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Project Title:	Prairie Song Reliability Project
TN #:	264475
Document Title:	App 3-2E Waste Discharge Requirements Application Part 1
Description:	N/A
Filer:	Erin Phillips
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	6/27/2025 9:18:48 AM
Docketed Date:	6/27/2025

Appendix 3.2E

Waste Discharge Requirements Application

1 of 3

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June 26, 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 B
2. The specific location of any discharge(s) that may result from the proposed activity.	See Attachment C
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 C
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 A

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. Project Description
- C. Figures
- 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
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:	140 Broadway, 46th Floor
City:	New York, NY
State:	New York
County:	New York
Zip Code:	10005-1155
Telephone:	888-287-9058
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 C 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 B, 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 B, 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)	6/26/25	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: _____		

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:	lisa.worrall@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	Preparation will be initiated once the AB 205 application is deemed complete	TBD	California Energy Commission
Environmental Document			

Enter State Clearinghouse number here: _____

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

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? 7 *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: 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	0.18
Cubic Yards	–
Linear Feet	1,290

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	0.04
Cubic Yards	–
Linear Feet	2,375

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 C 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 an 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: **0.69** 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 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 **[Print Duly Authorized Representative's Name]** 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

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 onsite 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.

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 unincorporated community of Acton, as shown in Figure 1, Regional Map (all figures can be found at the end of the document). 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 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 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 of two 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 will be installed underground within the Southern Gen-Tie Route corridor. The two 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 Project Objectives

The Project's principle Basic Objectives include the following:

- Construct and operate an up to 1,150-MW 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 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 1,150-MW 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 500 kV 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.

3 Project Components

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

3.1 General Facility Description, Design, and Operation

The BESS Facility will include the following primary components (refer to Section 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, 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 x W x H)
PCS	517*	20 ft × 8 ft × 9.5 ft (L x W x H)
MV Collection system	—	Buried in trenches up to 10 ft × 10 ft (W x D)
Project Substation Area	1	2,545 ft x 440 ft (L x W); seven 150 ft (H) (lightning masts)
Control Building	1	27 ft W x 95 ft L x 10 ft H (to ceiling)
Access Roads	—	26 ft (W) internal radii 55 ft minimum
Fire Water Tanks	2	33 ft in Diameter x 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 x 60 ft x 15 ft (L x W x H)

Notes:

* 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:

* 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.

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 (BMS), fire detection systems, thermal management systems (either liquid or air cooled depending on 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.

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 (NEMA) rated enclosures.

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 34.5 kilovolts. 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 26-foot-wide underground corridor will house the MV collection system as it traverses the road. The 26-foot-wide corridor within Soledad Canyon Road will also house the proposed water line that will serve the O&M buildings (see the discussion in Section 3.1.10 for details regarding the O&M water line). The MV collection and water line proposed within Soledad Canyon Road will be installed underground using trenching.

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 500-kV to 34.5-kV 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 34.5-kV, and transported to the Project substation through the MV collection system before being stepped up to 500-kV 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.

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.

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.

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). 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.

3.1.8 Site Security

The BESS facility site will be enclosed with a minimum 8-foot-tall block wall topped with one (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.

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 (BMS) 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 Rd.) will have primary and secondary access points. The BESS yard north of Soledad Canyon Rd. 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 Rd. 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 Rd. 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 onsite well that will serve 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 Los Angeles County Fire Department will review and comment on the facility fire protection and suppression plans.

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 washrooms and a septic system 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 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. A portion of the water line will be located within Soledad Canyon Road as shown in Figure 2. As discussed above in Section 3.1.3, the portion of the water line that crosses Soledad Canyon Road will be sited within the proposed 26-

foot-wide corridor that will also house the MV collection system as it crosses the road. Like the MV collection system within the road, the water line will be installed using trenching. The O&M buildings will be powered via a distribution line from the Project substation.

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.

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 500-kV 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, 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:

- 500-kV 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 3, Transmission Line Route, shows the gen-tie routes, scattered rural residences, recreational areas, scenic drives, and existing transmission lines 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
500-kV 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

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	1.64 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total	**4.12 acres**	**Approximately 23.63 acres**
SCE Portion		
Transmission Structure Pad	0.3 acres	—
Transmission Structure Access Path	0.5 acres	—

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

Component	Permanent Disturbance	Temporary Disturbance
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	8.99 acres
SCE Total	**0.8 acres**	**8.99 acres**

3.2.1 500-kV Gen-Tie Line

The 500-kV 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 Point of Interconnection (POI) at the Vincent Substation. The Project proposes a Northern Gen-Tie Route and Southern Gen-Tie Route. The Applicant understands that a crossing agreement with the Los Angeles County Metropolitan Transportation Authority (LACMTA) will be required prior to construction. LACMTA requires a crossing agreement application to include a 90 percent design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

The interconnecting 500 kV transmission single-circuit configuration will be overhead. The gen-tie line will be constructed with either monopole tubular steel poles (TSPs) 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 eleven (11) 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* (Avian Power Line Interaction Committee [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 Point of Change of Ownership (POCO) will be located on APN 3056-015-023 (see Pole 10 within Figure 2). The Point of Change of Ownership (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.

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.

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:

- Install optical ground wire (OPGW) on the Generation Tie-Line to provide one (1) of three (3) telecommunication paths required for the line protection scheme, the remote terminal units (RTUs). A minimum of eight (8) strands within the OPGW 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 telecommunication paths (including OPGW, 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 RTU 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 SCE's Interconnection Facilities.
- Install the 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 1- foot x 4-foot x 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 the 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 the 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 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 1- foot x 4-foot x 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 (HDD) underneath the railroad tracks. HDD is a trenchless construction technique used to install underground utilities like pipelines and conduits without disturbing the surface. The Applicant understands that a crossing agreement with the Los Angeles County Metropolitan Transportation Authority (LACMTA) will be required prior to construction. LACMTA requires a crossing agreement application to include a 90 percent design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

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 (CCVTs), 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.

4 Construction

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

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 six (6) months. Initial mobilization and site preparation is anticipated to begin no later than March 2027 and testing and commissioning are 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) 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 5.

Table 5. 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

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 6.

Table 6. BESS Project - Construction Equipment and Usage Assumptions

	One-Way Vehicle Trips			Equipment		
Construction Phase	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

Table 6. 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 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
				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:

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 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.

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 2019), 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.

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.

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 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.

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.

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 paths 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.

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 travel. 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.

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, one (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 #1 to #9 if the Northern Gen-Tie Route is selected, and transmission structures #3 to #5 if the Southern Gen-Tie Route is selected (please see Figure 2 for transmission structure numbering). Helicopter use would be supported by one 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 of the other two laydown areas depending on the sequencing of construction.

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 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. These upgrades are described in Section 3.2.4 above.

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 onsite tanks and serviced by trucks. Drinking water will be provided via portable water coolers.

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.

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.

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.

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 requirements such as persons or entities to notify when equipment has become available for acceptance tests.

Commissioning will include testing 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, Supervisory Control and Data Acquisition (SCADA) systems, power backup systems, and fire protection systems. 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.

5 Operations and Maintenance

Once constructed, the Project will be available to operate seven 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 North American Electric Reliability Corporation-Critical Infrastructure Protection 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 full-time staff members for remote monitoring and 16 full-time operations staff members on site.

Onsite 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 major maintenance inspection will take place annually.

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 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 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, and environmental analyses in subsequent chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

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.

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.

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.

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 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.

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 sited 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 understanding 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 (California ISO (a)), 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 increases (California ISO (b)). In addition, CAISO is projecting that there will be a total potential curtailment of 1,300GWh of wind and solar from the SCE North area in 2034, absent storage availability (California ISO (a)). 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.

8 References

APLIC (Avian Power Line Interaction Committee). 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Accessed June 2025. https://www.nrc.gov/docs/ml1224/ml12243a391.pdf

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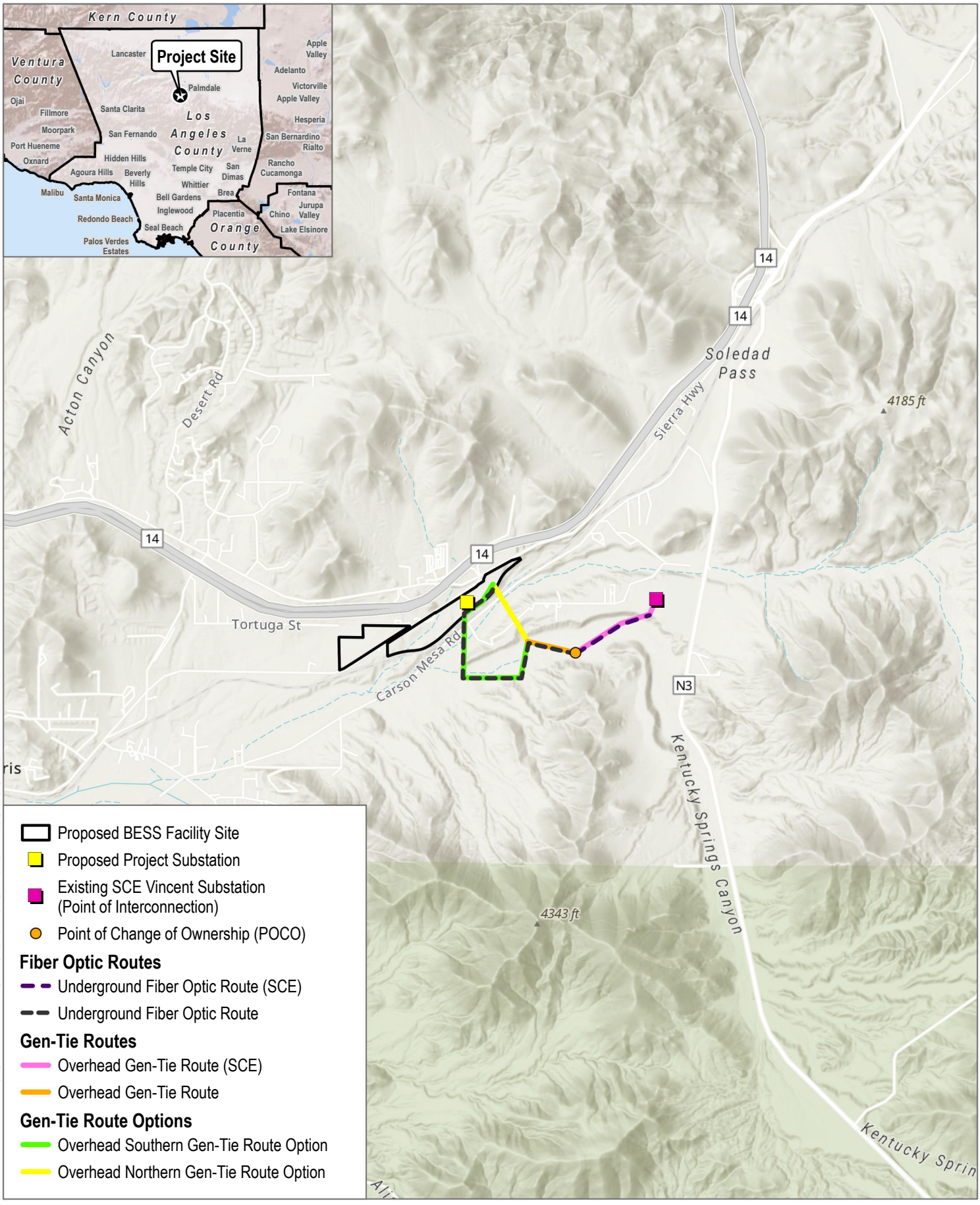

SOURCE: World Topographic

DUDEK

0 1,500 3,000 Feet

FIGURE 1

Regional Map

Prairie Song Reliability Project

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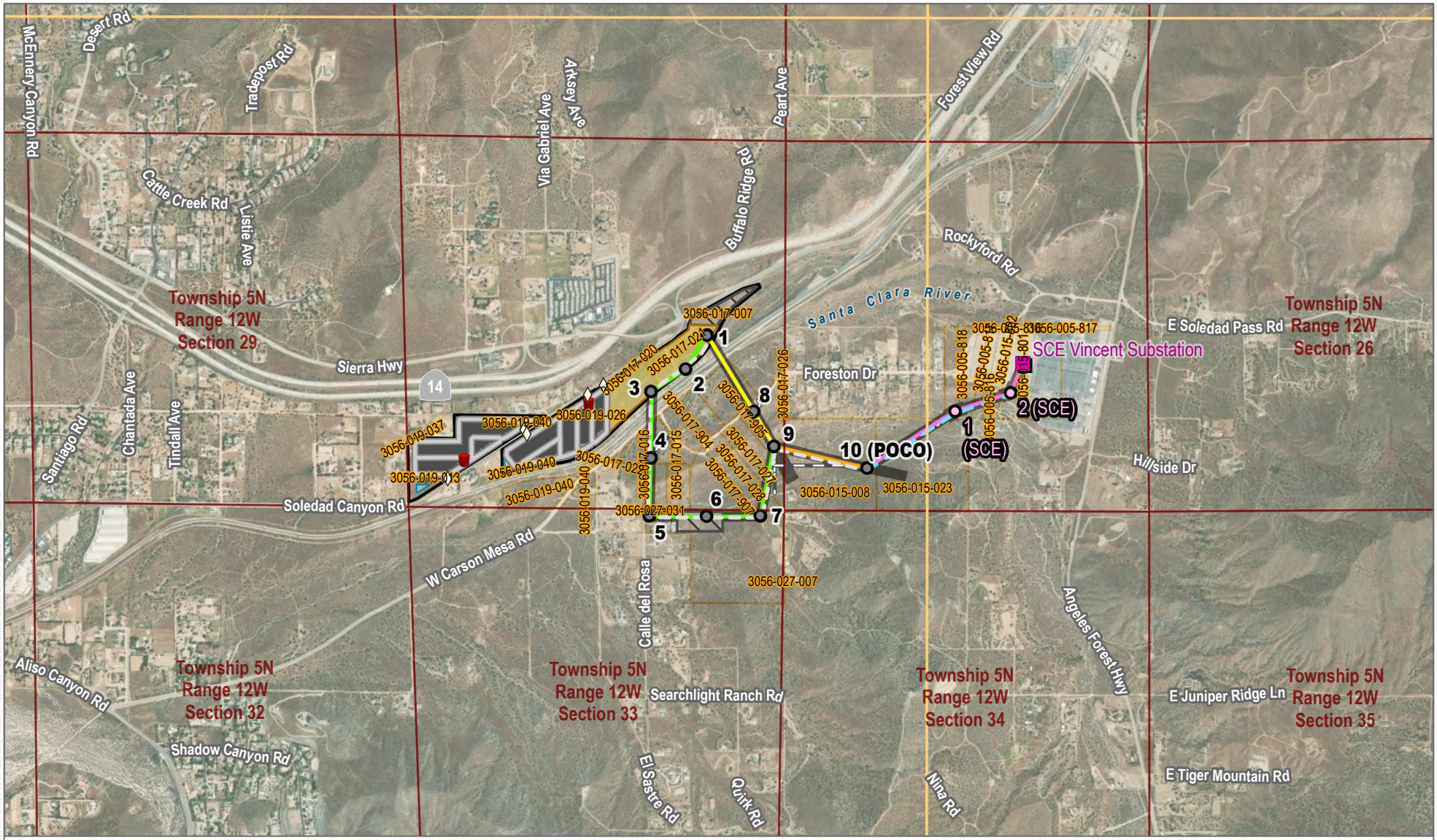

SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

DUDEK

0 500 1,000 Feet

FIGURE 2

Project Site Plan

Prairie Song Reliability Project

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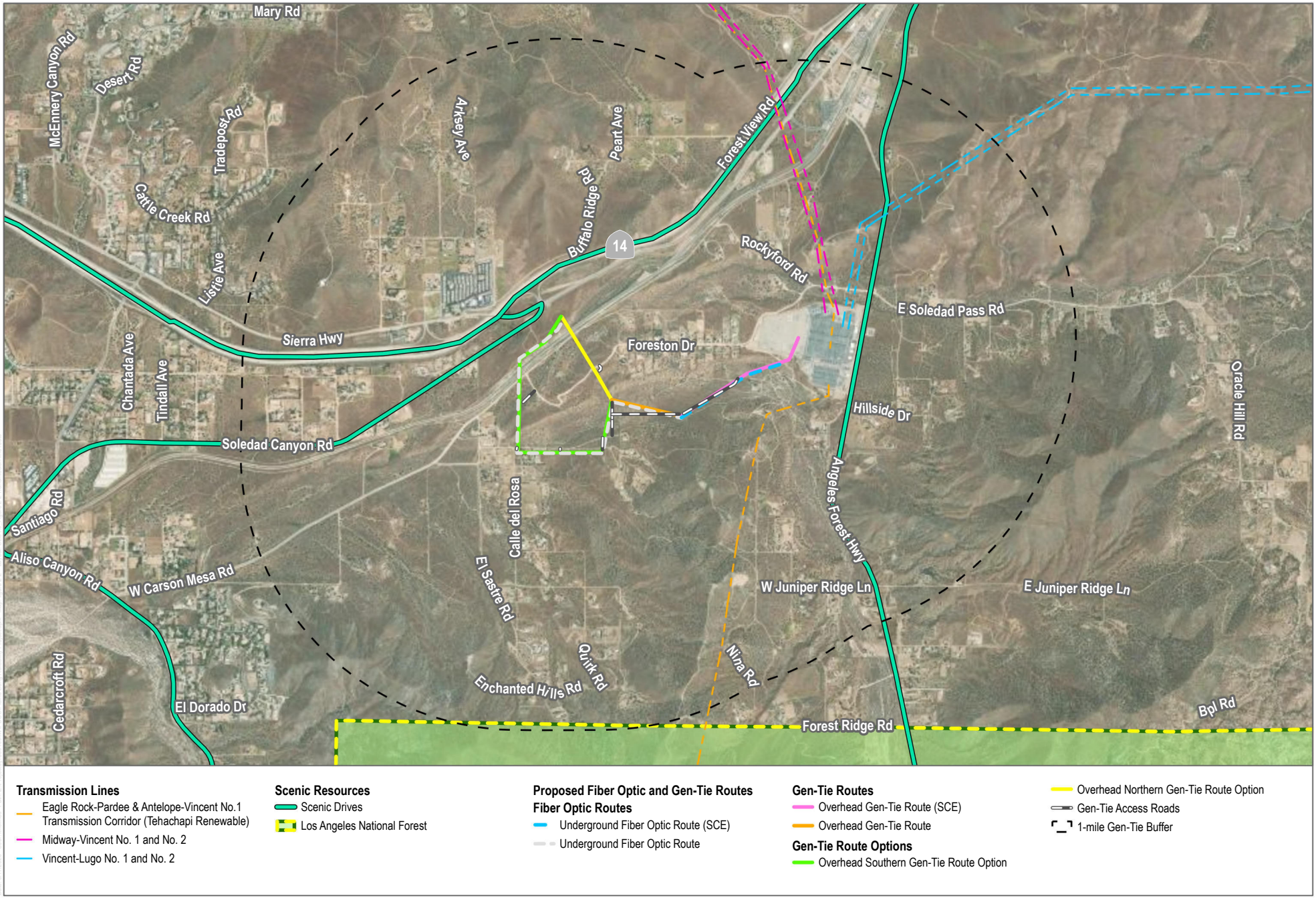

SOURCE: Los Angeles County; USFWS; CEC

DUDEK

0 1,000 2,000 Feet

FIGURE 3

Transmission Line Route

Prairie Song Reliability Project

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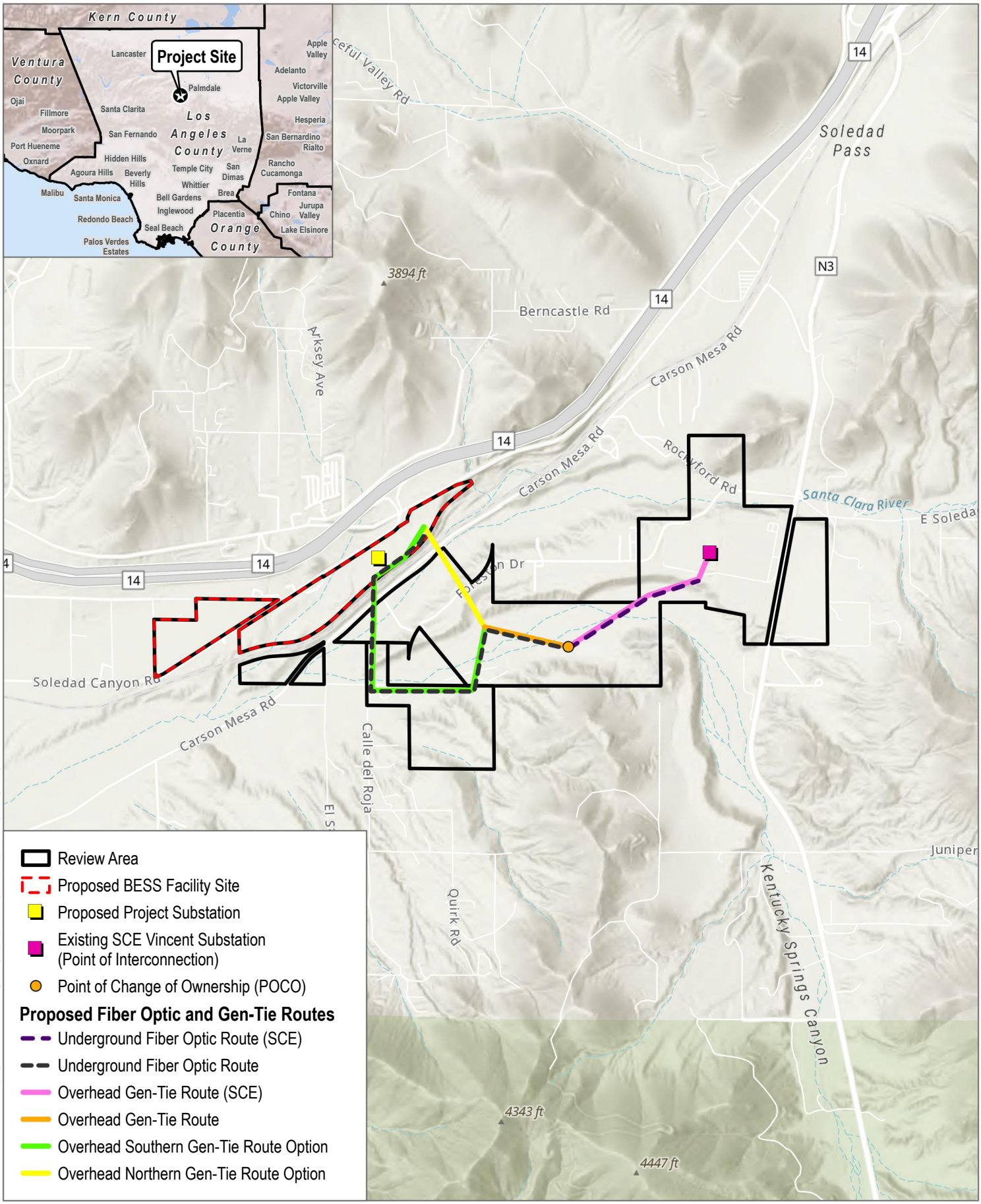
Attachment C
Figures



SOURCE: World Topographic

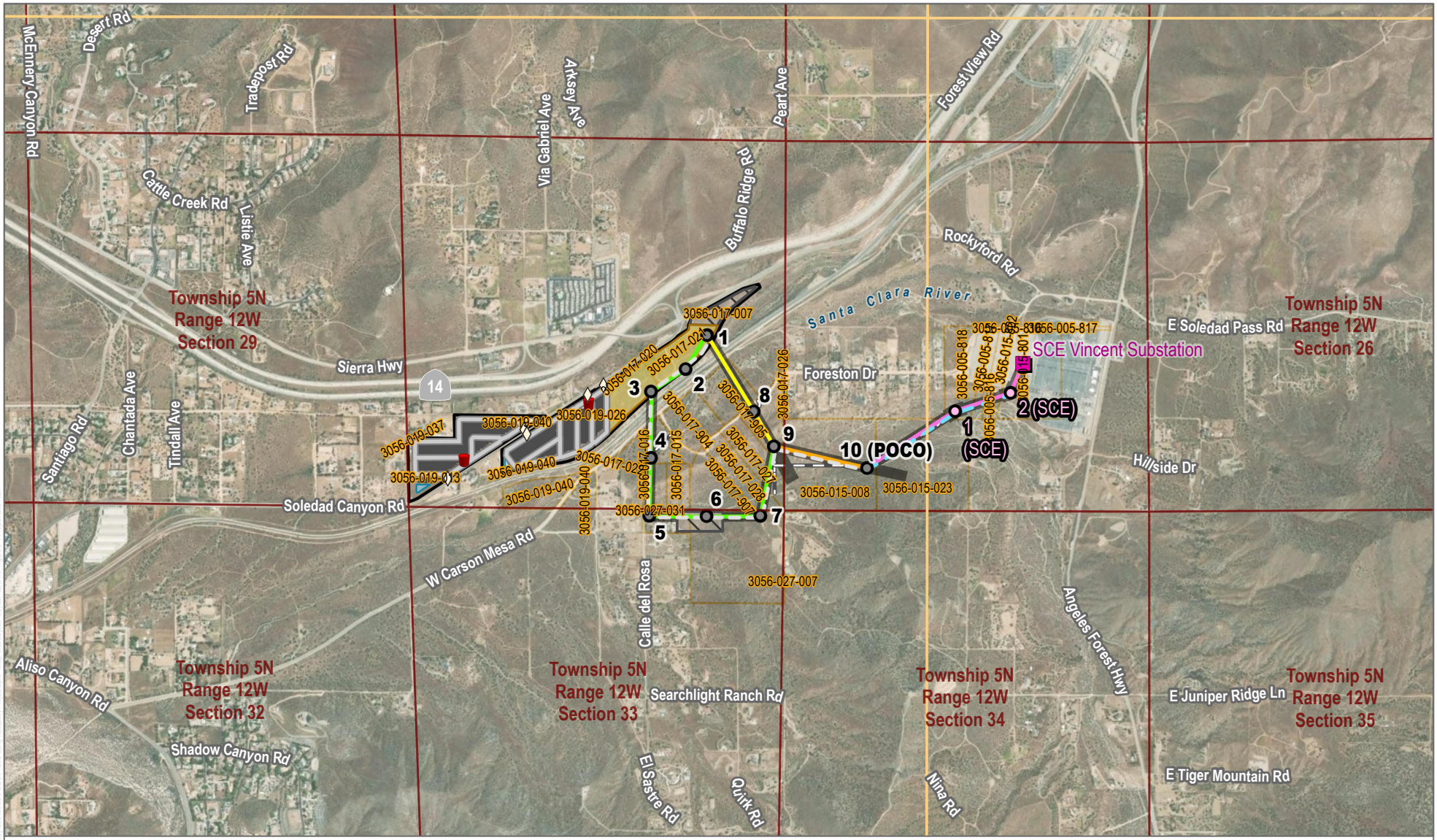
DUDEK

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

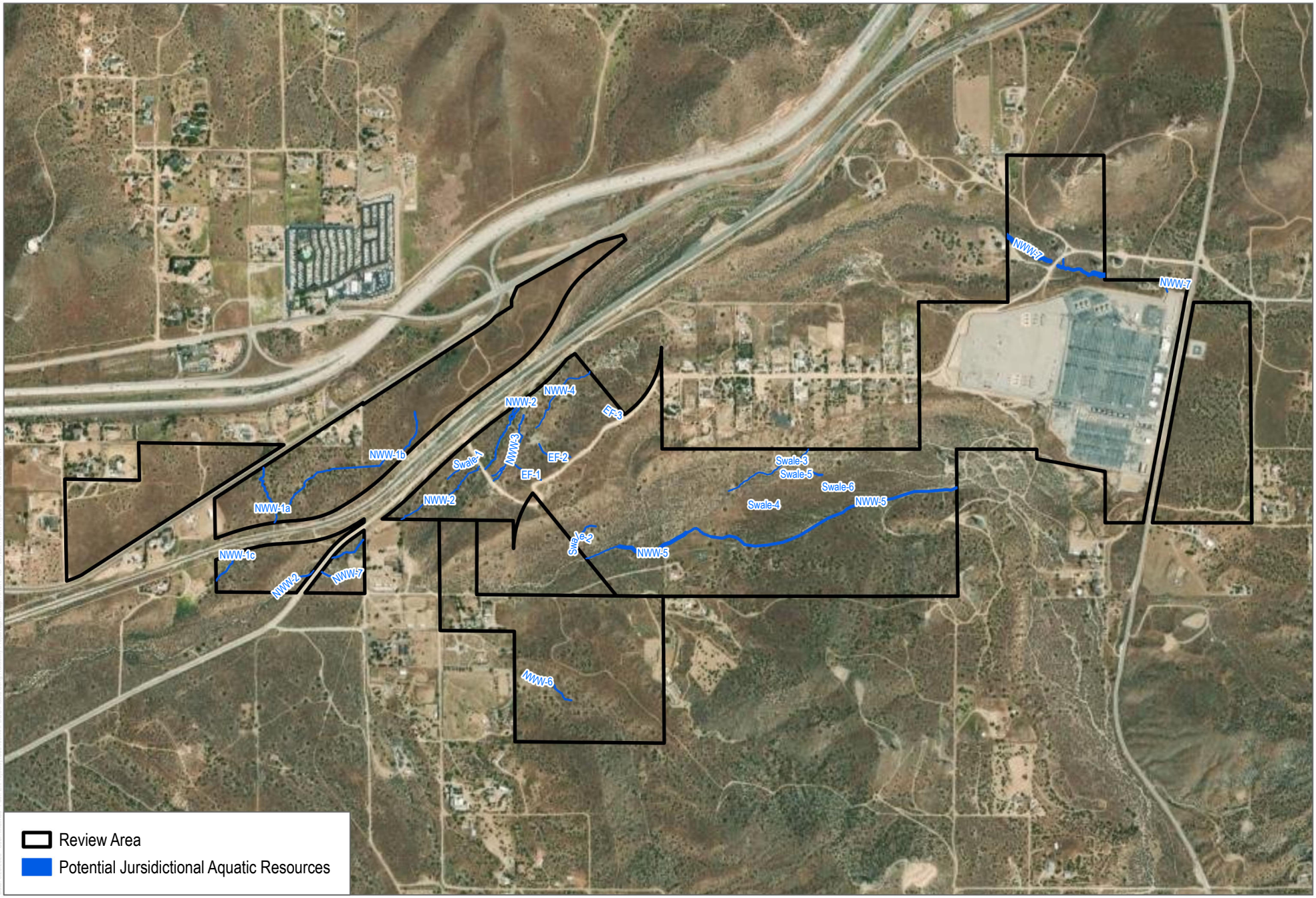
DUDEK

0 500 1,000 Feet

FIGURE 2

Project Site Plan

Prairie Song Reliability Project



SOURCE: World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 4

Potential Jurisdictional Aquatic Resources - RWQCB/CDFW

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 25 50 Feet

1 inch = 53 feet

Figure 4 - EF-1

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 30 60 Feet

1 inch = 66 feet

Figure 4 - EF-2

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

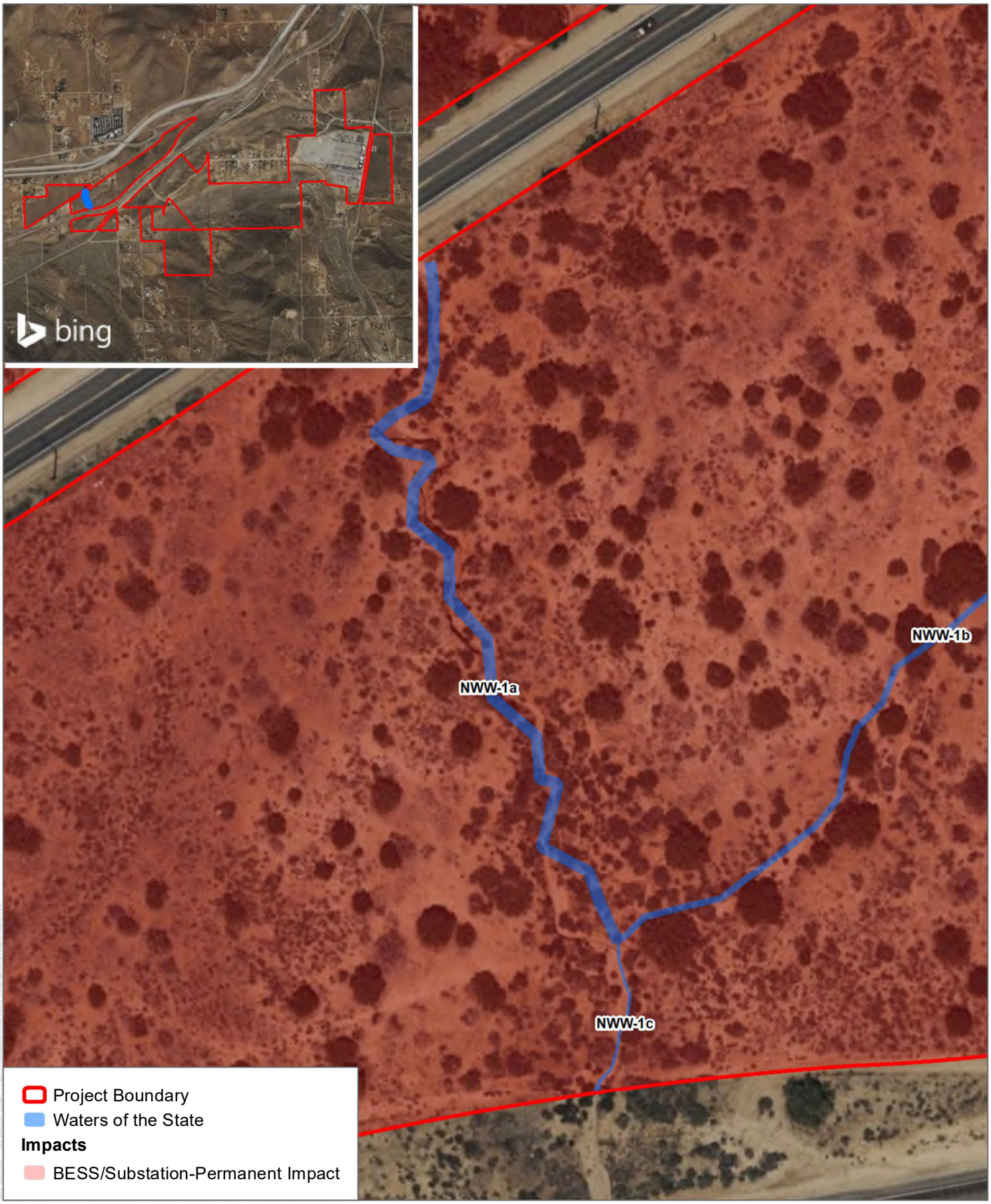
0 15 30 Feet

1 inch = 33 feet

Figure 4 - EF-3

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

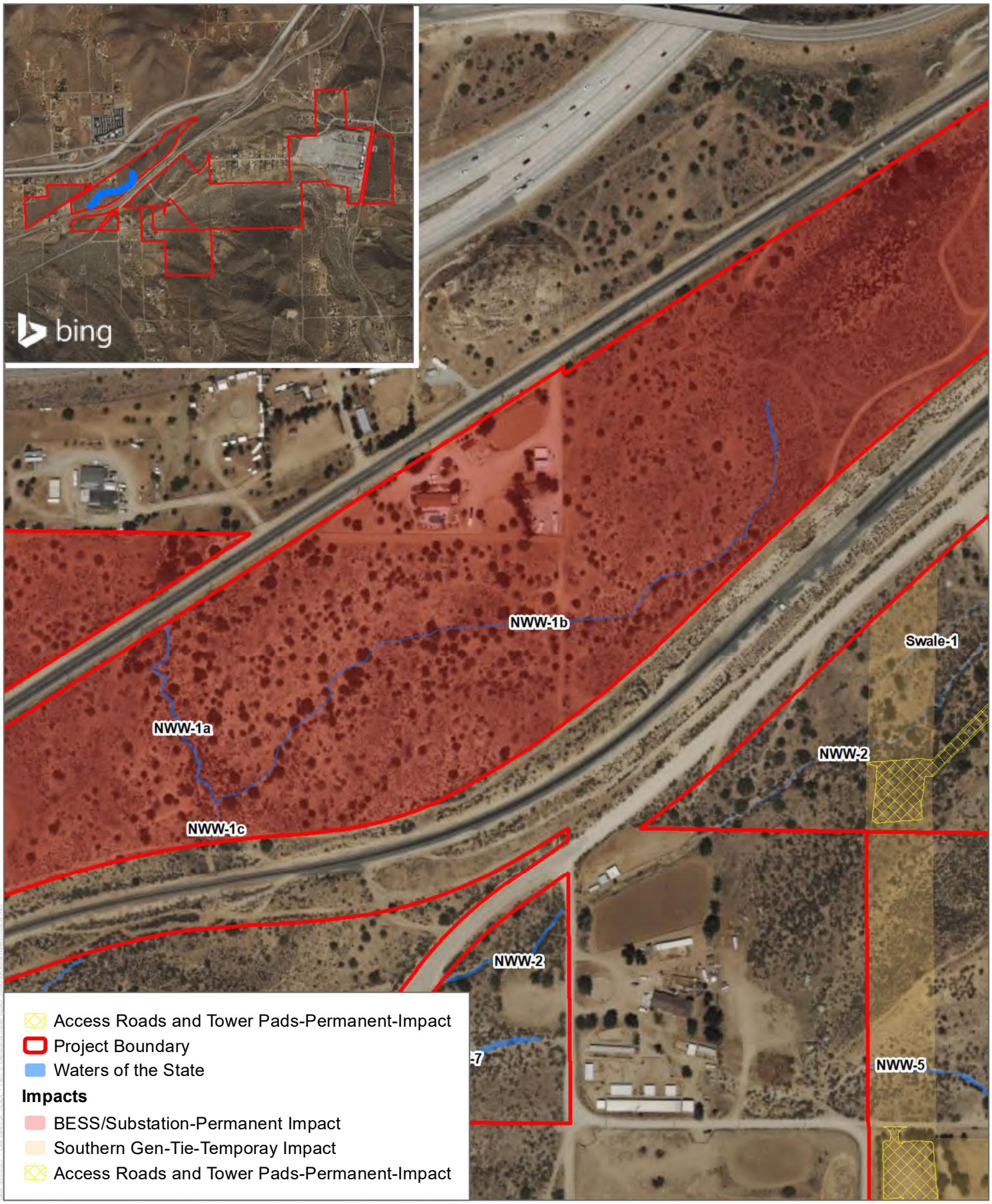
DUDEK

0 37.5 75 Feet 1 inch = 76 feet

Figure 4 - NWW-1a

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 145 290 Feet 1 inch = 289 feet

Figure 4 - NWW-1b

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 25 50 Feet

1 inch = 53 feet

Figure 4 - NWW-1c

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 5 10 Feet

1 inch = 17 feet

Figure 4 - NWW-1c

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 37.5 75 Feet 1 inch = 77 feet

Figure 4 - NWW-2

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

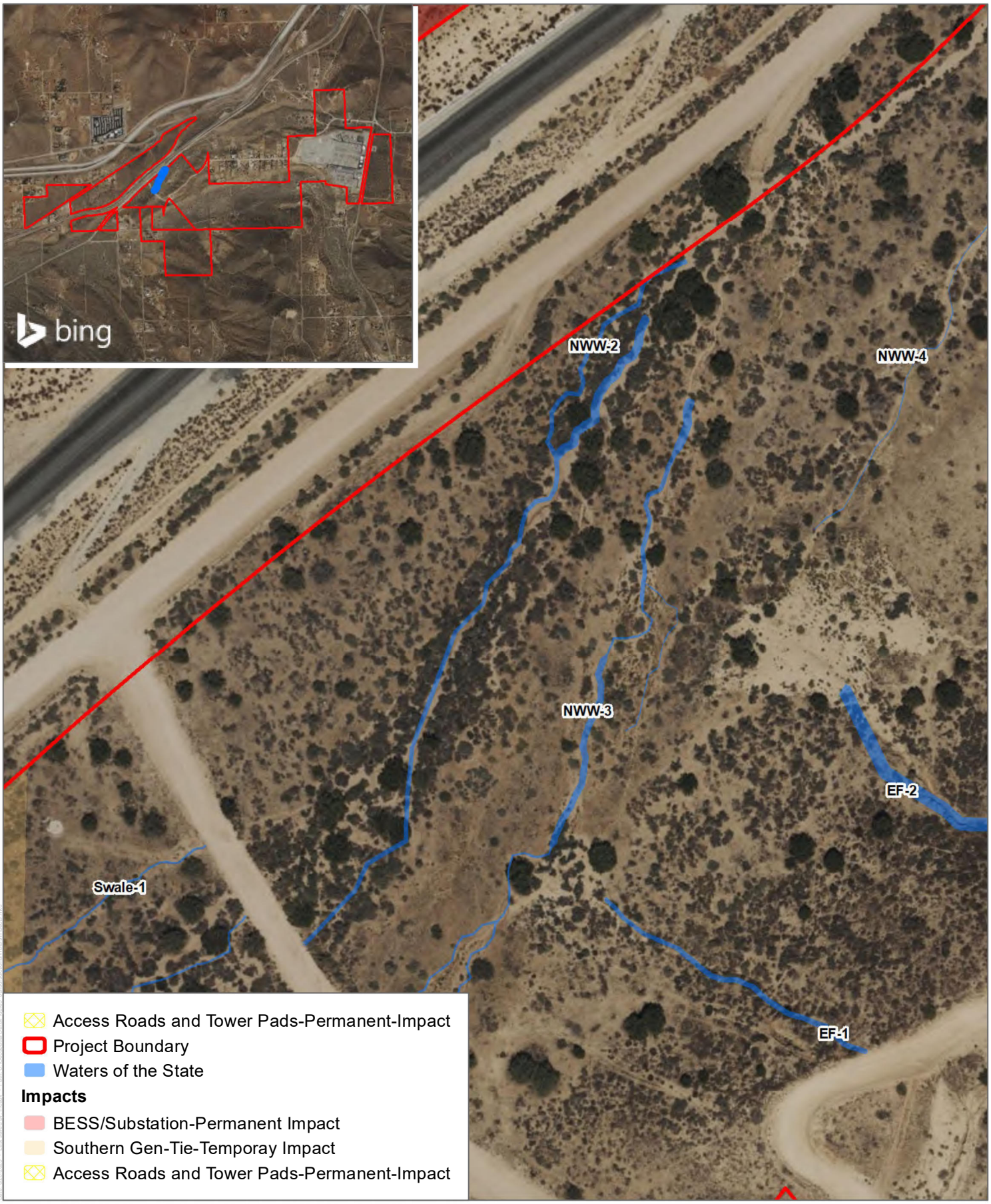
DUDEK

0 30 60 Feet 1 inch = 62 feet

Figure 4 - NWW-2

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

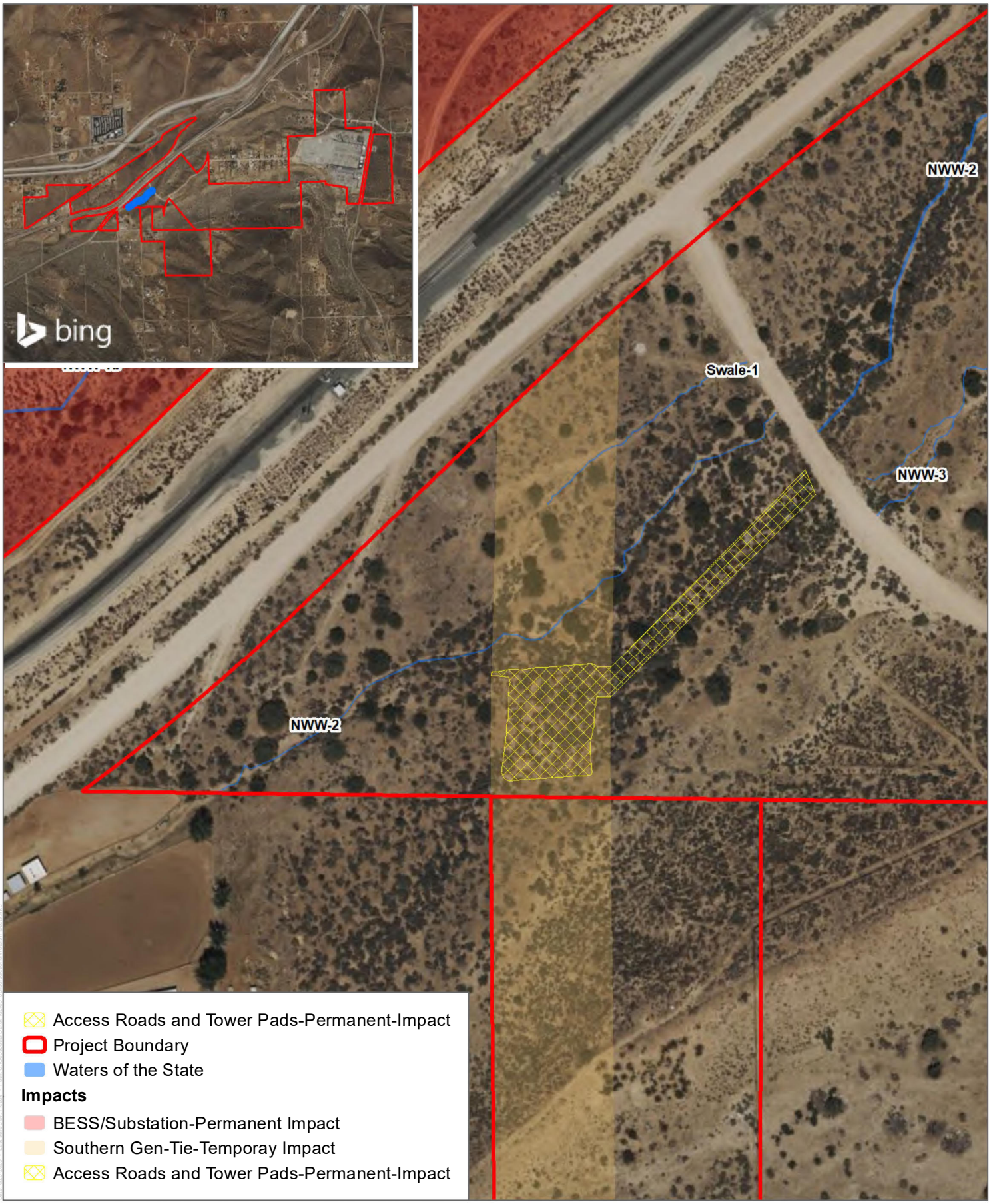
0 55 110 Feet

1 inch = 114 feet

Figure 4 - NWW-2

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 80 160 Feet 1 inch = 160 feet

Figure 4 - NWW-2

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

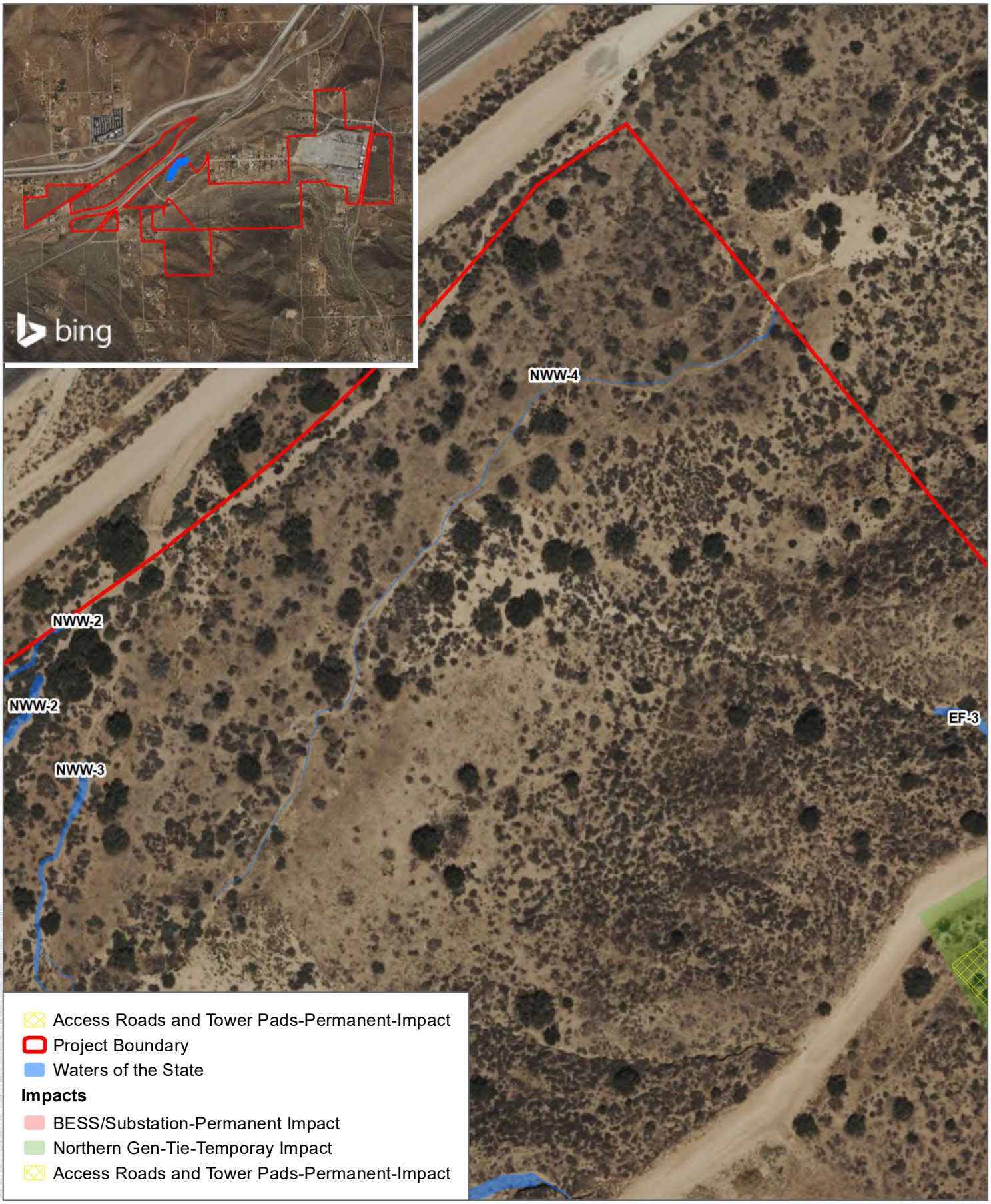
DUDEK

0 55 110 Feet 1 inch = 111 feet

Figure 4 - NWW-3

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

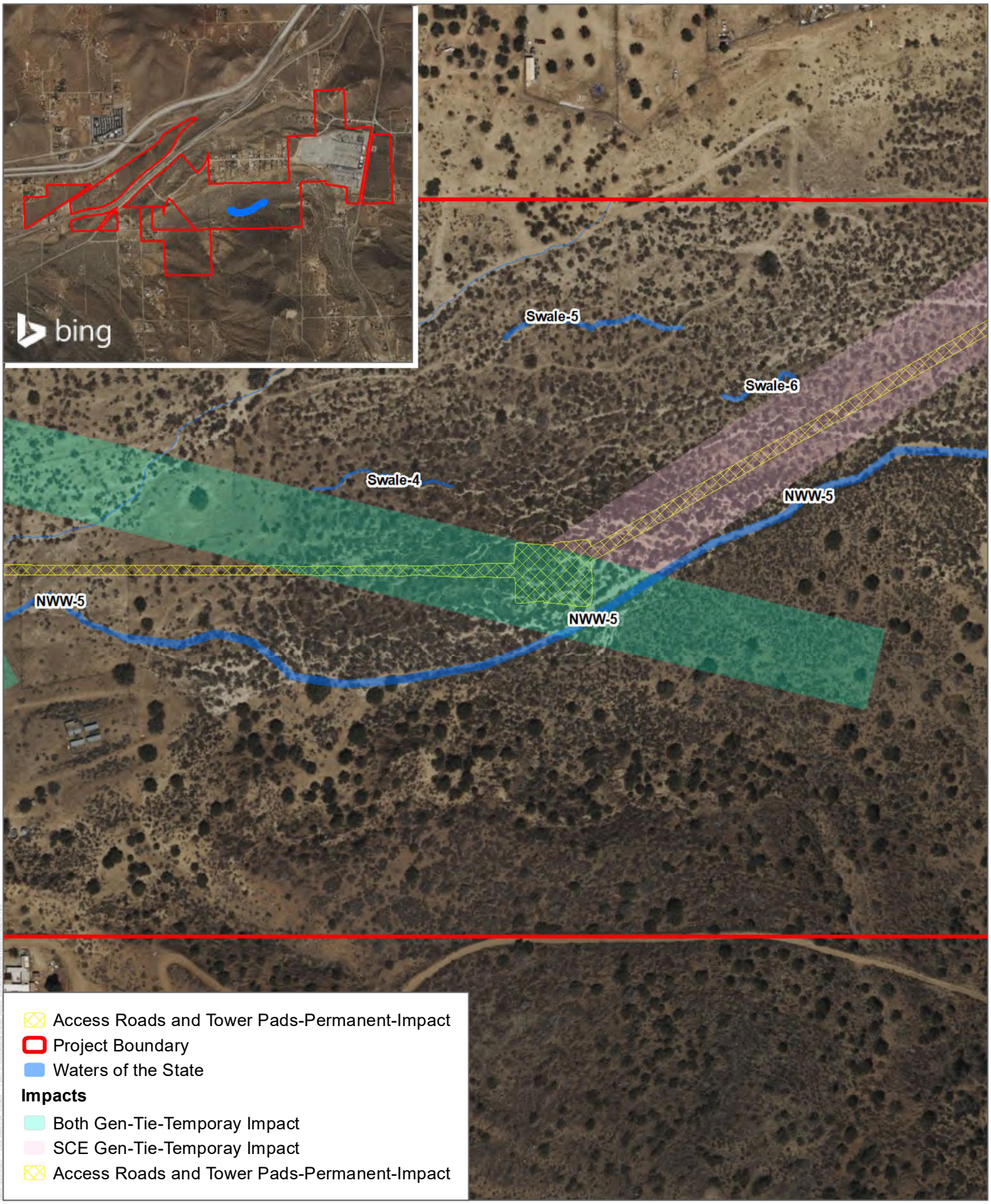
DUDEK

0 55 110 Feet 1 inch = 110 feet

Figure 4 - NWW-4

Jurisdictional Waters Impacts

Prairie Song Reliability Project



SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 115 230 Feet 1 inch = 229 feet

Figure 4 - NWW-5

Jurisdictional Waters Impacts

Prairie Song Reliability Project

SOURCE: Bing Maps 2021, Open Streets Map 2019.

DUDEK

0 37.5 75 Feet 1 inch = 76 feet

Figure 4 - NWW-5

Jurisdictional Waters Impacts

Prairie Song Reliability Project