwest corner of the site, near the O&M buildings and laydown yard. The BESS yard south of Soledad Canyon Road. will have a secondary access point directly across from the secondary access point for the northern BESS yard and a primary access point that is approximately 1,030 feet east of the secondary access point. There will also be an access point for the Project Substation that is approximately 340 feet east of the BESS yard primary access point, in the approximate middle of the Project area that is south of Soledad Canyon Road. All access points will have Knox boxes and will connect to roads that are 26 feet wide.

Water for fire defense will be provided via an on-site well that will serve two (2) 40,000-gallon water tanks. There will be a separate water tank and booster pump in each of the BESS yards. The water tanks will serve hydrants located throughout the BESS yards. Hydrants were specifically located to be no more than 300 feet apart throughout the BESS yards. The project commissioned a fire water supply assessment that concluded that the maximum amount of water necessary to fight a fire on the site would be 15,000 gallons. The project will provide 40,000 gallons of water at each BESS yard.

The fire water line system has been highlighted in PSR-BE-201. PSR-BE-201 shows the existing well in the south BESS yard and the water line connection to the water tank in that same yard (approximately 245 feet to the northeast of the existing well). The water tank and associated pumphouse serve as the distribution point for the fire water line. Three (3) lines leave the pumphouse. Two (2) fire water lines support the hydrant system in the south BESS yard. The loops follow the road and surround each of the BESS blocks. The third fire water line runs southwest along the northern road in the south BESS yard until it comes to the first responder secondary entrance. The fire water line then heads north and crosses Soledad Canyon Road along the northeastern side of the two (2) opposing first responder secondary entrances. Once in the north BESS yard, the fire water line heads back southwest along the southern road in the north BESS yard for approximately 1,030 feet. The fire water line then heads north and connects to the pump house and water tank in the north BESS yard. There are two (2) fire water lines that exit the pump house in the north BESS yard that serve the hydrants that are spaced along access roads and surround the BESS blocks.

The Los Angeles County Fire Department will review and comment on the facility fire protection and suppression plans.

Operations and Maintenance Building

O&M buildings will be constructed for the Project's anticipated 16 full-time operations staff and is planned to be in the easternmost portion of the BESS yard north of Soledad Canyon Road. The O&M buildings will include parking, outside equipment and laydown areas, basic offices, meeting rooms, washroom facilities and climate-controlled storage for certain equipment and materials. An existing groundwater well will provide water for washroom and a septic system will provide for sanitary facilities. The existing groundwater well is located south of Soledad Canyon Road on APN 3056-019-026. To serve the O&M buildings and fire water needs, which are located north of Soledad Canyon Road, an underground water line will be constructed from the existing groundwater well to the O&M buildings as shown in Figure 1, Project Site Plan. A portion of the water line will be located within Soledad Canyon Road as shown in Figure 1, Project Site Plan. The water line will run under Soledad Canyon Road along the northeast edge of the opposing first responder secondary access points between the north and south BESS yards. The water line will be covered by a minimum of 24 inches of material. The water line will be installed via horizontal directional drilling.

Existing Distribution Line Reroute

There is currently an SCE overhead electrical distribution line that bisects the southern portion of the BESS facility site. The distribution line consists of wooden poles with a cross bar carrying the distribution lines. The Project plans to reroute this line around the BESS facility site using similar distribution poles and wires. The Project will alter the existing distribution line route from where it enters the property on the south side of the BESS facility site. The Project will install approximately nine (9) poles similar to the existing poles, outside of the BESS facility site wall, along the southern and western boundary of the BESS facility site south of Soledad Canyon Road until they connect with Soledad Canyon Road. At Soledad Canyon Road, the new distribution line will tie into the existing distribution line at the western boundary of the southern BESS facility site.

Transmission and Interconnection Description, Design, and Operation

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.1-mile-long or 1.8-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure (see Figure 1, Project Site Plan, site layout Pole 10), and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize

the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Project components associated with transmission and interconnection facilities are described in the following subsections. Figure 2, Transmission Line Route, shows the gen-tie routes, scattered rural residences, scenic areas (scenic drives and the Los Angeles National Forest), and existing transmission lines within one (1) mile of the proposed routes. There are no parks or recreational areas within one (1) mile of the proposed routes. Table 3 summarizes the preliminary dimensions of major transmission components, and Table 4 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario).

Table 3. Preliminary Dimensions of Major Transmission Components

Component	Quantity	Approximate Dimensions
500kV Gen-Tie Line	1	Applicant Owned: North: 3,500 ft long / South: 7,300 ft long
		SCE Owned: 2,800 ft long
Substation Bay Dead-End Transmission Structure	1	Applicant Owned: 170 ft tall
		SCE Owned: n/a
Angled Dead-End Transmission Structure	up to 7	Applicant Owned: 175 ft tall to 195 ft tall
		SCE Owned: n/a
Tangent Delta Transmission Structure	1	Applicant Owned: 155 ft tall (Northern Gen-Tie Route) to 180 ft tall (Southern Gen-Tie Route)
		SCE Owned: n/a
Lattice Tower Transmission Structure	2	Applicant Owned: n/a
		SCE Owned: 234 ft tall to 243 ft tall
Conductors	1	Applicant Owned: North: 30,800 ft / South: 63,000 ft
		SCE Owned: 16,000 ft
Overhead Shield Wire	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 2,900 ft
Fiber Optic Cables on Gen-Tie Structures	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 2,900 ft
Fiber Optic Cables Underground	2	Applicant Owned: 12,000 ft
		SCE Owned: 5,700 ft
Transmission Structure Access Path	Varies	26 ft wide
Transmission Line Corridor	1	150 ft wide

Notes: kV = kilovolt; SCE = Southern California Edison; gen-tie = generation interconnection.

Table 4. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total	**3.62 acres**	**~23.63 acres**
SCE Portion		
Transmission Structure Pad	0.3 acres	—
Transmission Structure Access Path	0.5 acres	—
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	8.99 acres
SCE Total	**0.8 acres**	**8.99 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.

500kV Gen-Tie Line

The 500kV gen-tie line will originate at the Project substation within the BESS facility site and extend south and east, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, as close to perpendicular as possible, and then proceed northeast to the POI at the Vincent Substation. The Project proposes a Northern Gen-Tie Route and Southern Gen-Tie Route. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

The interconnecting 500kV transmission single-circuit configuration will be overhead. The gen-tie line will be constructed with either monopole tubular steel poles or steel lattice towers. Gen-tie structures will be at least 155 feet tall, with a maximum height of 243 feet. There will be a total of approximately one (1) monopole or steel lattice tower structures. The total number of gen-tie structures will be determined by the final design of the gen-tie line. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

The POCO will be located on APN 3056-015-023 (see Pole 10 within Figure 1, Project Site Plan). The POCO is the point where the conductors of the Generation Tie-Line are attached to the Last Structure, which will be connected on the side of the last project owned structure (Last Structure) facing Vincent Substation. The project shall own and maintain the Last Structure, the conductors, insulators and jumper loops from such Last Structure to the Interconnection Customer's Large Generating Facility. SCE will own and maintain the Vincent Substation, as well as all towers, transmission lines, circuit breakers, disconnects, relay facilities and metering within the Vincent Substation, together with the line drop, in their entirety, from the Last Structure to Vincent Substation. SCE will own the insulators that are used to attach the project-owned conductors to the Last Structure.

The conductor from the site to the POCO is planned to be triple bundle 795 Drake or equivalent. The conductor from the POCO to the Vincent Substation will be double bundle 2156 Bluebird or equivalent.

Table 3 includes the approximate number and dimensions of the different types of transmission structures that will be used.

Transmission Structure Access Path

Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. A transmission structure access path up to 26 feet wide will be located within portions of the transmission corridor outside of the BESS facility and Vincent Substation footprints and generally follow the centerline of the gen-tie.

Telecommunication Facilities

The facility will be designed with a comprehensive Supervisory Control and Data Acquisition (SCADA) System to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching leading to a SCADA system cabinet at the Project substation. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers.

The Project's SCADA system will interconnect to an external fiber optic network or fixed wireless service at the Project substation and will require installation of buried fiber optic cables underground or fixed wireless antennas. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers, so no additional disturbance associated with telecommunications is anticipated. As such, the Project will not require any substantial construction efforts regarding telecommunications facilities and structures. No relocation of existing telecommunication structures will occur.

Telecommunications equipment will be installed between the control building at the Project substation and the Vincent Substation to facilitate communication with SCE/CAISO facilities. To achieve communication requirements with the Vincent Substation, the project will involve the following:

- Install optical ground wire on the Generation Tie-Line to provide one (1) of three (3) telecommunication paths required for the line protection scheme, the remote terminal units. A minimum of eight (8) strands within the optical ground wire shall be provided for SCE's exclusive use into Vincent Substation.
- Install appropriate single-mode fiber optic cable from the Project Site to a point near the POCO to the Vincent Substation to provide the second telecommunication path required for the line protection scheme and the RAS. A minimum of eight (8) strands within the single-mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.
- Install appropriate single mode fiber optic cables from the Project Site to a point designated by SCE near the Vincent Substation to provide a third telecommunication path required for the Generation Tie-Line protection scheme. A minimum of eight (8) strands within the single mode fiber optic cable shall be provided

for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.

- Own, operate and maintain all three (3) telecommunication paths (including optical ground wire, any fiber-optic cables, and appurtenant facilities) up to the POCO.

In addition to the telecommunications equipment installed by the Project, SCE will install the following equipment:

- Lightwave, channel, and associated equipment (including terminal equipment), supporting protection and the remote terminal unit requirements at the Project Site and Vincent Substation for the interconnection of the Project. Notwithstanding that certain telecommunication equipment, including the telecommunications terminal equipment, will be located on the Interconnection Customer's side of the POCO, SCE shall own, operate and maintain such telecommunication equipment as part of the SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, from the Vincent Substation 500kV switchrack to extend the fiber optic cable and conduit into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) 4-foot × 4-foot × 6-foot vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, to extend the Project's second diverse telecommunications from the point designated by SCE near the SCE's Vincent Substation into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) vault to extend the Project's diverse telecommunications into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of the SCE's Interconnection Facilities.
- Install appropriate length of fiber optic cable, including conduit and vaults, from the point designated by the SCE to extend the Project's third diverse fiber optic cable to into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 950 feet of underground fiber optic cable and associated conduit, and one (1) foot × 4-foot × 6-foot vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of the Participating TO's Interconnection Facilities.

To meet these requirements, the Applicant and SCE will install one (1) of the three (3) fiber optic lines aboveground on the gen-tie structures. The two (2) other fiber optic lines will be installed underground within trenches anticipated to be up to four (4) feet wide within the Southern Gen-Tie Route corridor and separated by at least 25 feet. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. Where the underground fiber optic line leaves the BESS facility site it will be installed via horizontal directional drilling underneath the railroad tracks. Horizontal directional drilling is a trenchless construction technique used to install underground utilities like pipelines and conduits without disturbing the surface. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

Interconnection Facilities within Existing SCE Vincent Substation Footprint

To facilitate interconnection of the BESS facility to the electric transmission grid, SCE will need to install one (1) 500kV dead end structure, nine (9) 500kV coupling capacitor voltage transformers, three (3) 500kV line drops, three (3) line current relays, and one (1) 500kv line position which includes the following equipment: seven (7) 500kV circuit breakers, seven (7) 500kV disconnect switches, 84 insulators, and two (2) breaker failure backup relays. No additional network upgrades outside of the Vincent Substation are necessary to interconnect the project to the grid.

Transmission System Impact Studies

The Project will interconnect to SCE's transmission system within the CAISO planning area. CAISO identified two (2) potential Affected Systems from the QC12 Phase I Interconnection Study: California Department of Water Resources and Los Angeles Department of Water and Power.

The Applicant has contacted both potential affected systems and both have responded that the Project will not have any negative impact on their systems.

The Applicant filed an Interconnection Request with CAISO in the Cluster 12 Interconnection Request window. CAISO, in cooperation with SCE, prepared the Phase I Interconnection Study (January 15, 2020), and Phase II Interconnection Study (November 20, 2020). The Applicant entered into a Large Generator Interconnection Agreement with CAISO and SCE on January 28, 2022.

California Public Utilities Commission General Orders

Because SCE is an investor-owned electric utility, the SCE Improvements described above, are regulated by CPUC. CPUC General Orders (GO) cover regulatory requirements for investor-owned electrical utilities.

The Project will comply with applicable GOs, including GO 95 (Rules for Overhead Electric Line Construction) and GO 128 (Rules for Construction of Underground Electric Supply and Communications Systems).

Transmission System Design

Table 5, Transmission System Design/Safey and Nuisance Regulations, identifies transmission system design laws, regulations, ordinances, and standards; adopted local, regional, state, and federal land use plans; and leases and permits applicable to the Project.

The applicant plans on installing triple bundle 795 Drake or equivalent from the BESS to the POCO. Depending on the selected route, the length of the applicant's conductor will be either 30,800 feet for the Northern Route or 63,000 feet for the Southern Route. These lengths represent the total conductor length of all phases along the applicant's portion of the 500 kV route (North: 3,500 feet long/South: 7,300 feet long). In determining the line type, the Project assumed a Max Operating Temperature of 212 degrees Fahrenheit as well as the other inputs from the Phase II SCE design. The allowable ampacity of the original conductor was 1,485 amps. The current conductor design has an ampacity of 3,396 amps. Allowable ampacity affects how much energy the line can carry, so an increase in ampacity equates to an increase in carrying capacity. Triple bundle 795 Drake will be located vertically along monopoles in the applicant-owned portion of the gen-tie route.

SCE plans on installing double bundle 2156 Bluebird or equivalent from the POCO to the Vincent Substation. SCE will install approximately 16,000 feet of conductor on their towers. This length represents the total conductor length of all phases along the SCE portion of the 500 kV route (2,800 feet long). SCE has sized the double bundle 2156 Bluebird to meet the carrying capacity requirements for the Project and will locate the conductor vertically along tower in the SCE-owned portion of the gen-tie route.

Table 5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
CPUC GO-95	Rules for Overhead Electric Line Construction
NESC	National Electrical Safety Code (NESC)
GO-128	Rules for Construction of Underground Electric Supply and Communication Systems
GO-131-D	Rules for Planning and Construction of Electric Generation Line and Substation Facilities in California
Decision 93-11-013	California Public Utilities Commission (CPUC) EMF Decision
CPUC GO-52	Construction and Operation of Power and Communication Lines for the Prevention or Mitigation of Inductive Interference
ASCE 48-19	Design of Steel Transmission Structures
ASCE 74	Guidelines for Electrical Transmission Line Structural Loading
ASCE 113	Substation Structure Design Guide
FAA 70/7460	Proposed Construction and/or Alteration of Objects that May Affect the Navigation Space
IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System
IEEE 525	Guide for the Design and Installation of Cable Systems in Substations
IEEE 605	Guide for Bus Design in Air Insulated Substation
IEEE 691	Guide for Transmission Structure Foundation Design and Testing
IEEE 738	Standard for Calculating the Current-Temperature Relationship of Bare Overhead Conductors
IEEE 1127	Guide for the Design, Construction, and Operation of Electric power Substations for Community Acceptance and Environmental
IEEE 1427	Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations
IEEE 1863	Guide for Overhead AC Transmission Line Design
47 CFR 15.25, “Operating Requirements, Incidental Radiation	Prohibits operations of any device emitting incidental radiation that causes interference to communications; the regulation also requires mitigation for any device that causes interference
Title 14 CFR, Part 77, “Objects Affecting Navigable Airspace”	Describes the criteria used to determine whether a “Notice of Proposed Construction or Alteration” (FAA Form 7460-1) is required for potential obstruction hazards.
FAA Advisory Circular No. 70/7460-1M, “Obstruction Marking and Lighting”	Describes the FAA standards for marking and lighting of obstructions as identified by FAA Regulations Part 77

Transmission Line Safety and Nuisance

The electrical effects of high-voltage transmission lines fall into two (2) broad categories: corona effects and field effects. Corona is a luminous discharge due to ionization of the air surrounding a conductor around the surface of an energized conductor and associate hardware when the voltage gradient exceeds a certain critical value during certain conditions. Corona may result in radio and television reception interference, audible noise, light, and production of ozone. Corona is a function of the voltage of the line, the diameter of the conductor, and the condition of the conductor and hardware surface. Corona performance is predicted using empirical equations from high-voltage line measurements. The methodology has been validated for predicting corona-induced noise and interference. The electric field gradient is the rate at which the electric field changes and is directly related to the line voltage and the geometric configuration of the line. Field effects are the voltages and currents that may be induced in nearby conducting objects. A transmission line's inherent electric and magnetic fields cause these effects. Operating power lines produce electric and magnetic fields commonly referred to as an electromagnetic field (EMF). The EMF produced by the AC electrical power system in the U.S. has a frequency of 60 hertz, meaning that the intensity and orientation of the field changes 60 times per second. The electric field (EF) is expressed in V/m or kV/m, and magnitudes are often given in root-mean-square (rms) units. Magnetic field is generated by electrical currents. Transmission lines create time-varying magnetic fields measured in Gauss (G) or milligauss (mG). Electric fields are calculated using an imaging method, while magnetic fields are obtained by summing fields from currents in all conductors, assuming balanced three-phase currents

Corona from a transmission line may result in the production of audible noise (AN), radio influence voltage (RIV) and television interference.

The electric field gradient is greatest at the surface of the conductor. Large-diameter conductors have lower electric field gradients at the conductor surface and, hence, lower corona than smaller conductors, everything else being equal. Also, irregularities (such as nicks and scrapes on the conductor surface) or sharp edges on conductors and insulators hardware concentrate the electric field at these locations and, thus, increase corona at these spots. Similarly, contamination on the conductor surface such as dust or insects can cause irregularities that are a source for corona. Raindrops, snow, fog, and condensation are also sources of irregularities.

Audible Noise, Corona Losses, and EMF Model Results

EMFs, audible noise, and radio and television interference near power lines vary regarding the line design, line loading, distance from the line, and other factors. Electric fields, corona, audible noise, and radio and television interference depend on line voltage and not on the level of power flow. The calculations were made under maximum operating voltage. The line design includes triple-bundled 795 thousands of circular mils (kcmil) ACSR Drake conductors on monopole structures and double-bundled 2156 kcmil ACSR Bluebird conductors on SCE lattice towers. Table 6 shows the audible noise under fair weather, max audible noise under foul weather, and the Environmental Protection Agency's 55 day–night average sound level criteria.

Table 6. 500kV Audible Noise

Gen-Tie Design	Max Audible Noise at Edge of Right of Way (dBA)	Normal Audible Noise at Edge of Right of Way (dBA)	EPA 55 day-night sound level criteria (dBA)
SCE Owned Lattice Tower	55.1	30.1	48.5
Delta Monopole	51.0	26.0	
Deadend Monopole	49.6	24.6	

Notes: gen-tie = generation interconnection; dBA = A-weighted decibels; SCE = Southern California Edison.

Corona losses are estimated to range from .52 Watts/m -.913 Watts/m under fair weather conditions and 74.5 Watts/m – 130.5 Watts/m under foul weather conditions. One (1) study calculated radio interference induced by corona from a 500kV three-phase transmission line at approximately 45 decibels above 1 microvolt per meter (dB[1µV/m]3; henceforth referred to as dB) at approximately 88 feet (27 meters) away from the outermost phase of a transmission line (Tejada-Martinez et al. 2019). Measured radio interference was generally similar to calculated values particularly for conductors strung on towers horizontally but was found to be closer to 50 dBuV/m for conductors strung on towers in a vertical manner. Two (2) other studies of 500kV transmission lines at the same distance from center phase calculated radio interference at approximately 30 dB to generally below 60 dB, except for when subconductors were spaced closely together, depending on the geometric parameters (e.g., conductor size, conductor spacing) (El Dein 2013; Phaiboon et al. 2000). As discussed above, wet weather and other conditions (e.g., debris build up on conductors) can affect corona and therefore radio interference, with higher interference anticipated in wetter weather. The 500kV transmission lines would be engineered and installed so as to avoid harmful interference with radio or other transmissions.

The magnetic field is proportional to line loading (amperes), which varies as demand for electrical power varies and as generation from the generating facility is changed by the system operators to meet changes in demand. The magnetic field at the edge of the gen-tie right-of-way is expected to range from 99.09 mG to 171.29 mG. The electric field at the edge of the right-of-way is expected to range from 0.342 kilovolts/meter (kV/m) – 1.777 kV/m).

Overall, construction and operation of the Project, including the interconnection of the facility with SCE's transmission system, are not expected to result in increases in EMF levels, corona, radio interference, or audible noise and mitigation would not be required.

Construction

The following sections detail the approximate construction schedule and workforce, construction activities, estimated water use, and materials handling proposed by the Project.

Schedule and Workforce

The Project is anticipated to be built over an approximately 20-month period from the onset of site preparation activities through energization. Following energization, testing and commissioning will take place over six (6) months. Initial mobilization and site preparation is anticipated to begin no later than March 2027 and testing and commissioning is anticipated to conclude no later than April 2029. The commercial operation date (COD) is expected shortly following the completion of testing and commissioning in June 2029. It is anticipated that construction crews will work eight (8) hours to 10 hours per day, with work occurring Monday through Friday.

Overtime, night work, and weekend work will be used only as necessary to meet the Project schedule or complete time-sensitive or safety critical work. All work schedules will comply with applicable California labor laws and County regulations. Estimated durations of construction activities are presented in Table 7.

Table 7. Estimated Construction Activity Duration

Construction Activity	Estimated Duration	Estimated Timeframe
Demolition	2 weeks	3/1/2027–3/12/2027
Site Preparation	1.5 months	3/1/2027–4/15/2027
Substation Site Preparation	2 weeks	4/16/2027–4/30/2027
Civil Work and Grading	4 months	5/1/2027–8/31/2027
Substation Civil Work and Grading	1 month	9/1/2027–9/30/2027
Paving	1.5 months	8/15/2027–9/30/2027
Battery Enclosure/PCS Installation	12 months	10/1/2027–10/1/2028
Project Substation Installation	8 months	2/1/2028–10/1/2028
Gen-Tie Foundations and Structure Erection	4 months	2/1/2028–5/31/2028
Gen-Tie Line Stringing and Pulling	1 month	6/1/2028–7/1/2028
SCE Interconnection Facility Upgrades within Vincent Substation	6 months	4/1/2028–10/1/2028
Testing and Commissioning	6 months	10/2/2028–4/1/2029

Note: PCS = power conversion system.

Sequencing

During construction activities, multiple crews will be working on the site with various equipment and vehicles. The daily number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) will range from approximately 50 to 250 workers, depending on the phase of construction. It is estimated that construction will require the vehicle trips and equipment listed in Table 8.

Table 8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Demolition	10	4	6	Rubber tired dozer	1	10
				Concrete/Industrial Saws	1	10
				Tractors/Loaders/ Backhoes	2	10
Site Preparation	242	12	24	Tractors/Loaders/ Backhoes	2	10
				Excavator	2	10
				Rubber tired dozer	2	10
	242	12	100	Tractors/Loaders/	1	10

Table 8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Substation Site Preparation				Backhoes		
				Excavator	1	10
				Rubber tired dozer	1	10
Grading	242	12	524	Graders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Rollers	2	10
Substation Grading	242	12	486	Graders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Rollers	1	10
Paving	16	0	0	Pavers	2	10
				Paving Equipment	2	10
				Rollers	2	10
Battery Enclosure/ PCS Installation	121	12	20	Air Compressors	1	10
				Cranes	1	10
				Forklift	1	10
				Tractors/Loaders/ Backhoes	1	10
Substation Installation	121	12	4	Aerial Lifts	1	10
				Air Compressors	1	10
				Bore/Drill Rigs	1	10
				Forklift	1	10
				Trenchers	1	10
Gen-Tie Foundation and Tower Erection	121	12	0	Air Compressors	1	10
				Cranes	1	10
				Forklifts	1	10
				Pumps	1	10
				Welders	1	10
Gen-Tie Stringing and Pulling	121	12	0	Aerial Lift	1	10
				Tractors/Loaders/ Backhoes	1	10
SCE Interconnection Facility Upgrades	121	12	0	Air Compressors	4	10
				Cranes	2	10
				Excavators	2	10
				Rough Terrain Forklifts	2	10
				Skid Steer Loaders	2	10

Table 8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
				Tractors/Loaders/ Backhoes	2	10
				Trencher	1	10
Testing and Commissioning	242	12	0	NA	NA	NA
Decommissioning	242	12	20	Concrete/Industrial Saws	2	10
				Cranes	2	10
				Rubber Tired Dozers	2	10
				Tractors/Loaders/ Backhoes	2	10

Notes: PCS = power conversion system; gen-tie = generation interconnection; SCE = Southern California Edison.

[1] The average daily haul truck trips for each phase consider phase durations from Table 2-7.

* The Project layout depicted in Figure 1, Project Site Plan, shows the "End of Life" configuration of the BESS, meaning it shows the equipment layout after all augmentation units are implemented. The numbers in this table conservatively assume that foundations and BESS equipment installation related to augmentation occurs during initial construction of the facility. Construction of foundations and BESS equipment installation for augmentation may occur during O&M periodically within the BESS facility footprint.

Site Preparation

Environmental clearance surveys will be performed at the Project site prior to commencement of construction activities. The limits of construction disturbance areas delineated in the final approved engineering design packages will be surveyed and staked. Initial ground disturbing activities in preparation for construction will include installation of erosion and sediment control measures prior to start of major earthwork activities. Rough grading and grubbing/vegetation removal will be performed where required to accommodate site drainage and allow construction equipment to access the site. Detention chambers and stormwater facilities will be created for hydrologic control. The construction contractor will be required to incorporate applicable best management practices (BMPs) including the guidelines provided in the California Stormwater Quality Association's Construction BMP Handbook (CASQA 2024), as well as a soil erosion and sedimentation control plan to reduce potential impacts related to construction of the proposed Project. Stabilized construction entrances and exits will be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation will be consistent with applicable BMPs and the Antelope Valley Air Quality Management District's Fugitive Dust Rules. Site preparation will involve the removal and proper disposal of existing debris that will unduly interfere with Project construction or the health and safety of on-site personnel. Dust-minimizing techniques will be employed, such as placement of wind control fencing, application of water, and application of dust suppressants. All applicable governmental requirements and BMPs will be incorporated into the construction activities for the Project site.

Vegetation on the site will be removed where necessary to ensure the BESS facility is free from combustible vegetation to allow for fire protection and defensible space. Where feasible, in compliance with fire protection requirements, vegetation root mass within appropriate portions of the BESS facility lease area on the outside of the perimeter and substation access roads will be left in place for soil stabilization. However, the environmental analyses in subsequent sections conservatively assume that all areas within the maximum anticipated grading limits of the BESS facility will be permanently disturbed.

Site Grading and Civil Work

Following site preparation activities, grading and civil work will commence. Construction activities during this phase will include excavation and grading of the Project site. Preliminary designs conservatively assume that grading will include up to approximately 175,410 cubic yards (cy) of cut and up to approximately 625,095 cy of fill, resulting in a net of 449,685 cy of fill. Blasting is not expected but may be required if large boulders are encountered during excavation and grading. Fill material requirements will be satisfied by offsite borrow pits or quarries.

Conventional grading will be performed throughout the Project site but minimized to the maximum extent feasible to reduce unnecessary soil movement. Land-leveling equipment, such as a smooth steel drum roller, will be used to even the ground surface and compact the upper layer of soil to a value recommended by a geotechnical engineer for structural support. Following major civil work within the BESS facility site, site access roads and driveways, the perimeter and substation access roads, and interior roadways to access the laydown areas and BESS yards will be graded, compacted, and surfaced with gravel or paving. Once the roadways have been constructed, the Project perimeter fence and access gates will be constructed.

Foundations and Underground Equipment Installation

Following completion of major site grading and civil work, equipment foundations and below grade equipment will be installed. A grounding grid and underground conduit will be installed below grade beneath the Project substation area and BESS components. Typical ground grids consist of direct-buried copper conductors with copper-clad ground rods arranged in a grid pattern. After installation of the grounding grid, the area will be backfilled, compacted, and leveled followed by application of an aggregate rock base. A containment area within the MPT foundations will be sized to hold the full volume of oil within the MPTs. The MPT foundations within the substation area are anticipated to be concrete slab foundations poured into excavations up to seven (7) feet deep. Foundations for the control building, static masts, other aboveground substation equipment, O&M buildings, BESS enclosures, PCS units, DC/DC converters, and BESS auxiliary transformers and panels are anticipated to be slab on grade, or pile foundations embedded up to 24 feet below ground level. Depending on soil conditions, the piles may be drilled or driven and set with a slurry. However, some of these Project components may be installed on concrete slab foundations depending on the geotechnical conditions at the final locations.

Additional underground work will include trenching for the placement of underground electrical and communications lines, including the MV collection system, AC and DC cables, and fire alarm cable. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application

BESS and Project Substation Equipment Installation

Where possible, major equipment will be delivered directly to its permanent location and offloaded directly into place with a crane or heavy equipment. Where staging or sequencing does not allow, equipment will be stored at

one of the laydown areas near its permanent location and installed at a later date. Major aboveground equipment will be the MPTs and other Project substation components, control building, BESS enclosures, PCS units, DC/DC converters, BESS auxiliary transformers and panels, and material for the O&M buildings.

Electrical work will include installing cables, terminations, and splices. Electrical wiring will be installed underground, at-grade, and above ground, depending on the application and location. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application.

Gen-Tie Structure Erection

Environmental clearance surveys will be performed within the gen-tie corridor prior to commencement of construction activities. The gen-tie corridor boundaries, gen-tie centerline, telecommunications route centerlines, and transmission structure access path will be surveyed and flagged. Initial activities will include the installation of erosion and sediment control measures and materials, and preparation of the transmission structure and fiber optic utility pole work areas. The transmission structure access path may be bladed, compacted, and surfaced with gravel where necessary to facilitate transmission structure deliveries and construction equipment access. The surface of the access path will be at-grade to allow water to sheet flow across the gen-tie corridor, as it currently does. Overland travel and temporary construction activities associated with the gen-tie and telecommunications facilities may occur anywhere within the 150-foot-wide transmission corridor. Vegetation at the transmission and fiber optic utility pole work areas will be trimmed, mowed, or removed. At locations where gen-tie line structures and fiber optic utility poles will be installed, minor cuts may be required where the foundation will be installed.

Cast-in-place concrete foundations will be installed by placing reinforcing steel and a structure stub or anchor bolt cage into the foundation hole, positioning the stub, and encasing it in concrete. Each transmission structure foundation will be set on anchor bolts on top of the foundation with cranes. Holes will be excavated using a truck-mounted drill rig or standalone auger rig. Poles will be delivered on a flat-bed trailer and hoisted into place with a crane. The annular space between the poles and holes will be backfilled with concrete or soil. Excavated spoil material not used for backfilling will be spread around the structure work areas.

Gen-Tie Stringing and Pulling

For a conductor pulling location, the distance needed behind the dead-end structures should be equal to or greater than a 3:1 ratio (300 feet needed for a 100-foot-tall structure), or as recommended by the conductor manufacturer, to mitigate potential damage to the conductor during installation. The width of the pulling area is consistent with the 150-foot-wide Gen-Tie corridor. The pulling area will need to be relatively flat since trucks, trailers and various other small vehicles will need room to maneuver for placement of materials and equipment. The area will be cleared of any brush or obstacles, to facilitate unobstructed travels. For the wire end of a pull, there will be a minimum of two (2) 53-foot-long semi-trailers side by side, loaded with three (3) conductor reels each. One (1) trailer will be feeding the conductor to a tensioner, as the other trailer will be utilized for replacement of empty reels, and then facilitate a continuation of pulling efforts. The tensioner will be approximately the size of a semi-trailer and is responsible for tensioning the conductor during installation. A heavy-duty forklift or a large size all-terrain crane will be needed to support placement/removal of reels to the wire trailers, due to size and weight. After conductor installation, a bulldozer will be used to secure the installed conductors during application of additional tensions for the sagging process. The pulling equipment utilized is comparable in size/quantity to equipment utilized to support the new conductor reels. Pulling equipment utilizes multiple reels of high-tension pulling cables, mounted to semi-

trailers, to support the new conductor placement into position on the structures. Pulling sites are depicted as Gen-Tie Work areas in Figure 2, Transmission Line Route.

A helicopter may be used to complete gen-tie stringing and pulling where the gen-tie crosses the railroad. For this portion of the stringing and pulling work it is assumed that a MD600 helicopter would be used for up to three (3) 10-hour days consisting of one (1) day for mobilization, 1 day for stringing and pulling, and one (1) day for demobilization. For the purposes of project analysis, it is anticipated that the helicopter would facilitate pulling of conductors and shield wires from proposed transmission structures No. 1 to No. 9 if the Northern Gen-Tie Route is selected, and transmission structures No. 3 to No. 5 if the Southern Gen-Tie Route is selected (please see Figure 2, Transmission Line Route, for transmission structure numbering). Helicopter use would be supported by one (1) approximately 150-foot by 100-foot landing zone. Landing zones would primarily be used for staging materials, picking up and transporting electrical personnel and equipment, and refueling helicopters. The landing zone is anticipated to be located at the main laydown area but may need to shift to one (1) of the other two (2) laydown areas depending on the sequencing of construction.

SCE-Owned Gen-Tie Segment and Interconnection Facilities within Vincent Substation Footprint

SCE will construct the segment of the gen-tie between the POCO and the POI within the SCE Vincent Substation, and the fiber optic routes between the POCO and the SCE control building within the Vincent Substation footprint. The Applicant will bring the fiber optic cables to underground pull boxes at the POCO structure, and SCE will install the segment of the fiber optic cables between the POCO and control building in conduit placed in underground trenches. The trenches are anticipated to be up to four (4) feet wide, and the trenches for the redundant routes will need to be at least 25 feet apart to meet SCE's diverse path requirements. It is anticipated that SCE will install the trenches within the access road to the angled dead-end structure outside the Vincent Substation fence line. However, SCE may install the cables within existing roadways or other pre-disturbed areas along the perimeter of the substation fence depending on final design and routing.

SCE will also construct the interconnection upgrades within the Vincent Substation footprint at the POI.

Construction Water Use

Construction water is anticipated to be purchased from a local water purveyor and trucked to the site. During construction, an estimated 18 million gallons (approximately 55 acre-feet) of untreated water will be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used during ingress and egress of on-site construction vehicle equipment traffic and during the construction of the Project. A sanitary water supply line will not be required during construction because restroom facilities will be portable units, serviced by licensed providers, and water and sewage from the restroom facilities will be stored in on-site tanks and serviced by trucks. Drinking water will be provided via portable water coolers.

Solid and Non-hazardous Waste

The Project will produce a small amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation waste. This waste will be segregated, where practical, for recycling. Non-recyclable waste

will be placed in covered dumpsters, located in project laydown areas, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III (non-hazardous waste) landfill.

Hazardous Materials

The hazardous materials used for construction will be typical of most construction Projects of this type. Materials may include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliatives, herbicides, and welding materials/supplies. A hazardous materials business plan will be prepared prior to commencement of construction activities. The hazardous materials business plan will include a complete list of all materials used on site and information regarding how the materials will be transported and in what form they will be used. This information will be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction, material safety data sheets for all applicable materials present at the site will be made readily available to on-site personnel.

Hazardous Waste

Small quantities of hazardous waste will most likely be generated over the course of construction. This waste may include waste paint, spent construction solvents, waste cleaners, waste oil, oily rags, waste batteries, and spent welding materials. Workers will be trained to properly identify and handle all hazardous materials. Hazardous waste will be either recycled or disposed of at a permitted and licensed treatment, recycling, or disposal facility in accordance with law. All hazardous waste shipped off site will be transported by a licensed hazardous waste hauler.

Commissioning

As part of Project construction activities, and after installation, equipment will be tested and commissioned. Commissioning work will be completed by qualified personnel, and in accordance with various codes, standards and specifications including IEEE, Institute of Electrical and Electronic Engineers, NEC National Electrical Code (NFPA 70), NETA International Electrical Testing Association, specific provisions of NFPA National Fire Protection Association, and the relevant OEM / manufacturers installation and commissioning manuals. Documentation necessary for commissioning will include (but is not limited to) complete sets of electrical plans, itemized equipment descriptions, control narratives, and other procedural requirement such as persons or entities to notify when equipment has become available for acceptance tests.

Commissioning will include testing of mechanical, electrical, fire protection, and other systems at substantial completion. Systems to be commissioned and tested include (but are not limited to) BESS enclosures, PCS units, auxiliar service transformers, MV collection system, DC cables, SCADA systems, power backup systems, and fire protection system. Performance testing will also be completed to ensure charge and discharge performance of the systems as designed and in accordance with the utility requirements. Full details of the commissioning activities will be made available in a commissioning plan, prepared by the BESS supplier and construction contractor and reviewed by the Engineer of Record, as part of the construction documentation package.

Operations and Maintenance

Once constructed, the Project will be available to operate seven (7) days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider, by means of a NERC-CIP compliant remote operations center. Project operations will be monitored remotely through the SCADA system and by the

Project's anticipated full-time operations staff members. It is estimated that there will be four (4) full-time staff members for remote monitoring and 16 full-time operations staff members on site.

On-site maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will visit the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance. Typically, one (1) major maintenance inspection will take place annually. Even when considering routine maintenance and augmentation activities, the project expects to provide no less than a 96% annual availability factor to the grid.

Batteries within utility-scale BESS facilities degrade with use over time, leading to a loss of capacity. To maintain the Project's capacity in compliance with interconnection requirements and commercial contracts, periodic augmentation by installing new batteries and related equipment within the Project site will occur to maintain the capacity over an approximate 40-year life. As batteries slowly lose their capacity to store energy, extra batteries will be installed at the beginning of the Project and at several intervals through the Project life, which is referred to as augmentation. Augmentation is expected to occur in order to maintain an annual lifetime capacity of 9,200MWh. If the project were to discharge for eight (8) hours daily and have an annual availability of 96% then the Project would have an annual capacity factor of approximately 32%. The Project's final augmentation strategy will be determined by market based contracting requirements. Augmentation may include constructing new foundations, installing BESS equipment on the foundations, and completing electrical work within the existing Project footprint. The preliminary site layout depicted on Figure 1, Project Site Plan, shows an "end of life" configuration, meaning it shows the equipment layout after all augmentation units are implemented. The construction sequencing and equipment usage assumptions in Tables 5 and 6 above, and environmental analyses in subsequent chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

Solid and Non-hazardous Waste

The Project will produce a small amount of waste associated with maintenance activities, which could include broken and rusted metal, defective or malfunctioning electrical materials, empty containers, and other miscellaneous solid waste, including typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste will be placed in covered dumpsters, located near the O&M buildings, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

Hazardous Materials

Limited amounts of hazardous materials will be stored or used on the site during operations, including diesel fuel, gasoline, and motor oil for vehicles; refrigerant within the BESS enclosures; mineral oil to be sealed within the transformers; and lead-acid-based batteries for emergency backup. Appropriate spill containment and cleanup kits will be maintained during operation of the Project. A spill prevention control and countermeasures plan will be developed for site operations.

Hazardous Waste

Fuels and lubricants used in operations will be subject to the spill prevention control and countermeasures plan to be prepared for the proposed Project. Solid waste, if generated during operations, will be subject to the material disposal and solid waste management plan to be prepared for the proposed Project.

Decommissioning

In general, the BESS will be recycled at the expiration of the Project's life (estimated to be 40 years). Most parts of the proposed system are recyclable. Batteries include lithium, which degrades but can be recycled or repurposed. Steel, wood, and concrete from the decommissioned facilities will be recycled. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Materials three (3) feet or more below the ground surface will be left in place.

Fuel, hydraulic fluids, and oils will be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels will be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as smaller container lubricants, paints, thinners, solvents, cleaners, batteries, and sealants, will be kept in a locked utility structure with integral secondary containment that meets Certified Unified Program Agencies and Resource Conservation and Recovery Act requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries will be recycled at an appropriate facility. Site personnel involved in handling these materials will be trained to properly handle them. Containers used to store hazardous materials will be inspected regularly for any signs of failure or leakage. Additional procedures will be specified in a Hazardous Materials Business Plan closure plan submitted to the Certified Unified Program Agencies. Transportation of the removed hazardous materials will comply with regulations for transporting hazardous materials, including those set by the Department of Transportation, the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal.

Project Site Selection

The Project site and related facilities were selected taking into consideration engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, and electric transmission constraints, among other factors. The Project location was selected, in part, due to it being large enough to support development of the Project, its close proximity to existing electrical infrastructure and the Vincent Substation, thereby minimizing the length of the proposed gen-tie line to the POI and ability to deliver power to the Los Angels Basin local reliability area during peak demand, and because it is located immediately adjacent to existing roadways for construction and O&M access.

The Project is uniquely suited to help California achieve its greenhouse gas reduction requirements and support Los Angeles Basin (LA Basin) reliability requirements. The Vincent substation is located at a key point in the electrical grid, Service Path 26, which enables it to deliver energy from renewable resources outside of the LA Basin Resource Area to meet LA Basin Local Capacity Requirements (LCR), with tie lines into the Western and Eastern LA Basin. LCR refers to the minimum amount of local generation capacity needed within specific areas to meet reliability criteria, particularly in areas where transmission constraints limit the ability to import power and is a critical metric for understand energy needs which are necessary to meet future grid demand. The LA Basin LCR is

increasing, primarily due to load growth. The 2024-2025 Transmission Plan shows that peak load in the SCE Main area is forecasted to grow from 25,265MW in 2026 to 27,929MW in 2034 (CAISO 2025a), representing a 9.5% increase over eight (8) years. The 2026 LCR Tech Study also shows that the local capacity needed in the LA Basin is expected to increase from 5,812MW in 2026 to 7,226MW in 2030, which is an approximate 20% increase in required capacity in 4 years. Compared with the 2025 LCR study, demand for the LA Basin is 429MW higher than last year's forecast and the forecasted LCR needs have increased by 1,689MW due to load forecast increase (CAISO 2025b). In addition, CAISO is projecting that there will be a total potential curtailment of 1,300 gigawatt hours of wind and solar from the SCE North area in 2034, absent storage availability (CAISO 2025a). Locating this important energy storage Project with efficient and environmentally sound access to the Vincent Substation provides the Project with the ability to help reduce wind and solar curtailment while also supporting the growing LCR needs in the LA Basin, allowing stored resources to be dispatched when needed.

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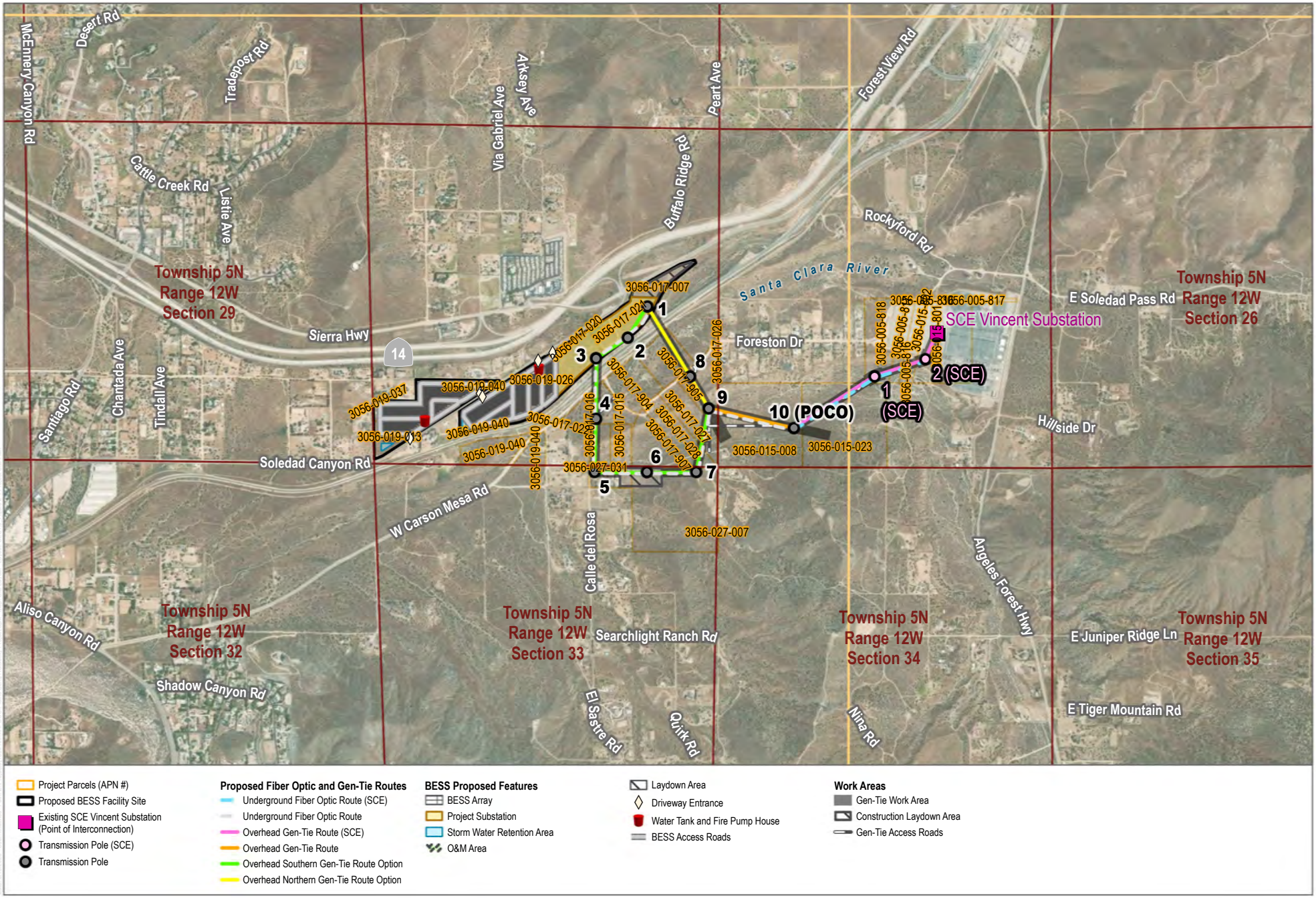


SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

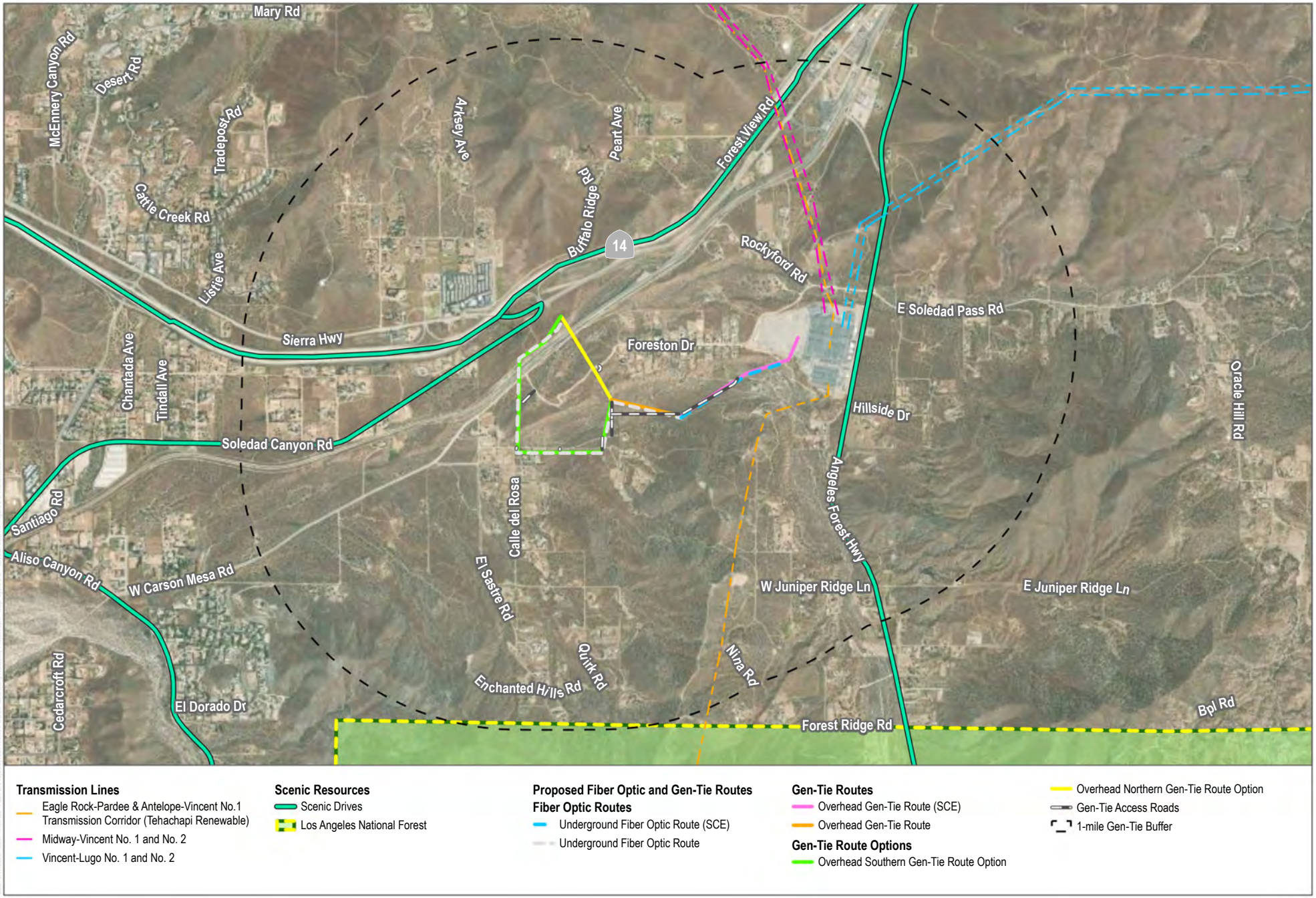
DUDEK

0 500 1,000 Feet

FIGURE 1

Project Site Plan

Prairie Song Reliability Project



SOURCE: Los Angeles County; USFWS; CEC

DUDEK

0 1,000 2,000 Feet

FIGURE 2

Transmission Line Route

Prairie Song Reliability Project

Attachment D

Aquatic Resources Delineation Report

DRAFT

Aquatic Resources Delineation Report

Prairie Song Reliability Project

OCTOBER 2025

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT, LLC
Contact: Garrett Lehman

Prepared by:

DUDEK

225 S. Lake Ave, Suite 225-M210
Pasadena, CA 91101
Contact: Michael Cady

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APPENDICES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
APT	Antecedent Precipitation Tool
ARC	antecedent runoff condition
ARDR	Aquatic Resources Delineation Report
CDFW	California Department of Fish and Wildlife
NWW	non-wetland water
OHWM	ordinary high-water mark
PDSI	Palmer Drought Severity Index
Project	Water Resources Operations & Maintenance Building Project
RWQCB	Regional Water Quality Control Board
SDAM	Streamflow Duration Assessment Method
USACE	U.S. Army Corps of Engineers
WET	wetland

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1 Introduction

This Aquatic Resources Delineation Report (ARDR) was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). This ARDR and supporting appendices provide the 20 items listed in the Minimum Standards. This report presents the results of the jurisdictional aquatic resource delineation conducted by Dudek staff for the Prairie Song Reliability Project (Project) in unincorporated Los Angeles County, California. The delineation was conducted to identify and map existing aquatic resources potentially subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (33 USC 1344), waters of the state potentially subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act and the Porter–Cologne Water Quality Control Act, and stream and riparian habitats potentially subject to the jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code (collectively defined as jurisdictional aquatic resources).

1.1 Disclaimer Statement

This ARDR presents Dudek's best effort to quantify the extent of aquatic resources potentially regulated by USACE, RWQCB, and CDFW (i.e., regulatory agencies) within the identified Review Area using current regulations, written policies, and guidance from these regulatory agencies. The potential jurisdictional boundaries described in this ARDR are subject to verification by the regulatory agencies. Only the regulatory agencies can make a final determination on whether the features present are subject to USACE, RWQCB, and/or CDFW regulation. A request for USACE Jurisdictional Determination is provided as Appendix A.[1]

1.2 Contact Information

Contact information for the project applicant and agent are provided in Table 1.[2] Access to the Review Area is not restricted, but if a site visit is requested, the project applicant or agent will accompany regulatory staff to the Review Area.[3] Prairie Song Reliability Project, LLC is the project applicant and landowner.

Table 1. Contact Information

Project Applicant	Prairie Song Reliability Project, LLC	**Agent**	Dudek
Contact Name	Garrett Lehman	**Contact Name**	Michael Cady
Address		**Address**	
Phone		**Phone**	
Email		**Email**	

1 Minimum Standards Item 1 (Request for Jurisdictional Determination)
2 Minimum Standards Item 2 (Contact Information)
3 Minimum Standards Item 3 (Site Access Statement)

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2 Review Area Description and Landscape Setting

The approximately 531-acre Review Area for the proposed Project is in unincorporated Los Angeles County, California, south of the Antelope Valley Freeway (State Route 14) approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Review Area is within the U.S. Geologic Survey 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the battery energy storage system (BESS) facility will occur on an area of land sandwiched between two existing transportation corridors, State Route 14 to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, which are approximately 1,200 feet apart. The Project will utilize one of two potential 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission lines to connect with the existing Southern California Edison (SCE) owned and operated Vincent Substation. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the point of interconnection at the Vincent Substation. The northern gen-tie route is approximately 1.1 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. (see Figure 1, Project Location).[4,5]

The site can be accessed from State Route 14 North by taking exit 27 and continuing straight on to Soledad Canyon Road. The BESS portion of the Review Area can be accessed from Soledad Canyon Road. To access the gen-tie portion of the Review Area, continue south on Soledad Canyon Road and take a left (east) onto Aliso Canyon Road and then a left (north) onto Carson Mesa Road. Stay on Carson Mesa Road to the intersection with Foreston Drive.[6]

2.1 Geology and Topography

The Project site is located within the Transverse Ranges Geomorphic Province. The Transverse Ranges are characterized by an east-west trending series of steep mountain ranges and valleys (CGS 2002). The east-west structure of the Transverse Ranges is oblique to the normal northwest trend of coastal California, hence the name "Transverse." The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. Its eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault. Intense north-south compression by tectonic forces is squeezing the Transverse Ranges. As a result, this is one of the most rapidly rising regions on earth. Great thicknesses of Cenozoic (younger than 66 million years old) petroleum-rich sedimentary rocks have been folded and faulted, making this one of the important oil producing areas in the United States.

4 Minimum Standards Item 10 (Description of Existing Field Conditions)
5 Minimum Standard Item 14 (Site Location Map)
6 Minimum Standards Item 4 (Directions)

The proposed BESS facility site portion of the Review Area has an approximately 4% slope increasing from the southwest to the northeast direction. The approximate elevations of the BESS facility site range from 2,980 to 3,140 feet. The proposed gen-tie route portions of the Review Area traverse flat terrains and rolling hill topographies. The elevation at the proposed Gen-Tie structures ranges from 3,010 to 3,125 feet.

2.2 Soils

Five soil units in four soil series and one land type have been mapped in the Review Area and are described below (USDA 2024a) [7]: Greenfield sandy loam, 2 to 9 percent slopes; Hanford coarse sandy loam, 0 to 2 percent slopes; Hanford coarse sandy loam, 9 to 15 percent slopes; Hanford sandy loam, 2 to 9 percent slopes; Terrace escarpments; and Vista coarse sandy loam, 30 to 50 percent slopes. Soil types within the Review Area are shown Figure 2, Soils. Only Hanford coarse sandy loam, 0 to 2 percent slopes has been determined to be hydric (USDA 2025b).

Greenfield Series: The Greenfield series consists of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils are on alluvial fans and terraces and have slopes of 0 to 30 percent. The soils are well drained, with slow to medium runoff and moderately rapid permeability. Vegetation typically consists of annual grass, forbs, some shrubs, and scattered oak trees.

Hanford Series: The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. The soils are well drained, with negligible to low runoff and moderately rapid permeability. Vegetation typically consists of annual grasses and associated herbaceous plants.

Terrace Escarpments: Terrace escarpments are short, moderately steep to steep faces or breaks that separate the terraces from the lower-lying alluvial fans. Slopes range from 15 to 45 percent. Runoff is medium to rapid, and the hazard of erosion is moderate to high. The surface is generally coarse sandy loam and vegetation typically consists of annual grasses and forbs.

Vista Series: The Vista series consists of moderately deep, well drained soils that formed in material weathered from decomposed granitic rocks. Vista soils are on hills and mountainous uplands and have slopes of 2 to 85 percent. The soils are well drained, with slow to rapid runoff and moderately rapid permeability. Vegetation typically consists of annual grass and forbs and shrubs.

2.3 Vegetation

Vegetation communities and land uses within the Study Area were mapped in the field using the Environmental Systems Research Institute (Esri) Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined. Vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California

[7] Minimum Standards Item 13 (Soil Descriptions)

Vegetation, Online Edition (CNPS 2025), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible.

Table 2. Vegetation Communities and Land Covers in the Review Area

Alliance	Association	Acres
Native Communities		
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	0.82
	Ambrosia salsola Association	3.99
Fiddleneck - phacelia fields	*Amsinckia menziesii - Erodium* spp.	2.25
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	15.40
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	18.64
	Artemisia tridentata - Eriogonum fasciculatum	3.98
	Artemisia tridentata	0.58
	Artemisia tridentata ssp. *parishii*	8.58
Fourwing saltbush scrub	*Atriplex canescens*	94.03
Mormon tea scrub	*Ephedra viridis*	23.92
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	20.06
	Ericameria nauseosa	8.87
California buckwheat scrub	*Eriogonum fasciculatum*	12.40
	Eriogonum fasciculatum var. *foliolosum - Juniperus californica*	5.24
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	4.28
California walnut groves	*Juglans californica / annual herbaceous*	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	34.77
	Juniperus californica / herbaceous	126.21
	Juniperus californica / Eriogonum fasciculatum - Artemisia californica	0.48
	Subtotal	*385.39*
Naturalized (Non-Native)		
Avena spp. – *Bromus* spp.	*Avena barbata - Bromus hordeaceus*	3.28
Bromus rubens – *Schismus* (*arabicus*, *barbatus*)	*Bromus rubens* - mixed herbs	3.17
	Subtotal:	*6.45*
Land Cover Types		
Disturbed habitat	Not applicable	30.72
Urban/Developed	Not applicable	108.14
	Subtotal:	*138.86*
	Total:	**530.71**

Notes: Totals may not sum due to rounding.

2.4 Watershed

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California, and travels through two counites, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023; USCR IRWMP 2014).

2.5 Climate

The Review Area is near the interface of the San Gabriel Mountains and the Mojave Desert, as such it has an arid climate that averages 10.42 inches of rain annually (WRCC 2025). The hot season is from mid-March to mid-November, with an average daily high temperature above 85°F. The cool season lasts from mid-November to mid-March, with an average daily high temperature below 63°F.

2.6 Review Area Alterations, Current and Past Land Use

Land uses in the immediate vicinity of the Review Area include undeveloped and rural lands, multiple high-voltage transmission lines, an electrical substation, paved and rural roads, State Route 14, and railroad lines. There are a few single-family residences adjacent to the BESS site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line routes.

3 Investigation Methods[8]

This chapter describes the investigation methods for this jurisdictional delineation conducted by Dudek biologists Eilleen Salas (2023: January 6, 11, 23 and February 12 and 19; 2024: November 18; 2025: August 30) and Tracy Park (2024: November 19 and December 7)[9]. Prior to conducting the jurisdictional delineation, U.S. Fish and Wildlife Service's National Wetlands Inventory data (USFWS 2024) was reviewed to determine if the Review Area contains any features mapped by the U.S. Fish and Wildlife Service. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Review Area supports hydrophytic vegetation and potential wetlands. No wetland or riparian vegetation communities were mapped in the Review Area. Jurisdictional boundaries were mapped in the field using ESRI Collector on a mobile device. Remote sensing was not used for the delineation.[10]

3.1 U.S. Army Corps of Engineers

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on topographical maps in conjunction with ESRI Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM Manual.[11]

Wetland Determination Forms were completed for certain points within drainages or vegetation communities where a predominance of hydrophytic vegetation was present; hydrology, vegetation, and soils were assessed to determine whether USACE three-parameter wetlands were present. USACE OHWM Forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths. All data forms can be found in Appendix B.[12]

3.2 Regional Water Quality Control Board

Wetland waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters were delineated to the top of bank and are concurrent with CDFW jurisdictional limits.

8 Minimum Standards Item 19 (Methods)
9 Minimum Standards Item 8 (Dates of Field Work)
10 Minimum Standards Item 12 (Statement Regarding Use of Remote Sensing)
11 Minimum Standards Item 5 (Use of 1987 Manual, Regional Supplement, and OHWM guide)
12 Minimum Standards Item 18 (Data Forms)

3.3 California Department of Fish and Wildlife

CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

4 Aquatic Resource Narrative

This chapter describes the aquatic resources that occur in the Review Area.[13] Nine stream features, six swales, and three erosional features were delineated within the Review Area.

4.1 Waters of the United States (USACE)

Approximately 3.09 acres of non-wetland waters potentially regulated by USACE are present in the Review Area (Figure 4, Potential Jurisdictional Aquatic Resources).[14] Table 5 provides a detailed summary of aquatic resources delineated within the Review Area. Table 3 includes descriptions of the features identified within the Review Area; Cowardin type, if available (Cowardin et al. 1979; USACE 2024b); any OHWM indicators present; location; and acreage/linear feet.[15] A copy of the ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet is not submitted with this ARDR because Table 5 provides all of the information requested.[16] Photos of the potential aquatic features delineated within the Review Area and additional areas reviewed for the presence of these resources are provided in Appendix C.[17] The locations of these photos are shown in Figure 4 and Appendix D, Mapbook.

Table 3. USACE Aquatic Resource Summary for the Review Area

Feature Name	Cowardin Code[1]	OHWM Indicators	Location (Latitude/Longitude; Decimal Degrees)	Acres	Linear Feet
Non-Wetland Waters					
NWW-1a	Not Mapped	BBS, CVC	34.483209°, -118.143593°	0.08	498
NWW-1b	R4SBA	BBS, CVC	34.483824°, -118.141114°	0.17	1,782
NWW-1c	R4SBA	BBS, CVC	34.482575°, -118.143315°	0.05	457
NWW-1d	Not Mapped	BBS, CVC	34.484208°, -118.143470°	0.02	236
NWW-2	R4SBA	BBS, CVC	34.483081°, -118.138260°	0.30	2,615
NWW-3	Not Mapped	BBS, CVC	34.484381°, -118.136232°	0.07	1,050
NWW-4	Not Mapped	BBS, CVC	34.485641°, -118.134995°	0.02	783
NWW-5	R4SBA	BBS, CVC	34.482206°, -118.127602°	1.47	5,503
NWW-6	R4SBC	BBS, CVC	34.478606°, -118.135623°	0.14	761
NWW-7	R4SBA	BBS, CVC	34.488883°, -118.120250°	0.77	1,818
NWW-8	Not Mapped	BBS, CVC	34.482193°, -118.124414°	0.18	1,022
NWW-9	R4SBC	BBS, CVC	34.489469°, -118.133062°	0.03	145
			Grand Total	**3.34**	**17,266**

Notes: Totals may not sum due to rounding; USACE = U.S. Army Corps of Engineers; OHWM = ordinary high-water mark; NWW = non-wetland water; N/A = not applicable; BBS = break in bank slope; CVC = change in vegetation cover

1 Pursuant to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979) and USACE Cowardin Codes for ORM Data Entry (USACE 2024b).

13 Minimum Standards Item 6 (Aquatic Resource Narrative)
14 Minimum Standards Item 7 and Item 16 (Delineation Maps)
15 Minimum Standards Item 9 (Table Listing All Aquatic Resources)
16 Minimum Standards Item 15 (ORM Bulk Upload Aquatic Resources or Consolidated Excel spreadsheet)
17 Minimum Standards Item 17 (Ground Photos)

NWW-1a

NWW-1a is located within the BESS portion of the Review Area and its headwaters are located to the north of SR 14 and conveyed beneath the highway via culverts. Waters conveyed by the feature enter the Review Area from a culvert beneath Soledad Canyon Road. NWW-1a merges with NWW-1b in the Review Area to become NWW-1c. NWW-1c becomes undefined to the southwest of the Review Area. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are *Atriplex canescens* Association and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-1b

NWW-1b is located entirely within the BESS portion of the Review Area. The feature merges with NWW-1a in the Review Area to become NWW-1c. NWW-1c becomes undefined to the southwest of the Review Area. NWW-1b has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil type associated with the feature is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are *Atriplex canescens* Association, *Ephedra viridis* Association, *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association, and *Juniperus californica* / herbaceous Association.

NWW-1c

NWW-1c is formed from waters from NWW-1a and NWW-1b and it exits the Review Area shortly after the merger. The feature goes beneath the railroad tracks to the south via a culvert and waters are then conveyed on a maintained dirt road before reentering the Review Area. NWW-1c becomes undefined to the southwest of the Review Area. The feature has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil types associated with NWW-1c are Greenfield sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are Artemisia *tridentata - Ericameria* nauseosa Association, *Atriplex canescens* Association, and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-1d

NWW-1d is within the BESS and is formed from waters that flow off of Soledad Canyon Road and the developed properties north of Soledad Canyon Road. NWW-1d connects with NWW-1a at the Project boundary at Soledad Canyon Road. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes. The associated vegetation community is *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-2

NWW-2 is found in the gen-tie portion of the Review Area. Its headwaters are located less than three miles to the east-northeast of the Review Area in the upper Soledad Canyon. NWW-2 has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The feature loses a defined OHWM downstream of the Review Area at the intersection of Carson Mesa Road and Searchlight Ranch Road and does not connect with the Santa Clara River. The soil type3 associated with NWW-2 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Atriplex canescens* Association, *Ericameria nauseosa - Juniperus californica* / herb Association,

Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association, and *Juniperus californica* / herbaceous Association.

NWW-3

NWW-3 is found entirely within the gen-tie portion of the Review Area. The feature loses it defined OWHM at a maintained dirt road. The soil type associated with NWW-3 is Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Ericameria nauseosa - Juniperus californica* / herb Association and *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association, and *Juniperus californica* / herbaceous Association.

NWW-4

NWW-4 is found entirely within the gen-tie portion of the Review Area. The feature loses it defined OWHM within the Review Area. The soil type associated with NWW-4 is Hanford coarse sandy loam, 2 to 9 percent slopes. The associated vegetation community is *Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum* Association.

NWW-5

NWW-5 is the main drainage feature of Kentucky Springs Canyon and is within the gen-tie portion of the Review Area. The feature loses its defined OHWM to the west of the Review Area at a residential/equestrian property but then has a defined OHWM between that property and Carson Mesa Road. It is expected that waters from NWW-5 flow across Carson Mesa Road and into NWW-2. NWW-5 has been classified as R4SBA, which means it is a riverine feature that is intermittent and has a streambed that is temporarily flooded for brief periods. The soil types associated with NWW-5 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Artemisia tridentata* Association, *Atriplex canescens* Association and *Juniperus californica* / herbaceous Association.

NWW-6

NWW-6 is found entirely within the gen-tie portion of the Review Area. The feature loses its defined OHWM to the at a residential/equestrian property adjacent to the Review Area. NWW-6 has been classified as R4SBC, which means it is a riverine feature that is intermittent and has a streambed that is seasonally flooded. The soil types associated with NWW-6 are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation community is *Juniperus californica* / herbaceous Association.

NWW-7

NWW-7 is found in the portion of the Review Area north of the Vincent Substation and is an upstream portion of NWW-2. The soil types associated with the feature are Hanford coarse sandy loam, 2 to 9 percent slopes and Terrace escarpments. The associated vegetation communities are *Artemisia tridentata - Ericameria nauseosa Association*, *Artemisia tridentata* ssp. *parishii* Association, and *Ericameria nauseosa* Association.

NWW-8

NWW-8 is found in the southeast portion of the Review Area and within the gen-tie portion of the Review Area. The water source is from water flowing off an existing transmission line road and through NWW-8 into NWW-5. The soil types associated with the feature are Terrace escarpments; Hanford coarse sandy loam, 2 to 9 percent slopes; Vista coarse sandy loam, 30 to 50 percent slopes; and Hanford coarse sandy loam, 0 to 2 percent slopes. The associated vegetation communities are *Juniperus californica* / herbaceous Association and *Atriplex canescens* Association.

NWW-9

NWW-9 passes through the northeastern corner of the BESS portion of the Review Area. Its headwater are located north of SR-14 and waters are conveyed beneath SR-14 and Sierra Highway via culverts. NWW-9 continues to the south of the BESS site and joins with a stream outside of the Review Area between Sierra Highway and the railroad tracks. This feature then appears to lose its definition along the railroad track. The soil types associated with the feature are Terrace escarpments and Hanford coarse sandy loam, 9 to 15 percent slopes. The associated vegetation communities are *Eriogonum fasciculatum* Association and *Ephedra viridis* Association.

4.2 Waters of the State (RWQCB)

All the features described in Section 4.1, Waters of the United States, have been identified as waters of the state. These features are subject to regulation by the RWQCB under the Porter–Cologne Water Quality Control Act. In addition, six swales (not displaying OHWM indicators but potentially carrying sheet flows across the landscape due to topographic relief) and three erosional features were mapped in the gen-tie portion of the Review area and are subject to regulation by the RWQCB). These swales and erosional are excluded from potential USACE jurisdiction due to their lack of OHWM indicators. Table 4 lists all features within the Review Area that are subject to RWQCB regulation and are shown on Figure 5, Potential Jurisdictional Aquatic Resources – RWQCB/CDFW, and Appendix D.

Table 4. RWQCB Aquatic Resource Summary for the Review Area

Feature Name	Location (Latitude/Longitude; Decimal Degrees)	Acreage	Linear Feet
Non-Wetland Waters (NWW)			
NWW-1a	34.483209°, -118.143593°	0.09	498
NWW-1b	34.483824°, -118.141114°	0.18	1,782
NWW-1c	34.482575°, -118.143315°	0.06	457
NWW-1d	34.484208°, -118.143470°	0.02	236
NWW-2	34.483081°, -118.138260°	0.35	2,615
NWW-3	34.484381°, -118.136232°	0.14	1,050
NWW-4	34.485641°, -118.134995°	0.02	783
NWW-5	34.482206°, -118.127602°	1.36	5,503
NWW-6	34.478606°, -118.135623°	0.14	761
NWW-7	34.488883°, -118.120250°	0.77	1,818
NWW-8	34.482193°, -118.124414°	0.18	1,022

Table 4. RWQCB Aquatic Resource Summary for the Review Area

Feature Name	Location (Latitude/Longitude; Decimal Degrees)	Acreage	Linear Feet
NWW-9	34.489469°, -118.133062°	0.03	145
	Non-Wetlands Subtotal:	*3.34*	*17,266*
Swales			
Swale-1	34.483790°, -118.137852°	0.01	323
Swale-2	34.481982°, -118.134586°	0.04	628
Swale-3	34.483361°, -118.129572°	0.06	1,339
Swale-4	34.482888°, -118.128773°	0.04	283
Swale-5	34.483666°, -118.127604°	0.08	355
Swale-6	34.483388°, -118.126555°	0.04	167
	Swales Subtotal:	*0.27*	*2,753*
Erosional Feature (EF)			
EF-1	34.483730°, -118.135892°	0.03	283
EF-2	34.484118°, -118.135162°	0.09	368
EF-3	34.485159°, -118.133296°	0.03	167
EF-4	34.484484°, -118.134687°	0.05	495
	Erosional Feature Subtotal:	*0.20*	*1,322*
	Grand Total	**3.80**	**21,341**

Notes: Totals may not sum due to rounding RWQCB = Regional Water Quality Control Board; NWW = non-wetland water.

Swales

Six swale features were observed in various locations within the Review Area. These swales are characterized by unvegetated soils that lack bed and bank topography or a continuous defined OWHM and did not have connectivity with any non-wetland water features. Thus, these features are determined to not be potential waters of the U.S. but could be considered waters of the state.

Erosional Features

Four erosional features were observed alongside existing gravel access road. These areas contained a more defined bed and bank; however, areas "upstream and/or downstream" were evaluated and showed no evidence of an OHWM. It was determined that these features were not natural drainages, but, rather, were created artificially due to erosion from waters flowing off the existing dirt road. Thus, the features were determined to not be potential waters of the U.S. but could be considered waters of the state.

4.3 CDFW Jurisdiction

All the features described in Section 4.1 were identified as streambeds potentially regulated by CDFW. In addition, the six swales and four erosional features in the Review Area described in Section 4.2 are also potentially regulated by CDFW. These areas are shown in Figure 5 and Appendix D.

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5 Conclusions

Based on the jurisdictional delineation and review of relevant information provided in this ARDR, 3.09 acres of non-wetland waters potentially regulated by USACE were delineated within the Review Area. However, the features in the area have no downstream connectivity with relatively permanent water or traditional navigable water. Additionally, the features are ephemeral features that only have water flowing during and briefly following storm events. The delineation of NWW-2 on January 11, 2023 was conducted the day after a 2.38-inch rain event and no water was flowing through the feature. The non-wetland waters may also be regulated by the RWQCB, CDFW, and CEC.

This ARDR can be used by the regulatory agencies to determine if they would regulate the features described herein. The GIS data for the delineation can be provided digitally. [18]

[18] Minimum Standards Item 20 (Digital Data)

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6 References

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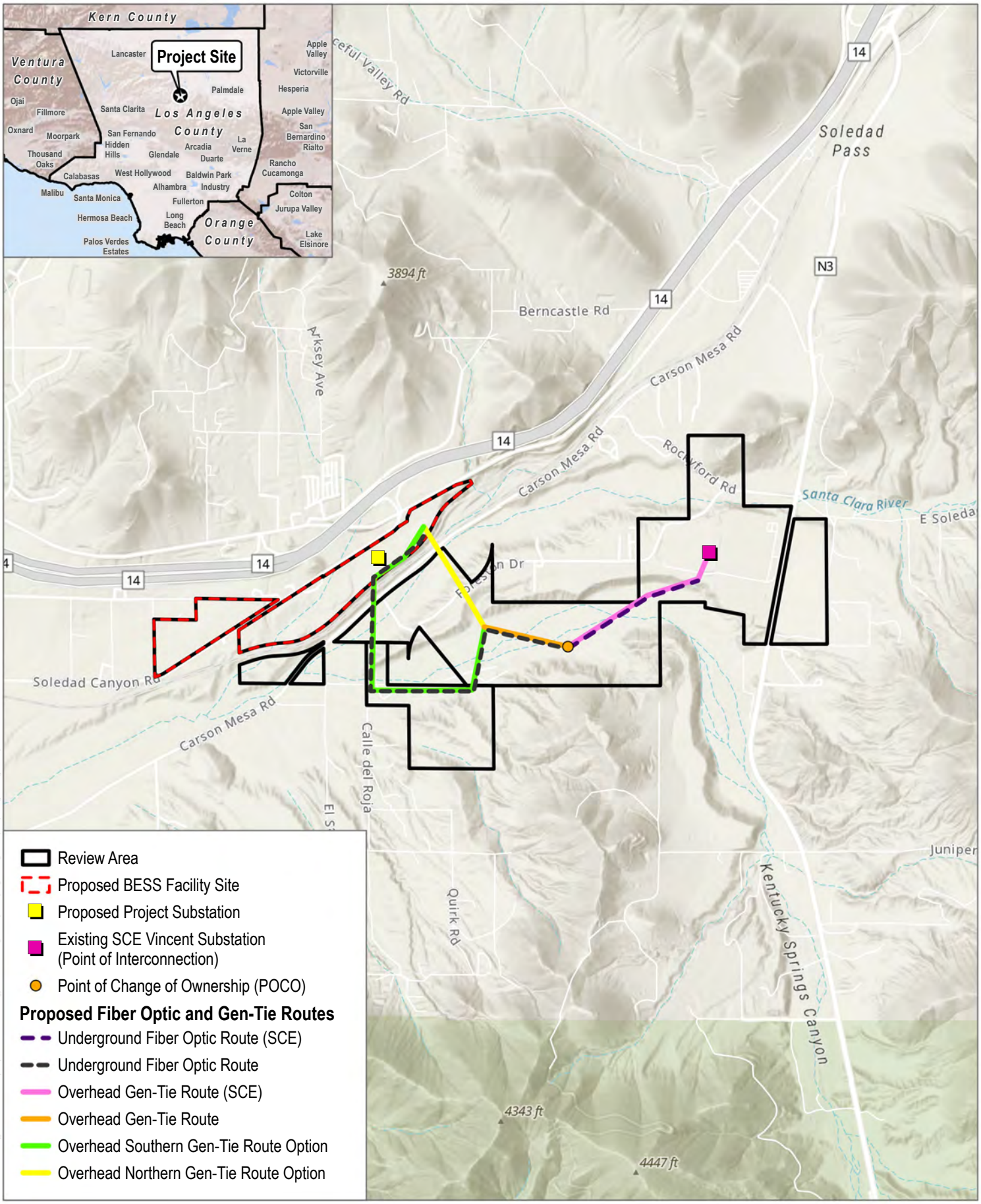

SOURCE: World Topographic

DUDEK

0 1,100 2,200 Feet

FIGURE 1

Regional Map

Prairie Song Reliability Project

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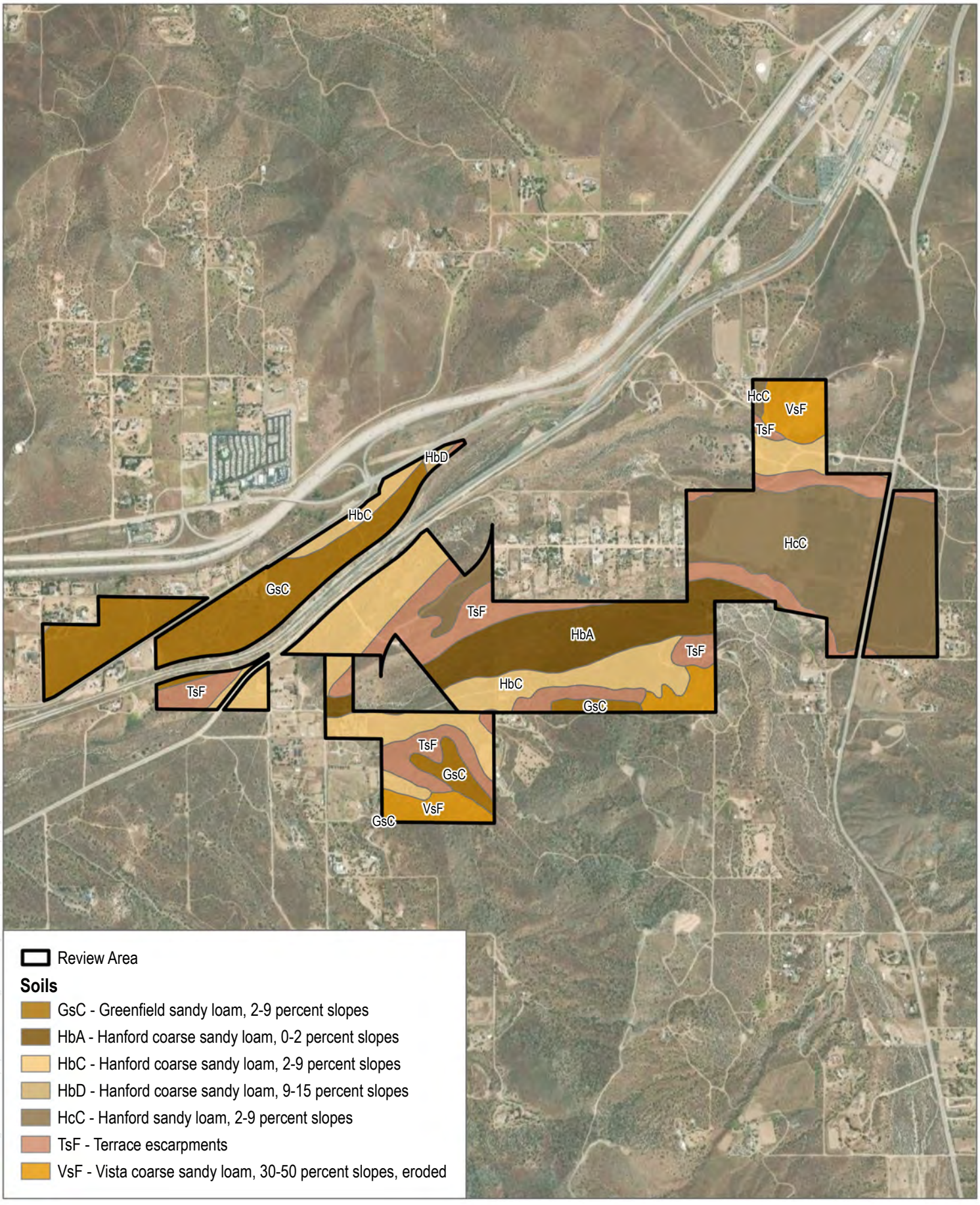

SOURCE: World Imagery; USDA

DUDEK

0 750 1,500 Feet

FIGURE 2

Soils

Prairie Song Reliability Project

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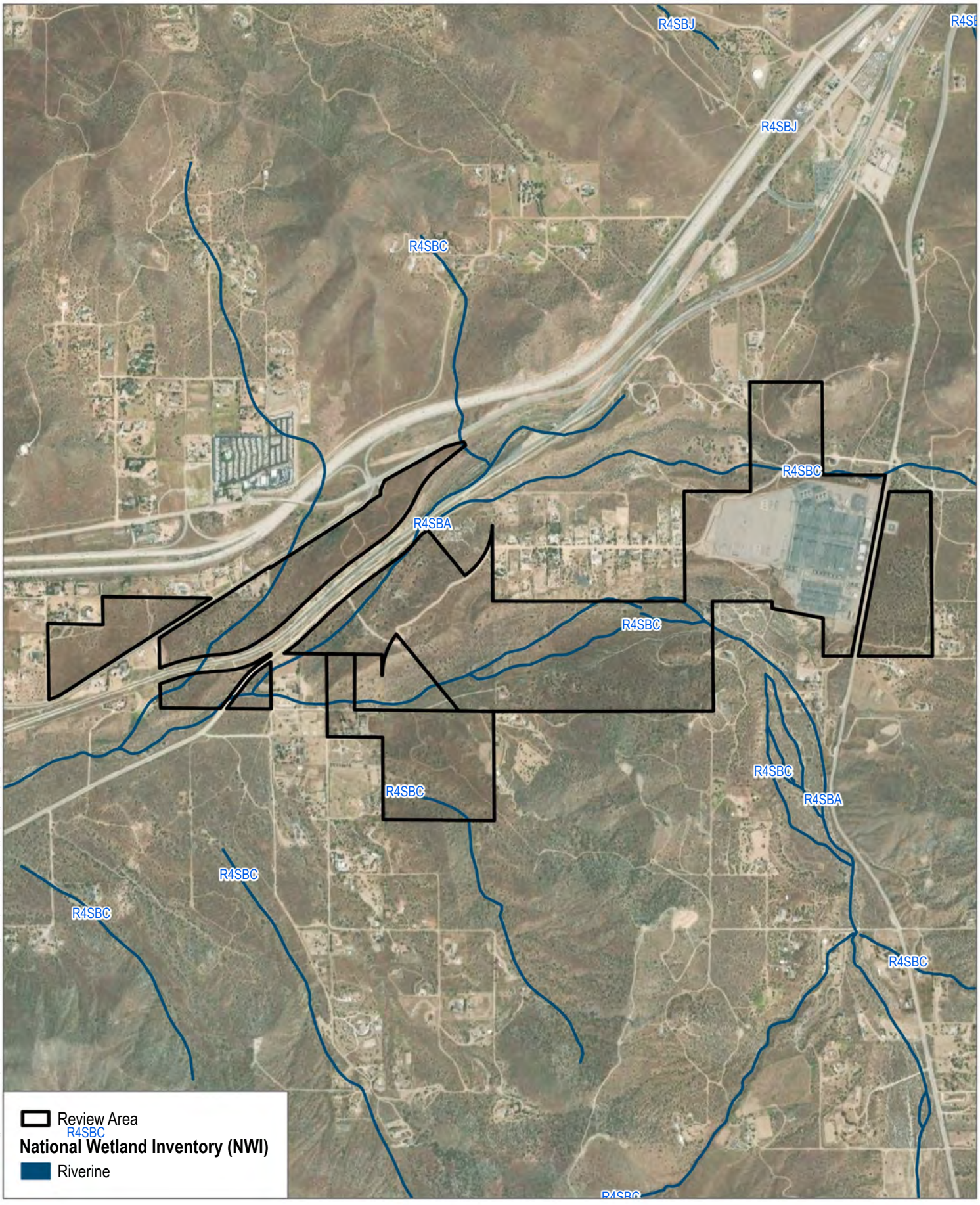

SOURCE: World Imagery; USFWS

DUDEK

0 750 1,500 Feet

FIGURE 3

Hydrology

Prairie Song Reliability Project

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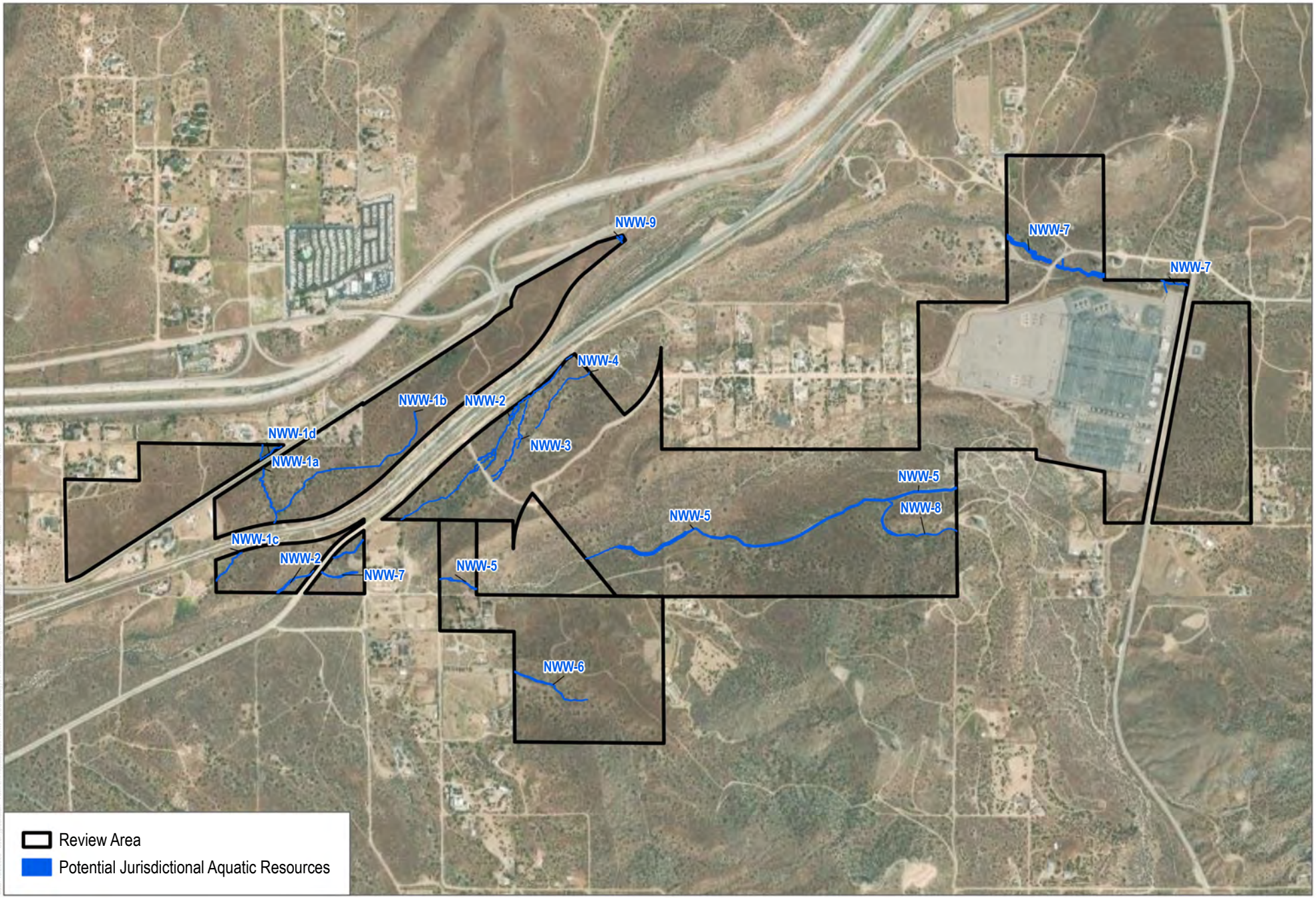

SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 4

JD - USACE

Prairie Song Reliability Project

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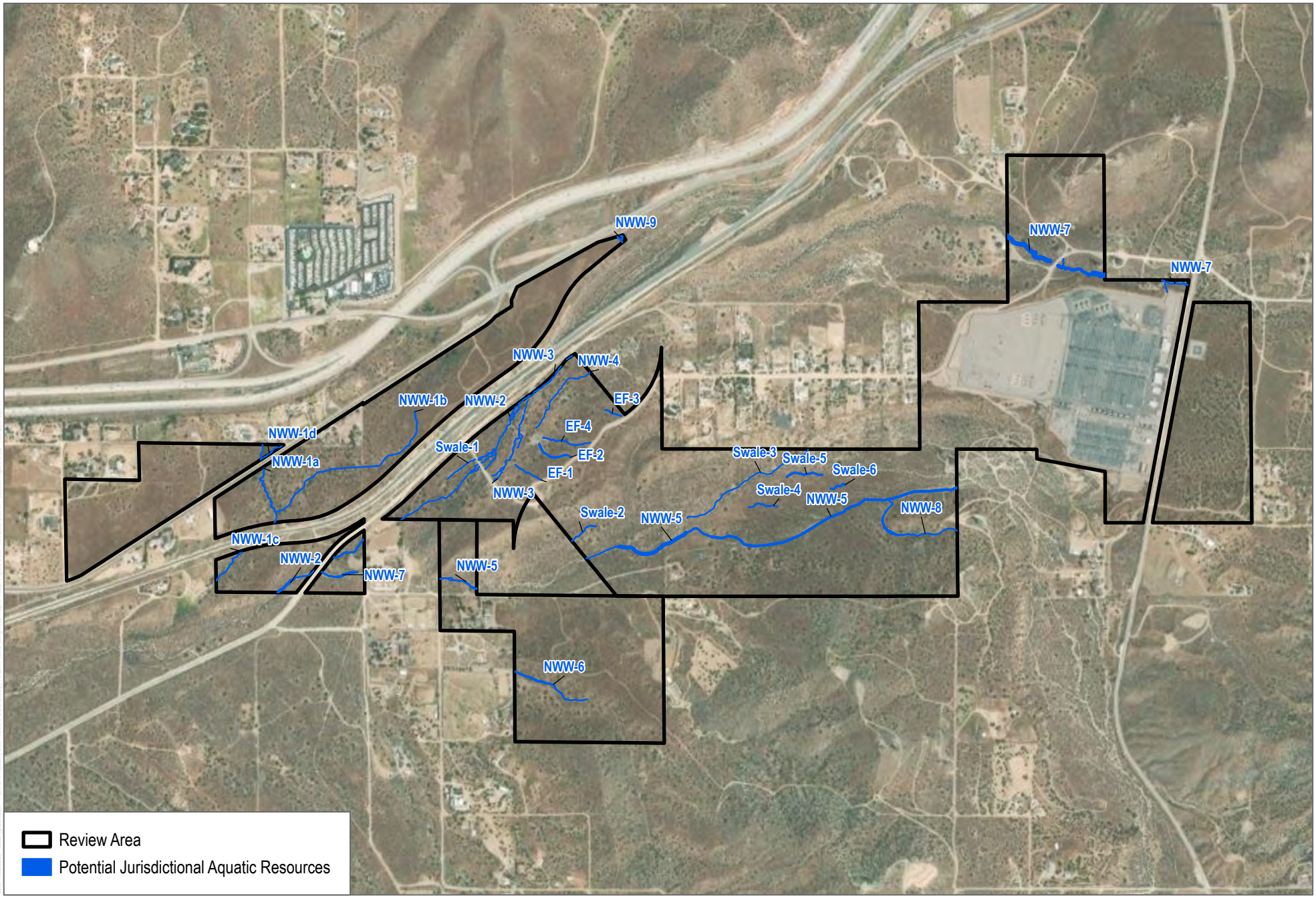

SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 5

JD - RWQCB/CDFW

Prairie Song Reliability Project

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Appendix A

Request for a Jurisdictional Determination

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: District Name Here

- I am requesting a JD on property located at: _____
  (Street Address)
  City/Township/Parish: Acton County: Los Angeles State: CA
  Acreage of Parcel/Review Area for JD: _____
  Section: _____ Township: _____ Range: _____
  Latitude (decimal degrees):_____ Longitude (decimal degrees): _____
  (For linear projects, please include the center point of the proposed alignment.)
- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ___ I plan to purchase this property.
  ☑ I am an agent/consultant acting on behalf of the requestor.
  ☐ Other (please explain): _____.
- Reason for request: (check as many as applicable)
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
  ☐ A Corps JD is required in order to obtain my local/state authorization.
  ☑ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
  ☐ I believe that the site may be comprised entirely of dry land.
  ☐ Other: _____
- Type of determination being requested:
  ☑ I am requesting an approved JD.
  ☐ I am requesting a preliminary JD.
  ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: _____ Date: _____

- Typed or printed name: Michael Cady
  Company name: Dudek
  Address: 225 S Lake Ave Suite 225-M210,
  Pasadena, CA 91101
  Daytime phone no.: 626 204 9841
  Email address: mcady@dudek.com

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Appendix B
Data Forms

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

OMB Control No. 0710-XXXX

Approval Expires:

Project ID #: NWW-1a	Site Name: Prairie Song Reliability Project	Date and Time: 1/6/2023
Location (lat/long): 34.483209°, -118.143593°	Investigator(s): Max Murray	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- ☐ gage data
- ☐ LiDAR
- ☐ geologic maps
- ☐ climatic data
- ☒ satellite imagery
- ☐ land use maps
- ☒ aerial photos
- ☒ topographic maps
- ☐ Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

No recent floods or droughts. The area is natural open space.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Waters conveyed by the feature enter the Review Area from a culvert beneath Soledad Canyon Road. The soil type associated with NWW-1a is Greenfield sandy loam, 2 to 9 percent slopes and the associated vegetation communities are Atriplex canescens Association and Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- ☒ **Break in slope:** x
  - ☒ *on the bank:* x
  - ☐ *undercut bank:*
  - ☐ *valley bottom:*
  - ☐ Other: _____
- ☐ **Shelving:**
  - ☐ *shelf at top of bank:*
  - ☐ *natural levee:*
  - ☐ *man-made berms or levees:*
  - ☐ *other berms:* _____
- ☐ **Channel bar:**
  - ☐ *shelving (berms) on bar:*
  - ☐ *unvegetated:*
  - ☐ *vegetation transition (go to veg. indicators)*
  - ☐ *sediment transition (go to sed. indicators)*
  - ☐ *upper limit of deposition on bar:*
- ☐ **Instream bedforms and other bedload transport evidence:**
  - ☐ *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - ☐ *bedforms (e.g., poofs, riffles, steps, etc.):*
  - ☐ *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- ☐ **Secondary channels:**

Sediment indicators

- ☐ **Soil development:**
- ☐ **Changes in character of soil:**
- ☐ **Mudcracks:**
- ☐ **Changes in particle-sized distribution:**
  - ☐ *transition from* _____ to _____
  - ☐ *upper limit of sand-sized particles*
  - ☐ *silt deposits:*

Vegetation Indicators

- ☒ **Change in vegetation type and/or density:** x

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***
  - ☒ *vegetation absent to:* woody shrubs
  - ☐ *moss to:*
  - ☐ *forbs to:*
  - ☐ *graminoids to:*
  - ☐ *woody shrubs to:*
  - ☐ *deciduous trees to:*
  - ☐ *coniferous trees to:*
- ☐ **Vegetation matted down and/or bent:**
- ☐ **Exposed roots below intact soil layer:**

Ancillary indicators

- ☐ **Wracking/presence of organic litter:**
- ☐ **Presence of large wood:**
- ☐ **Leaf litter disturbed or washed away:**
- ☐ **Water staining:**
- ☐ **Weathered clasts or bedrock:**

Other observed indicators?

Describe:

None

Step 4 Is additional information needed to support this determination?

☐ Yes ☒ No

If yes, describe and attach information to datasheet:

Project ID #: NWW-1a

Step 5 Describe rationale for location of OHWM

The OHWM is defined at the break of an incised bank so streambed.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☒ No If no, explain why not: See Appendix C

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description

OHWM Field Identification Datasheet Instructions and Field Procedure

Step 1 **Site overview from remote and online resources** **Complete Step 1 prior to site visit.**

Online Resources: Identify what information is available for the site. Check boxes on datasheet next to the resources used to assess this site.

a. gage data
b. aerial photos
c. satellite imagery
d. LiDAR
e. topographic maps
f. geologic maps
g. land use maps
h. climatic data (precipitation and temperature)

Landscape context: Use the online resources to put the site in the context of the surrounding landscape.

a. **Note on the datasheet under Step 1:**
   i. Overall land use and change if known
   ii. Recent extreme events if known (e.g., flood, drought, landslides, debris flows, wildfires)
b. Consider the following to inform weighting of evidence observed during field visit.
   i. What physical characteristics are likely to be observed in specific environments?
   ii. Was there a recent flood or drought? Are you expecting to see recently formed or obscured indicators?
   iii. How will land use affect specific stream characteristics? How natural is the hydrologic regime? How stable has the landscape been over the last year, decade, century?

Step 2 Site conditions during the field assessment (assemble evidence)

a. Identify the assessment area.
b. Walk up and down the assessment area noting all the potential OHWM indicators.
c. Note broad trends in channel shape, vegetation, and sediment characteristics.
   i. Is this a single thread or multi-thread system? Is this a stream-wetland complex?
   ii. Are there any secondary and/or floodplain channels?
   iii. Are there obvious man-made alterations to the system?
   iv. Are there man-made (e.g., bridges, dams, culverts) or natural structures (e.g., bedrock outcrops, Large Wood jams) that will influence or control flow?
d. Look for signs of recurring fluvial action.
   i. Where does the flow converge on the landscape?
   ii. Are there signs of fluvial action (sediment sorting, bedforms, etc.) at the convergence zone?
e. Look for indicators on both banks. If the opposite bank is not accessible, then look across the channel at the bank.
f. **In Step 2 of the datasheet** describe any adjacent land use or flow conditions that may influence interpretation of each line of evidence.
   i. What land use and flow conditions may be affecting your ability to observe indicators at the site?
   ii. What recent extreme events may have caused changes to the site and affected your ability to observe indicators?

Step 3a List evidence

Assemble evidence by checking the boxes next to each line of evidence:

a. If needed, use a separate scratch datasheet to check boxes next to possible indicators, or check boxes of possible indicators in pencil and use pen for final decision.
b. If using fillable form, then follow the instructions for filling in the fillable form.

Context is important when assembling evidence. For instance, pool development may be an indicator of interest on the bed of a dry stream, but may not be a useful indicator to take note of in a flowing stream. On the other hand, if the pool is found in a secondary channel adjacent to the main channel, it could provide a line of evidence for a minimum elevation of high flows. Therefore, consider the site context when deciding which indicators provide evidence for identifying the OHWM. Explain reasoning in Step 5.

Questions to consider while making observations and listing evidence at a site:

Geomorphic indicators	**Sediment and soil indicators**	**Vegetation Indicators**	**Ancillary indicators**
Where are the breaks in slope?	Where does evidence of soil formation appear?	Where are the significant transitions in vegetation species, density, and age?	Is there organic litter present?
Are there identifiable banks?		Is there vegetation growing on the channel bed?	
Is there an easily identifiable top of bank?	Are there mudcracks present?	If no, how long does it take for the non-tolerant vegetation to establish relative to how often flows occur in the channel?	Is there any leaf litter disturbed or washed away?
Are the banks actively eroding?			
Are the banks undercut?	Is there evidence of sediment sorting by grain size?	Where are the significant transitions in vegetation?	Is there large wood deposition?
Are the banks armored?			
Is the channel confined by the surrounding hillslopes?		Is the vegetation tolerant of flowing water?	Is there evidence of water staining?
Are there natural or man-made berms and levees?		Has any vegetation been flattened by flowing water?	
Are there fluvial terraces?			
Are there channel bars?			

Are the following features of fluvial transport present?

Evidence of erosion: obstacle marks, scour, armoring
Bedforms; riffles, pools, steps, knickpoints/headcuts
Evidence of deposition: imbricated clasts, gravel sheets, etc.

In some cases, it may be helpful to explain why an indicator was NOT at the OHWM elevation, but found above or below. It can also be useful to note if specific indicators (e.g., vegetation) are NOT present. For instance, note if the site has no clear vegetation zonation.

OHWM Field Identification Datasheet Instructions and Field Procedure

Step 3b Weight each line of evidence and weigh body of evidence

Weight each indicator by considering its importance based upon:

a. Relevance:

i. Is this indicator left by low, high, or extreme flows?

Tips on how to assess the indicator relative to type of flow:

Consider the elevation of the indicator relative to the channel bed. What is the current flow level based on season or nearby gages? Consider the elevation of the indicator relative to the current flow. If the stream is currently at baseflow and indicator is adjacent to that, then it is likely a low flow indicator. The difference between high and extreme flow indicators can sometimes be difficult to determine.

***Landscape context from Step 1 can help determine the relevance, strength, and reliability of the indicators observed in the field.**

***Information in Chapter 2 of the OHWM field manual provides information on specific indicators which can assist in putting these in context and determining relevance, strength, and reliability.**

ii. Did recent extreme events and/or land use affect this indicator?

1. Recent floods may have left many extreme flow indicators, or temporarily altered channel form. Other resources will likely be needed to support any OHWM identification at this site. Field evidence of the OHWM may have to wait for the site to recover from the recent flood.
2. Droughts may cause field evidence of OHWM to be obscured, because there has been an extended time since the last high flow event. There can be overgrowth of vegetation or deposition of material from surrounding landscape that can obscure indicators.
3. Both man-made (e.g., dams, construction, mining activities, urbanization, agriculture, grazing) and natural (e.g., fires, floods, debris flows, beaver dams) disturbances can all alter how indicators are expected to appear at a site. Chapter 6 and Chapter 7 of the OHWM field manual provides specific case-studies that can help in interpreting evidence at these sites.

b. Strength:

i. Is this indicator persistent across the landscape?

1. Look up and downstream and across the channel to see if you see the same indicator at multiple locations.
2. Does the indicator occur at the same elevation as other indicators?

c. Reliability:

i. Is this indicator persistent on the landscape over time? Will this indicator still persist across seasons?

1. This can be difficult to determine for some indicators and may be specific to climatic region (in terms of persistence of vegetation) and history of land use or other natural disturbances.
2. Chapter 2, Chapter 6, and Chapter 7 of the OHWM field manual describes each indicator in detail and provides examples of areas where indicators are difficult to interpret.

d. Weigh body of evidence:

i. Combine weights: integrate the weighted line of evidence (relevance, strength, reliability) of each indicator.

ii. For each of the observed indicators, which are more heavily weighted? Where do high value indicators co-occur along the stream reach? Do they co-occur at a similar elevation along the banks relative to water surface (or channel bed if there is no water).

iii. On datasheet, select the indicators used to identify the OHWM. Information in Chapter 2 of the OHWM field manual provides descriptions of specific indicators which can assist in putting these in context and determining relevance, strength, and relieability.

e. Take photographs of indicators and attach a log using either page 2 of datasheet or another method of logging photos.

i. Annotate photos with descriptions of indicators.

Step 4 Is additional information needed? Are other resources needed to support the lines of evidence observed in the field?

a. If additional resources are needed, then repeat steps 3a and 3b for the resources selected in Step 1 of assembling, weighting, and weighing evidence collected from online resources. Chapter 5 of the OHWM field manual provides information on using online resources.

b. Any data collected from online tools have strengths and weaknesses. Make sure these are clear when determining relevance, strength, and reliability of the remotely collected data. Clearly describe why other resources were needed to support the lines of evidence observed in the field, as well as the relevance, strength, and reliability of the supporting data and/or resources.

c. Attach any remote data and data analysis to the datasheet.

Step 5 Describe rationale for location of OHWM:

a. Why do the combination of indicators represent the OHWM?

b. If there are multiple possibilites for the OHWM, explain why there are two (or more) possibilities. Include any relevant discussion on why specific indicators were not included in the final decision.

c. If needed, add additional site notes on page 2 of the datasheet under Step 5.

Appendix C
Review Area Photos

Photo 1. NWW-1b at OHWM form point, looking upstream.

Photo 2. NWW-2 at OHWM form point, looking downstream.

Photo 3. NWW-2 at OHWM form point, looking upstream.

Photo 4. NWW-2 near Carson Mesa Road.

Photo 5. NWW-3 at OHWM form point, looking upstream.

Photo 6. NWW-3 at OHWM form point, looking downstream.

Photo 7. NWW-4 at OHWM form point, looking upstream.

Photo 8. NWW-4 at its downstream terminus.

Photo 9. NWW-5 at OHWM form point, looking downstream.

Photo 10. NWW-5 at OHWM form point, looking upstream.

Photo 11. NWW-5 near its terminus at equestrian property.

Photo 12. NWW-6 at OHWM form point, looking downstream.

Photo 13. NWW-6 at OHWM form point, looking upstream.

Photo 14. NWW-7 at OHWM form point, looking downstream.

Photo 15. Representative photo of Swale-3.

Photo 16. Representative photo of Swale-5.

Photo 17. Representative photo of Swale-6.

Photo 18. Representative photo of Erosional Feature-1.

Photo 19. Representative photo of Erosional Feature-2.

Photo 20. Representative photo of Erosional Feature-3.

Photo 21. Representative photo of NWW-1a north of Soledad Canyon Road.

Photo 22. Representative photo of NWW-1d.

Photo 23. Representative photo of NWW-8.

Appendix D
Mapbook

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 30 60 Feet 1 inch = 61 feet

EF-1

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 37.5 75 Feet 1 inch = 75 feet

EF-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

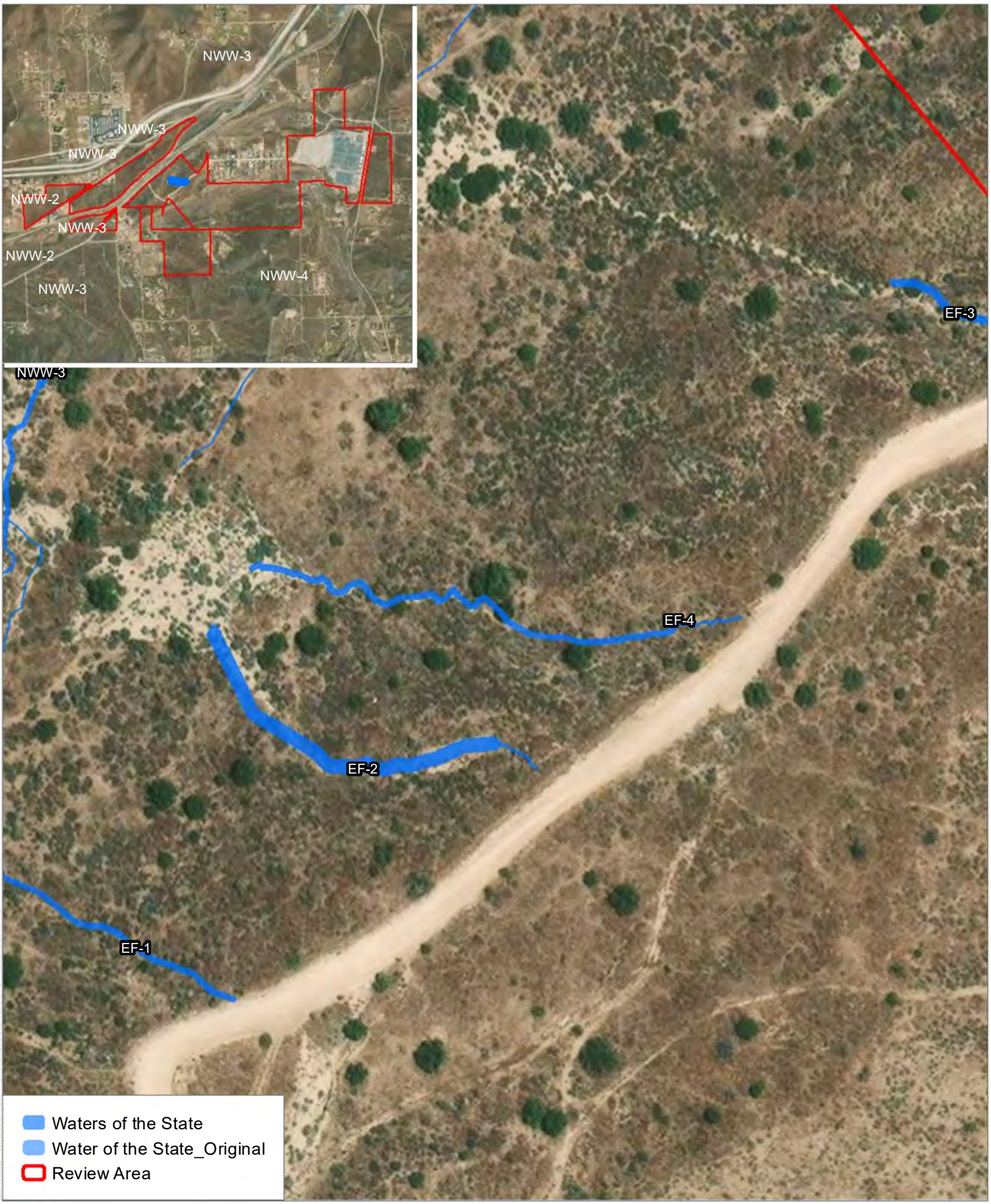
0 15 30 Feet

1 inch = 38 feet

EF-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 55 110 Feet 1 inch = 112 feet

EF-4

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

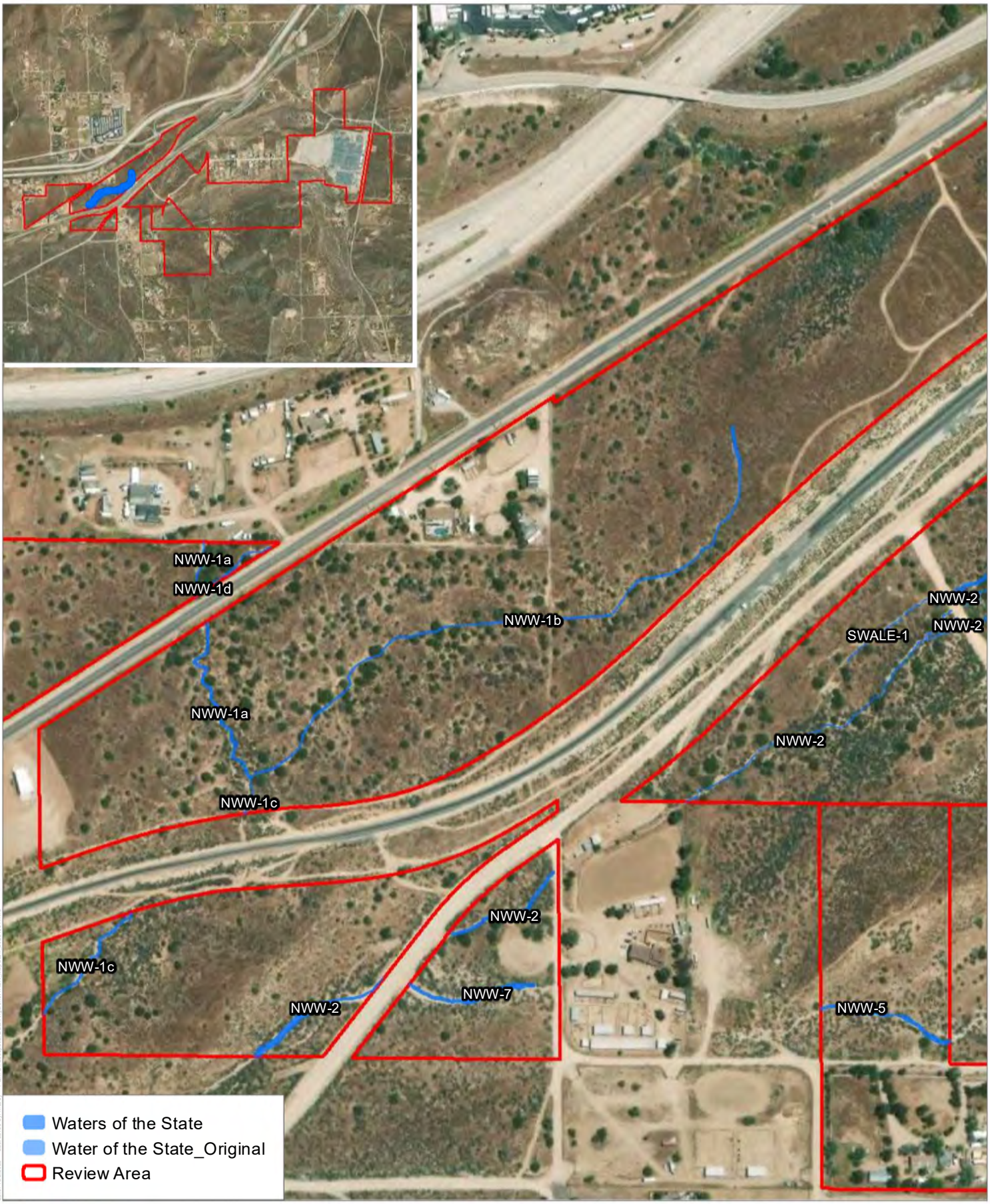
DUDEK

0 65 130 Feet 1 inch = 132 feet

NWW-1a

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

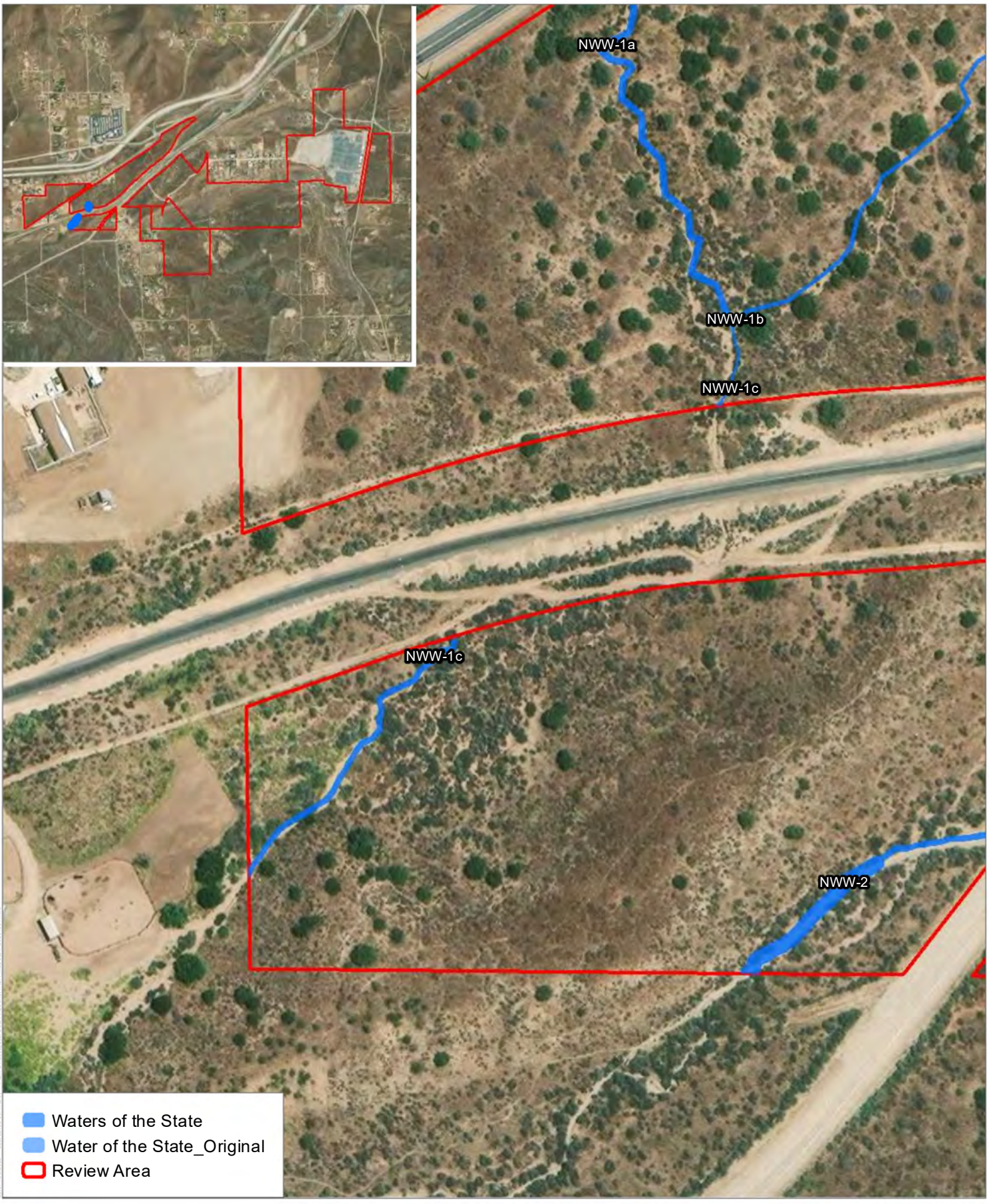
DUDEK

0 165 330 Feet 1 inch = 330 feet

NWW-1b

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 70 140 Feet 1 inch = 141 feet

NWW-1c

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

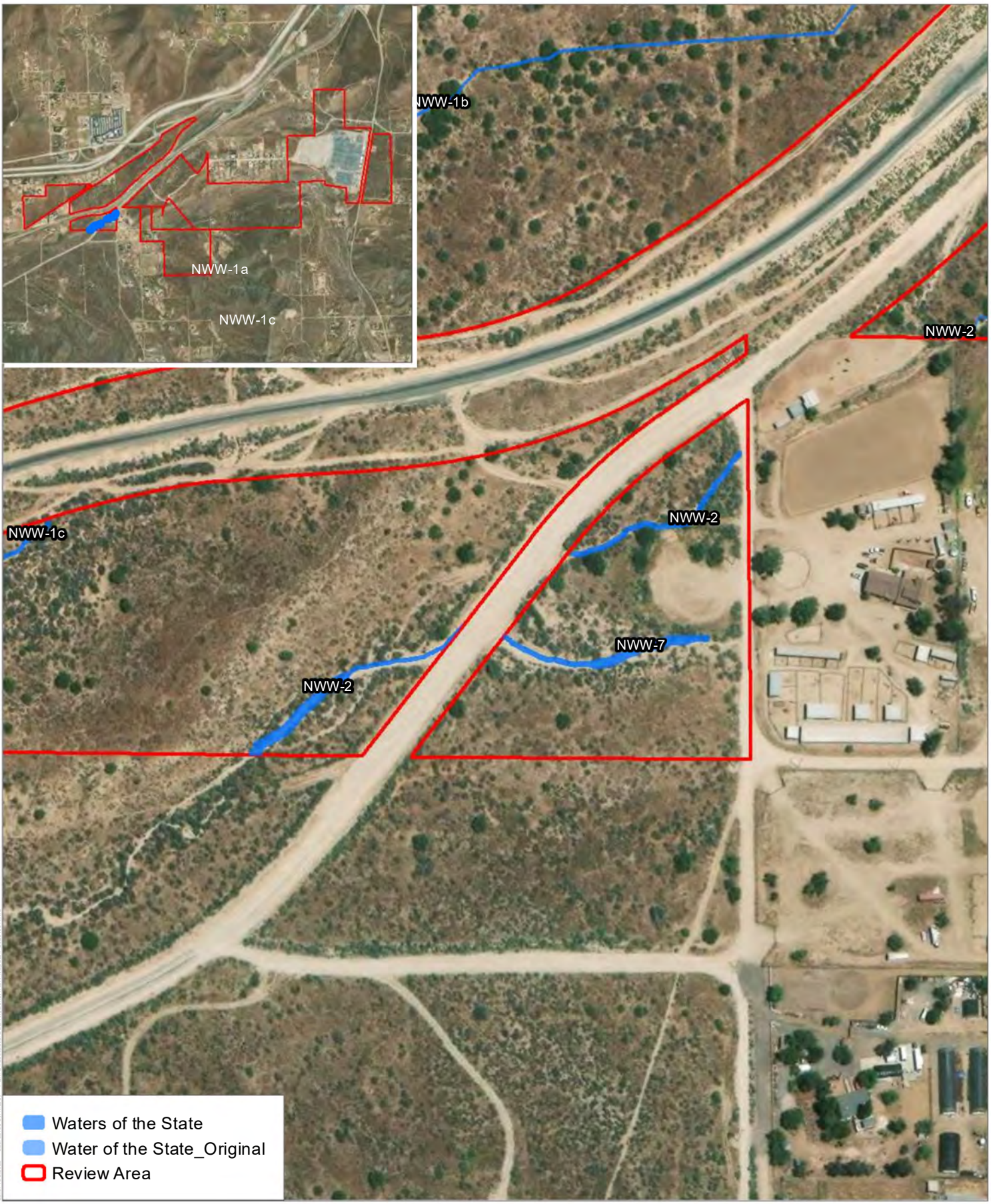
0 20 40 Feet

1 inch = 49 feet

NWW-1d

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 100 200 Feet 1 inch = 202 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 65 130 Feet 1 inch = 132 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

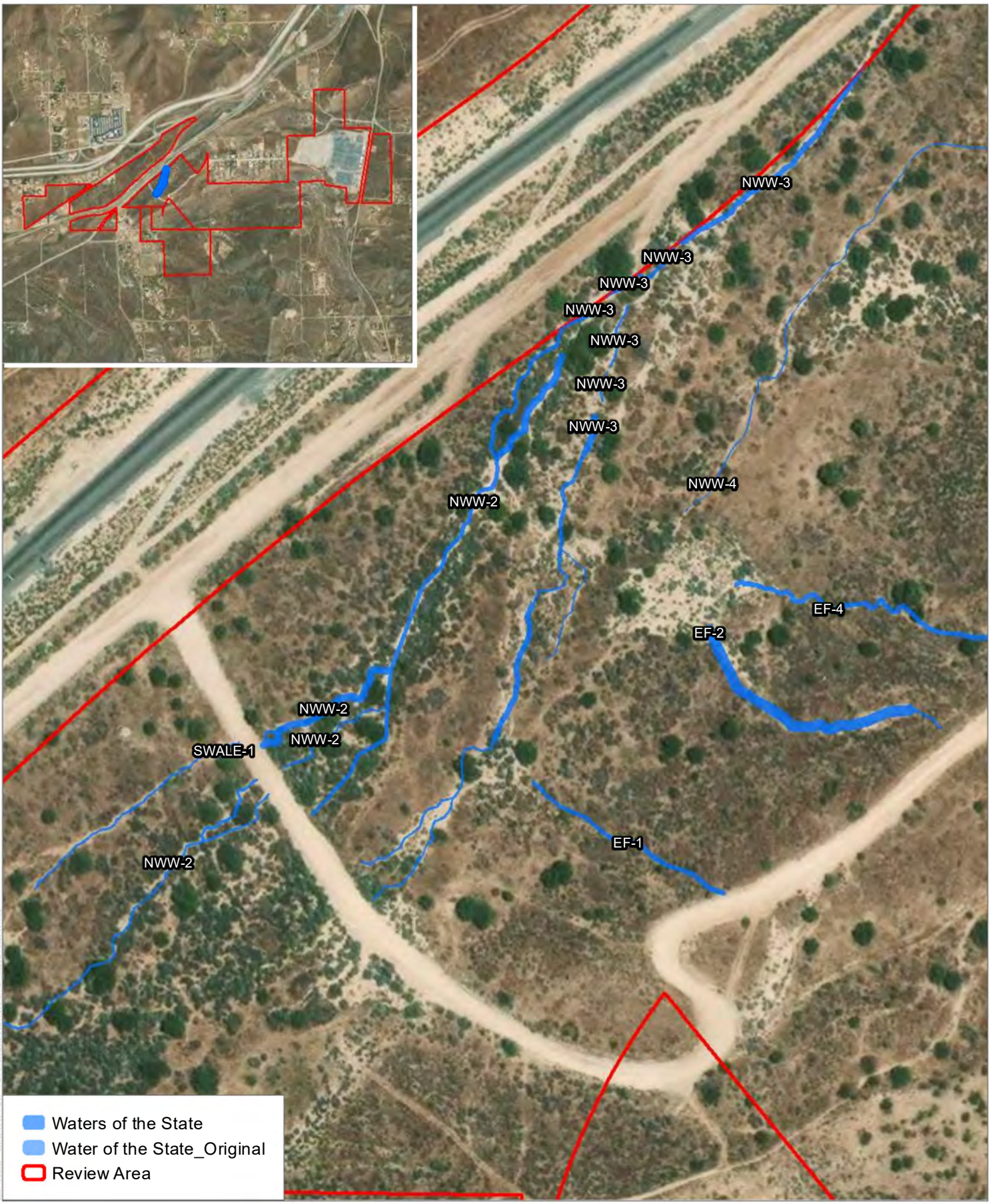
DUDEK

0 90 180 Feet 1 inch = 183 feet

NWW-2

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

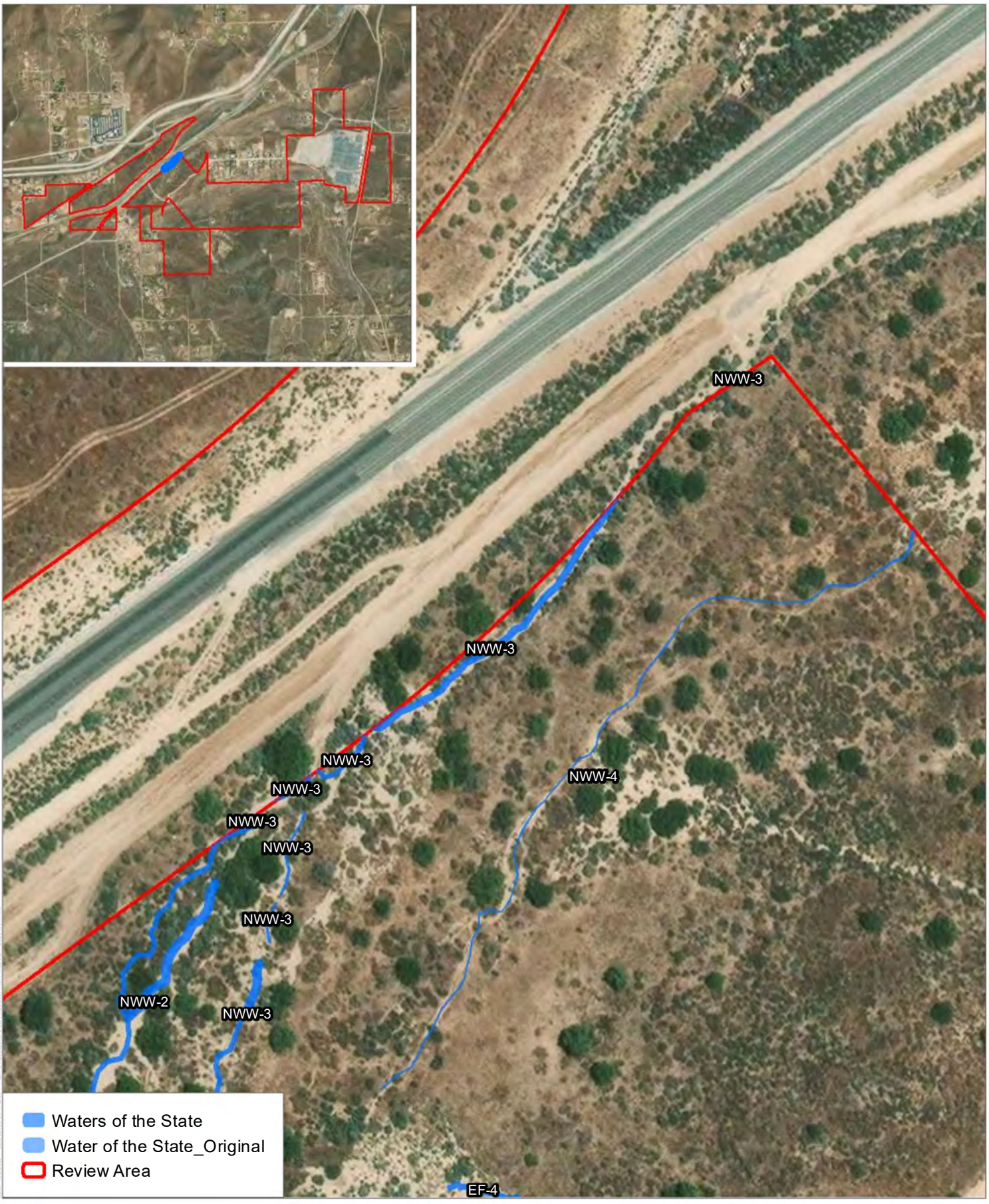
DUDEK

0 75 150 Feet 1 inch = 156 feet

NWW-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

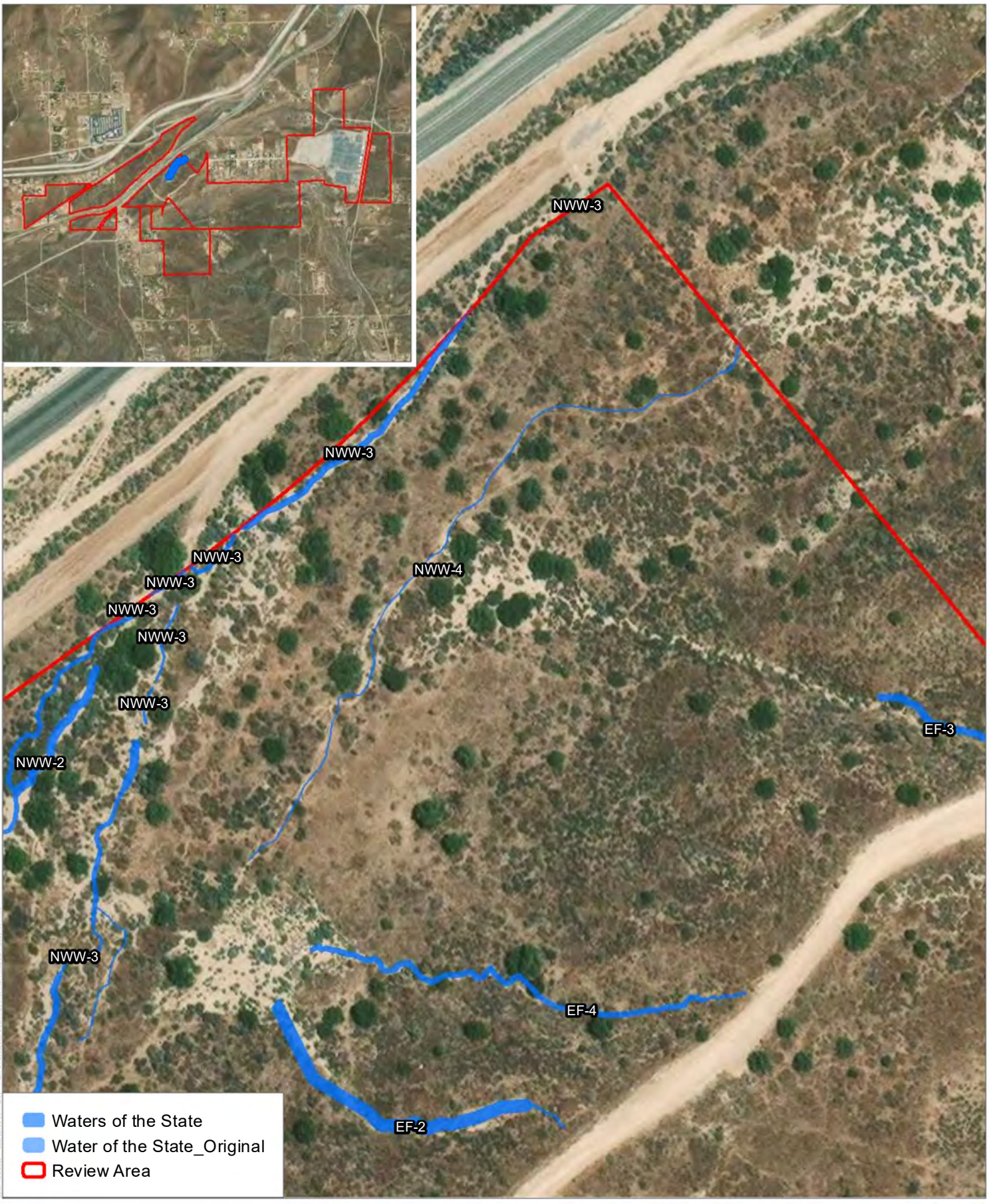
0 55 110 Feet

1 inch = 116 feet

NWW-3

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

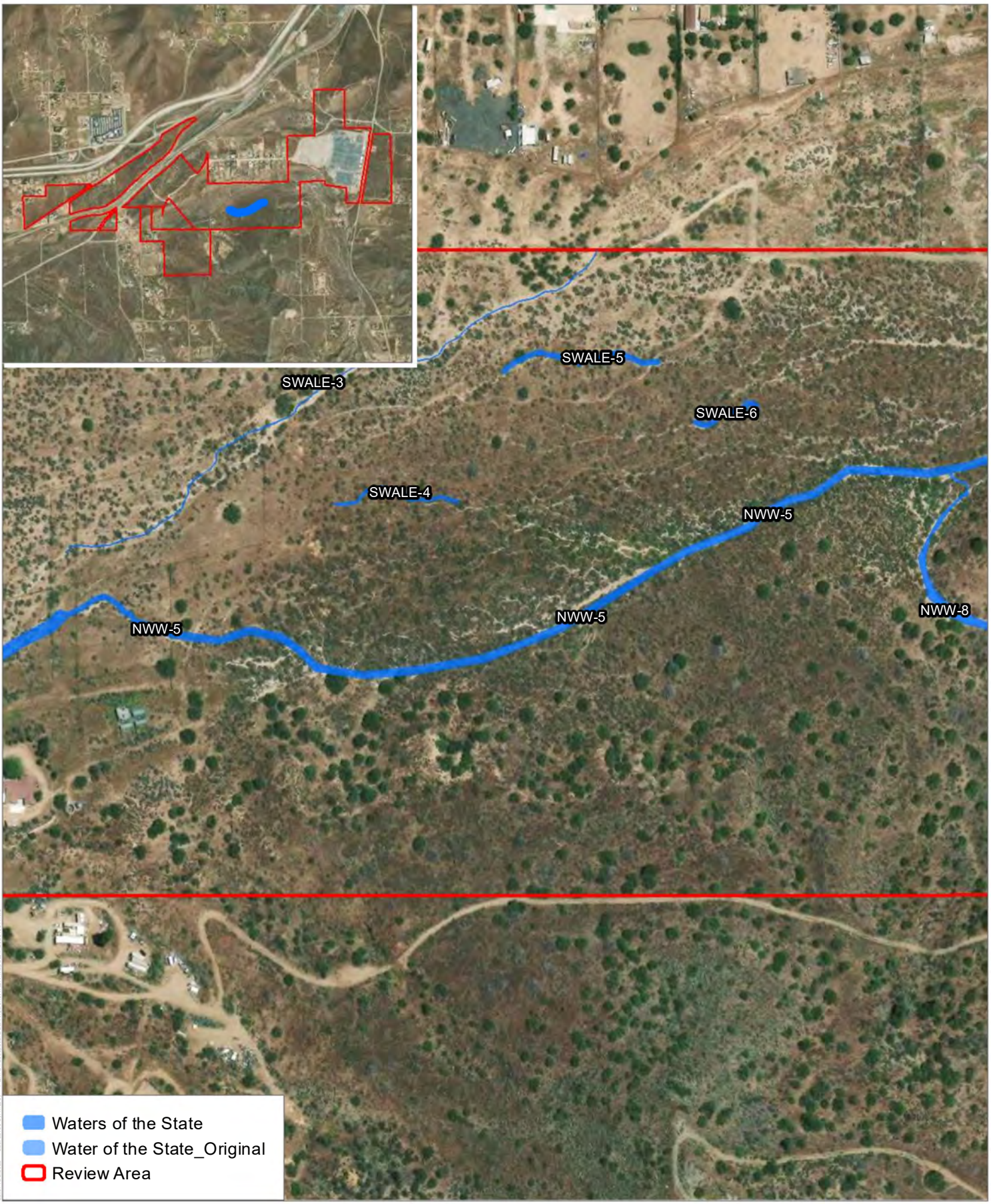
DUDEK

0 62.5 125 Feet 1 inch = 126 feet

NWW-4

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 130 260 Feet 1 inch = 262 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

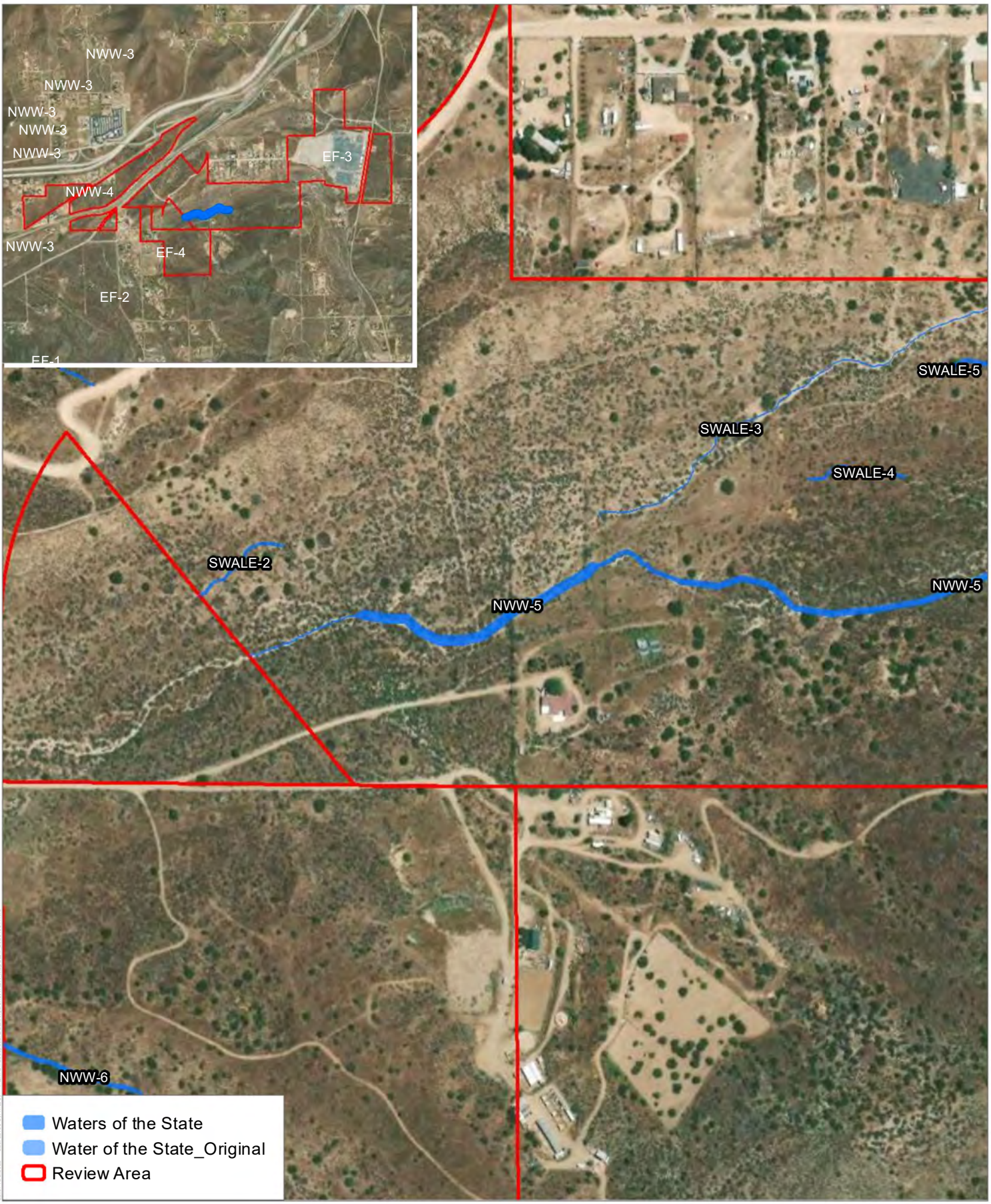
0 40 80 Feet

1 inch = 87 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

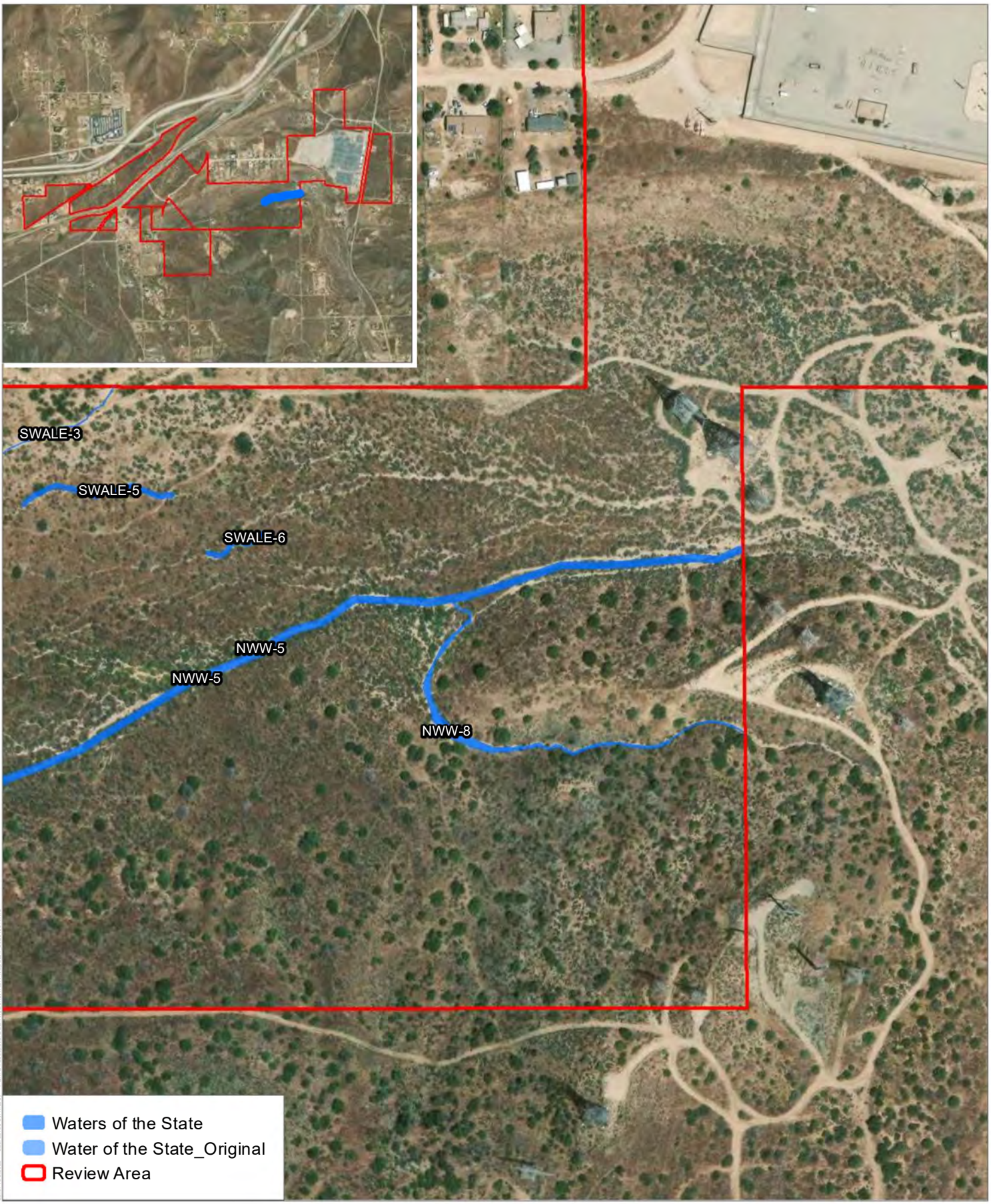
DUDEK

0 165 330 Feet 1 inch = 333 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 137.5 275 Feet 1 inch = 272 feet

NWW-5

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 85 170 Feet 1 inch = 168 feet

NWW-6

Potential Jurisdictional Waters

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 40 80 Feet

1 inch = 85 feet

NWW-7

Potential Jurisdictional Waters

Prairie Song Reliability Project