DOCKETED	
Docket Number:	25-OPT-02
Project Title:	Prairie Song Reliability Project
TN #:	264472
Document Title:	App 3-2D Lake and Streambed Alteration Agreement 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 3.2D**

1602 Lake and Streambed Alteration Agreement Application 1 of 3 **DUDEK** 

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

June 26, 2025 13594

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

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

Region 5- Lake and Streambed Alteration Program:

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

## List of Attachments

The following attachments are provided in this application:

- Attachment A: Application Form
- Attachment B: Figures
- Attachment C: Project Description
- Attachment D:Aquatic Resources Delineation Report
- Attachment E: Copy of Application for a Clean Water Act Section 401 Water Quality Certification/Waste Discharge Requirements

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

Sincerely,

Michael Cady Senior Biologist

## **Attachment A**Application Form

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



Attribute	Answer
Does this project address any of the following: hazardous fuels reduction, fuel breaks, wildfire prevention, vegetation treatment or vegetation management for fire management? (select one)	□ Yes   ☑ No
Affected Body of Water	
River, Stream, or Lake Affected	Unnamed tributaries and isolated streams
Waterbody tributary	Santa Clara River
Will water be present during the proposed work period in the river, stream, or lake: (select one)	□ Yes   ☑ No
If "Yes", will the proposed project require work in the wetted portion of the channel?	☐ Yes ☐ No  If "Yes", attach a plan to divert water around the project site and dewater the work site that specifies the method, volume rate, and timing of the diversion on the Documents and Maps form.
Wild and Scenic Rivers Act (WSRA	
Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes   ☑ No   ☐ Unknown
Project Description, Term, and Im	pacts
Project Description and Details	
Is the 'Property Owner' the same person as the 'Applicant Proposing Project?	☑ Yes   □ No
If "No", outline the following contact information for the 'Property Owner':	N/A
Name Business Agency	



Attribute	Answer
Mailing Address Phone Number Email	
Describe the Project in Detail	The project proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Prairie Song Reliability Project (Project) located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead generation interconnection transmission line, and interconnection facilities within the existing Southern California Edison-owned and operated Vincent Substation.
	See Attachment C, Project Description, for full project objectives.
Describe Equipment and Machinery	Tractors, loaders, backhoes, excavator, rubber-tired dozer, rollers, air compressors, cranes, forklift, bore/drill rigs, trenchers, pumps, welders, rough terrain forklifts, skid steer loaders, concrete/industrial saws
Will part or all of this project be funded with one of the following CDFW-managed grants? (select one)	☐ Fish Restoration Grant Program (FRGP) ☐ Cannabis Restoration Grant Program ☐ Prop 1 Grant ☐ Prop 68 Grant ☐ Greenhouse Gas Grant (GHG) ☐ Wildlife Conservation Board (WCB) Grant ☐ N/A
Water Rights(s), Water Diversion(s	s) & Reservoir(s)
Does the project have an associated water right(s)? (select one)	☐ Yes   ☑ No
If "Yes", how many project water rights are included in the project?	
Does the project include any water diversion(s)? (select one)	☐ Yes │ ☑ No
If "Yes", how many water diversions will be included in the project?	
Does the project include a reservoir(s)? (select one)	☐ Yes  No
If "Yes", how many reservoir(s) will be included in the project?	



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



Attribute	Answer
depending on rainfall, fish migration, wildlife breeding or nesting season, or other resource concerns. Specify the estimated number of days of actual work days for each seasonal work period.	
Impacts to River, Stream, or Lake	
Describe Impacts	<ul> <li>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.</li> <li>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.</li> </ul>
	See Attachment B Figure 4 for the Project's impact on jurisdictional waters.
Impacts to Special-Status Species	
Will there be any foreseeable impacts to any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site? (select one)	□ Yes   ☑ No
If "Yes", list each species and describe the habitat	
Source(s) Identify the source(s) of information (e.g., biological surveys, environmental documents, etc.) that support a "Yes" or "No" answer for the previous question.	The Biological Resources section of the Project's CEC "Opt-In" application contains the results of the biological studies conducted for the Project.
Impacts to Trees and Vegetation	
Will the project affect any trees or vegetation?	⊠ Yes   □ No



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



Attribute	Answer
completed for the project? (select one) If "Yes", attach the MMRP in the Documents and Map section. If "No", explain why the MMRP has not been completed.	The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205). CEC will serve as lead agency and initiate CEQA once the application is deemed complete.
Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4? (select one)  If "Yes", attach a copy of the CEQA filing fee receipt in the Documents and Map section.  If "No", explain why the CEQA filing	☐ Yes ☐ No  The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205). CEC will serve as lead agency and initiate CEQA once the application is deemed complete.
fee hasn't been paid.  If the project described in this notification is not the "whole project", or action pursuant to CEQA, briefly describe the entire project. If the project described in the notification is the entire project, insert the following statement in this box: "The project described in the notification is the entire project."	The project described in the notification is the entire project.
National Environmental Policy Act	(NEPA)
Has a draft or final document been prepared for the project pursuant to the National Environmental Policy Act (NEPA)? (select one)	☐ Yes   ☑ No
If "Yes", outline the type of environmental document. Include a copy of the document in the Documents and Map section.	☐ Categorical Exclusion ☐ Environmental Assessment (EA) ☐ Finding of No Significant Impact (FONSI) ☐ Environmental Impact Statement (EIS)



Attribute	Answer
Measures to Protect Fish, Wildlife	e, and Plant Resources
Sediment/Erosion Control	The Project's grading plans will include details on the location and type of BMPs necessary to reduce the potential for Project-induced erosion and scour, including temporary BMPs to be implemented during construction (per the statewide Construction General Permit), and permanent BMPs to be installed and maintained (per the County BMP Design Manual). The exact location and type of temporary BMPs to be installed during construction depend on site-specific conditions, construction schedule, and proposed activities, all of which are outlined in the construction SWPPP that will be prepared for the Project. Typical temporary BMPs used for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sand bags, construction road stabilization, and stabilized construction entrances. As the Project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP ensure that site-specific conditions are taken into consideration when developing construction SWPPPs, that personnel developing and implementing construction SWPPPs are qualified, and that BMPs are adequately monitored and maintained.
Avoidance/Minimization Measures	During Construction: Potential temporary indirect impacts to the drainages in the project site and downstream waters could result from construction activities and will include potential impacts from the generation of fugitive dust and the potential introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration and transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/ jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats. However, during construction, erosion-control measures will be implemented as part of the storm water pollution prevention plan (SWPPP) for the Project. Because the entirety of the Project development footprint will be graded at one time but construction will occur over time in phases, the erosion measures will be maintained until all graded areas are constructed/landscaped. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate the implementation of best management practices to reduce or eliminate construction-related pollutants in the runoff, including sediment, for all exposed soils.  During Operation: Once constructed, the proposed BESS facility will result in an increase



Attribute	Answer
	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.
Mitigation/Compensation Measures	Temporary Impact Restoration: The temporary impacts to streams would be restored. Prior to ground disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area, and short-joint beavertail transplant location, and will outline detailed performance standards and monitoring requirements for each; following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the CEC prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 32 acres within the Conservation Area that includes 0.19 acres of ephemeral streams. A minimum of 70 California juniper will be planted. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to:
	Identification of proposed plant materials
	Signage in the habitat restoration area
	Schedule for habitat restoration/enhancement work
	<ul> <li>Use of pesticides and elimination of non-native vegetation</li> </ul>
	Habitat monitoring and reporting
	Performance standards
	<b>Preservation of Streams:</b> Mitigation for the Project requires the establishment of a conservation area that will preserve up to 0.97 acres of unimpacted streams in the parcels associated with the gen-tie routes.
	No Net Loss: Mitigation for up to approximately 1.77 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the CEC) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies approval of the mitigation bank, and prior to the issuance of the grading permit.



Attribute	Answer			
	A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.			
Prior Notifications, Orders, and Pe	ermits			
Prior Notifications and/or Agreem	nents			
Identify any notification previously submitted to, or Lake or Streambed Alteration Agreement previously issued by, CDFW for the project described in this notification. Include a copy of the previously submitted notification and/or agreement in the Documents and Maps form.  If applicable, list the following: Name of Applicant: Notification Number:	Not Applicable			
Date: Prior Orders, Notice, and/or Viola	tions			
If this notification is being submitted in response to a court or administrative order or notice, or a notice of violation issued by CDFW, complete this section for each order, notice, or violation. Include a copy of each order, notice, or violation in the Document and Maps form.  If applicable, list the following: Person who Directed you to Submit: Agency that Directed you to Submit: Describe Circumstances:	Not Applicable  Not Applicable			



Attribute	Answer				
Local, State, and/or Federal Perm	Local, State, and/or Federal Permits				
List any local, state, and/or federal permits required for the project and mark whether applied or issued. Include a copy of each permit that has been issued in the Documents and Maps form. You are responsible for obtaining all necessary permits and authorizations from CDFW and other agencies before beginning any project described in the notification.	ę y				
If applicable, list the following: Permit Name: Permit Type:					
If the permit was applied for or					
issued: Date issued/applied:					
Documents and Maps					
Maps/Photos					
Project Site Map	See Attachment B, Figure 1				
Project Aerial View Map	See Attachment B, Figure 4				
Project Site Photo(s)	See Attachment D, Photo E				
Studies and Mapping					
Has a biological study been completed for the project site? (select one)  If "Yes", include a copy of the document in the Documents and					
Map section.					
Has one or more technical studies (e.g., engineering, hydrologic,					



Attribute	Answer
geologic, or geomorphological) been completed for the project for project site? (select one) If "Yes", include a copy of the documents in the Documents and Map section.  Have fish or wildlife resources or waters of the state been mapped or delineated on the project site? (select one)	The appendices of the Project's CEC "Opt-In" application contains the engineering, hydrologic, geologic, or geomorphological studies for the Project.   Yes   \_ No  See Attachment D
If "Yes", include a copy of the document in the Documents and Map section.	
Additional Documents and Maps	
Upload Attachments, Documents, Maps, etc.	See Attachments B-D
Fees Schedule	
Notification Fees	
Project Name	Prairie Song Reliability Project
Project Cost Range	Regular Term:
Actual Project Cost	TBD
Payment Information	
Payment Method	☐ Check/Money Order ☐ Credit Card  If check/money order, outline the following information:  Name of the Bank/Institution:



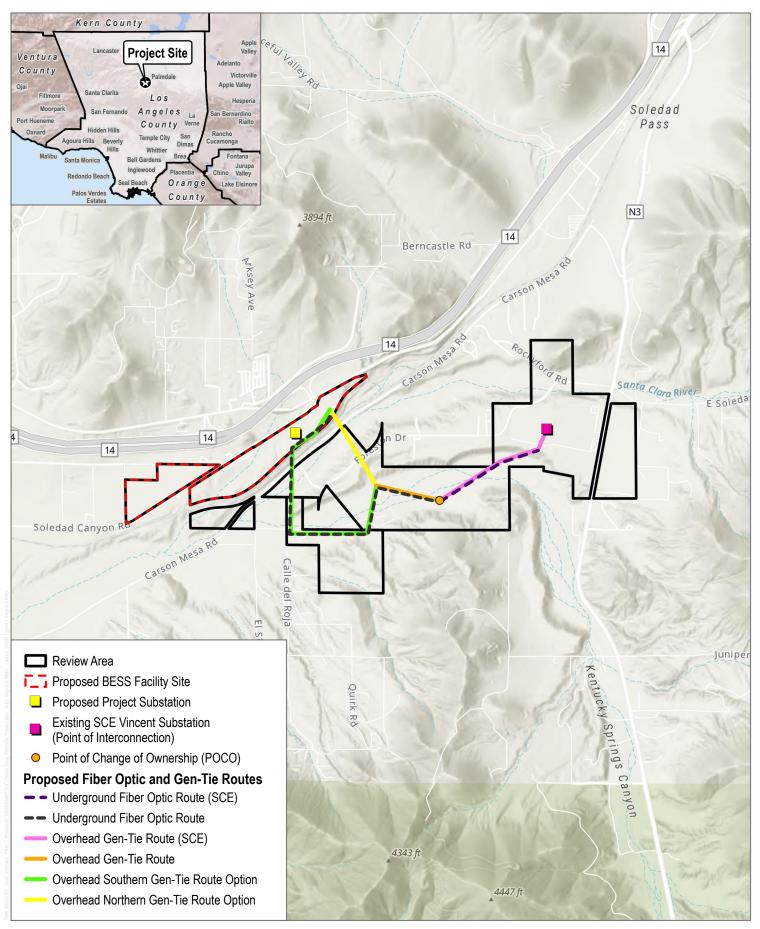
Attribute	Answer			
	Check/Money Order #:			
	If credit card, CDFW's online internet sales system will provide a document number after completing the transaction.  Outline the document number:			
Acknowledgment and Signature				
Site Inspection				
First Contact this Person to Schedule Site Visit	Garrett Lehman, Director (888) 287-9058			
Outline method of contact, contact name and information	glehman@covalinfra.com			
Electronic Signature				

Carret 2h

Application to be electronically signed by the Applicant or Designated Representative.



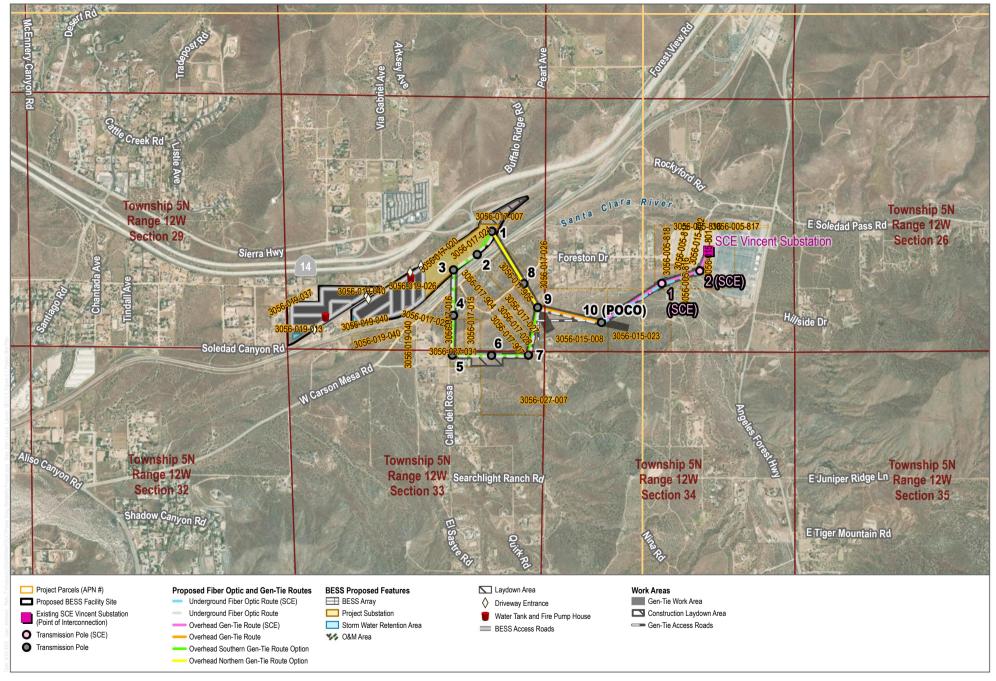
## **Attachment B**Figures



SOURCE: World Topographic

**DUDEK** 

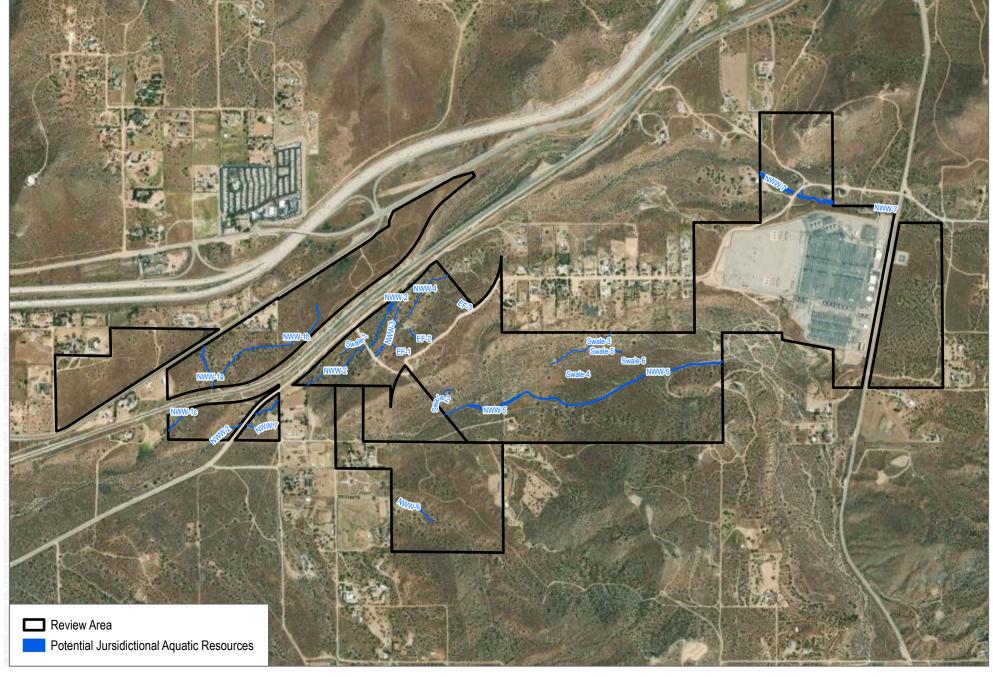
FIGURE 1 Regional Map



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







SOURCE: World Imagery

FIGURE 4

Potential Jurisdictional Aquatic Resources - RWQCB/CDFW



DUDEK &

Figure 4 - EF-1 Jurisdictional Waters Impacts



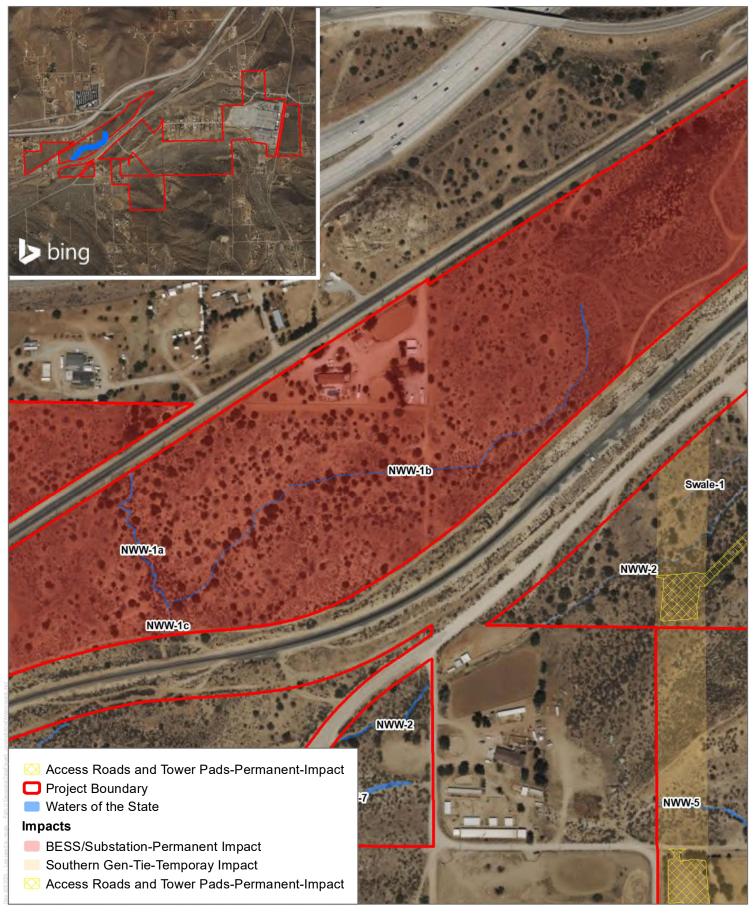
Figure 4 - EF-2 Jurisdictional Waters Impacts



Figure 4 - EF-3 **Jurisdictional Waters Impacts** 



Figure 4 - NWW-1a Jurisdictional Waters Impacts



DUDEK &

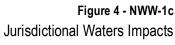
Figure 4 - NWW-1b Jurisdictional Waters Impacts



DUDEK &

Figure 4 - NWW-1c Jurisdictional Waters Impacts





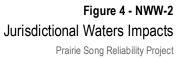


DUDEK &

Figure 4 - NWW-2 Jurisdictional Waters Impacts



DUDEK &

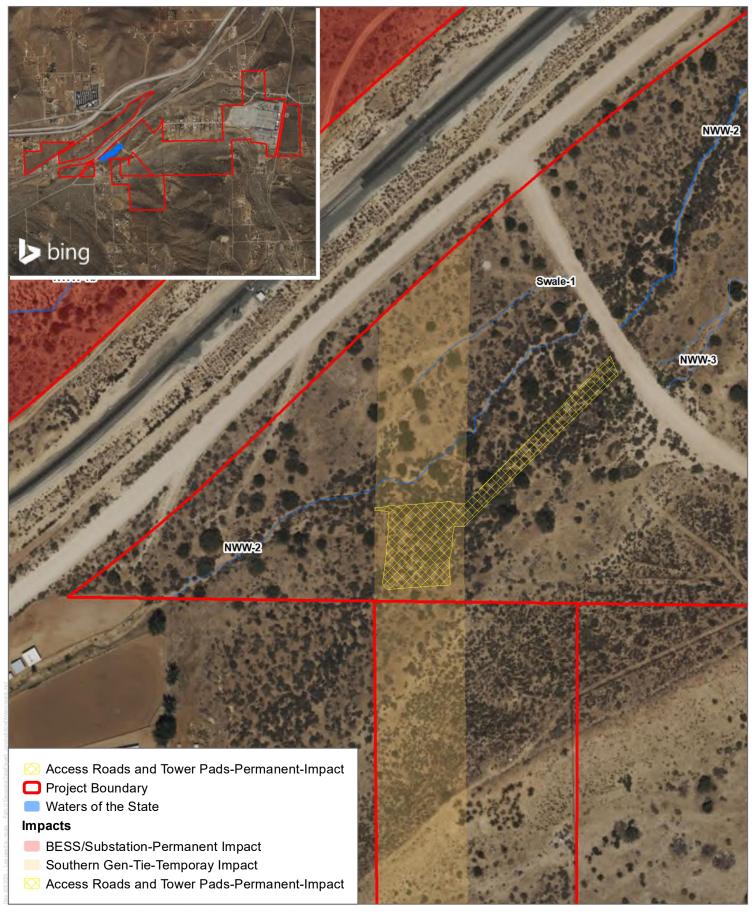




DUDEK & L

Figure 4 - NWW-2

Jurisdictional Waters Impacts



DUDEK & L

Figure 4 - NWW-2 Jurisdictional Waters Impacts



Figure 4 - NWW-3 Jurisdictional Waters Impacts



Figure 4 - NWW-4
Jurisdictional Waters Impacts

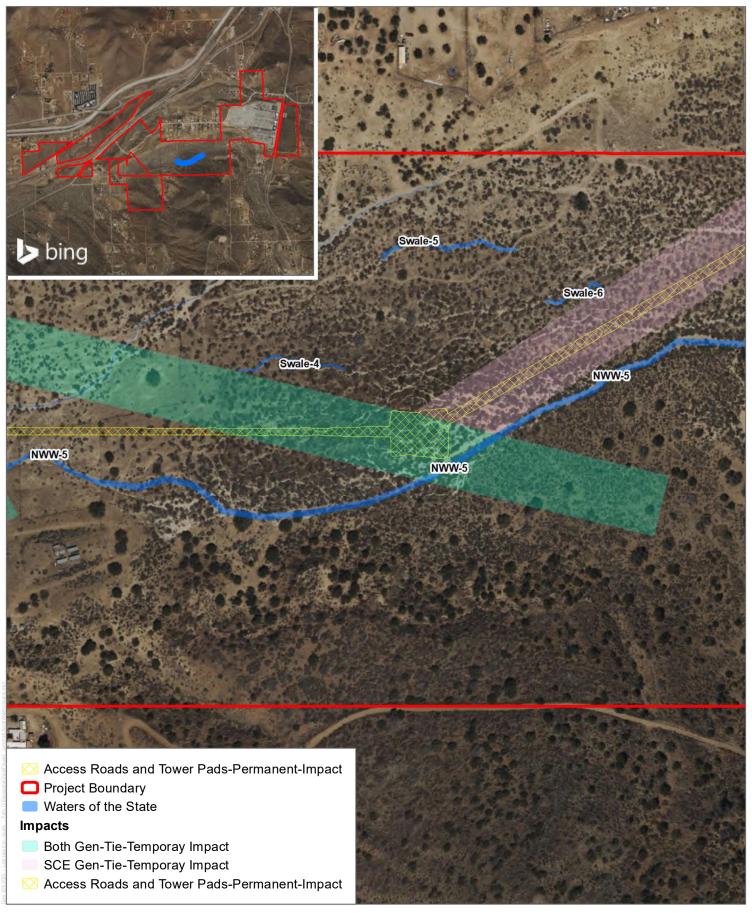


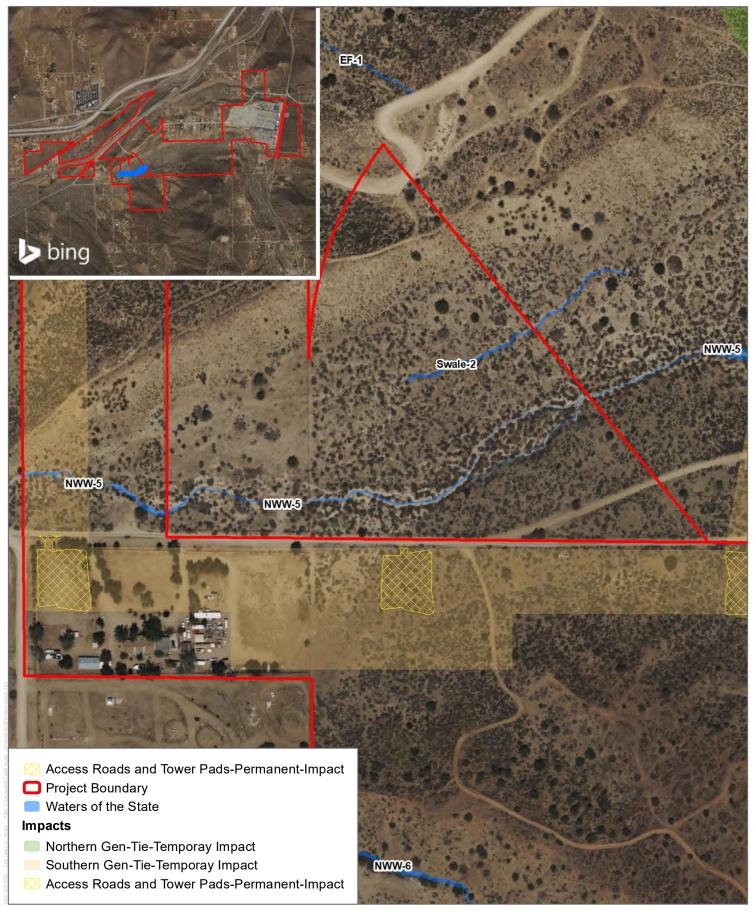
Figure 4 - NWW-5
Jurisdictional Waters Impacts



Figure 4 - NWW-5

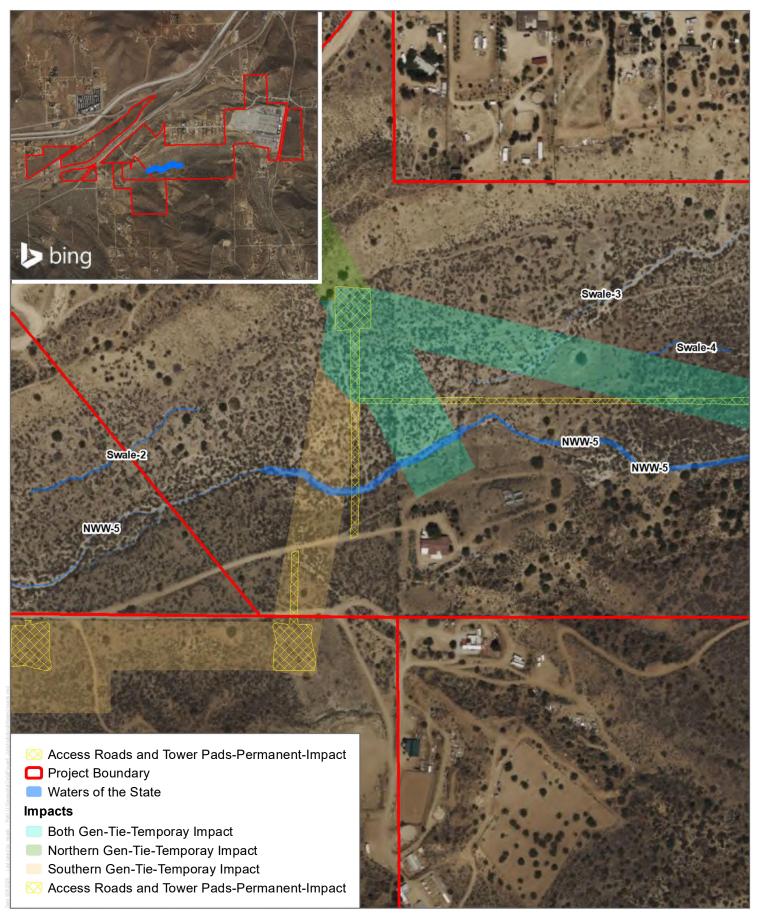
Jurisdictional Waters Impacts

Prairie Song Reliability Project



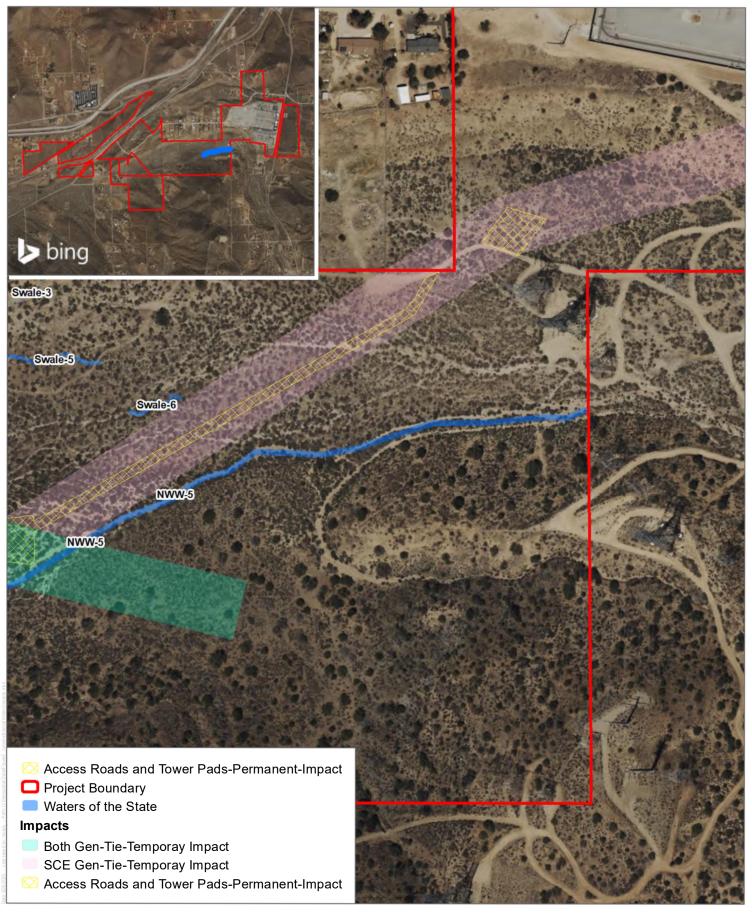
DUDEK &

Figure 4 - NWW-5
Jurisdictional Waters Impacts



DUDEK &

Figure 4 - NWW-5 Jurisdictional Waters Impacts



**DUDEK &** 

Figure 4 - NWW-5 Jurisdictional Waters Impacts

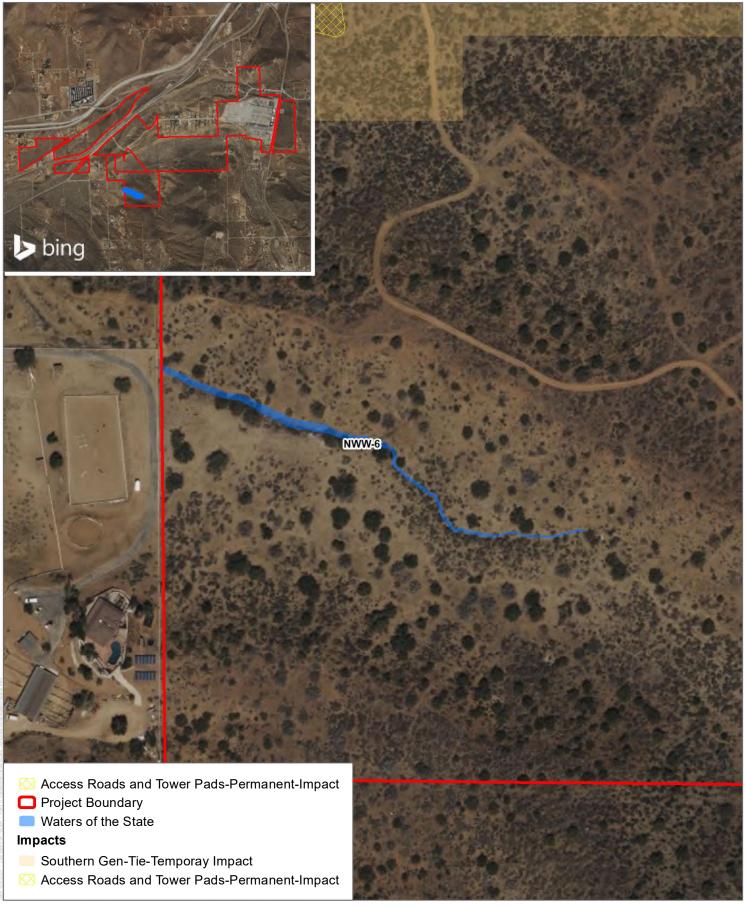


Figure 4 - NWW-6 Jurisdictional Waters Impacts



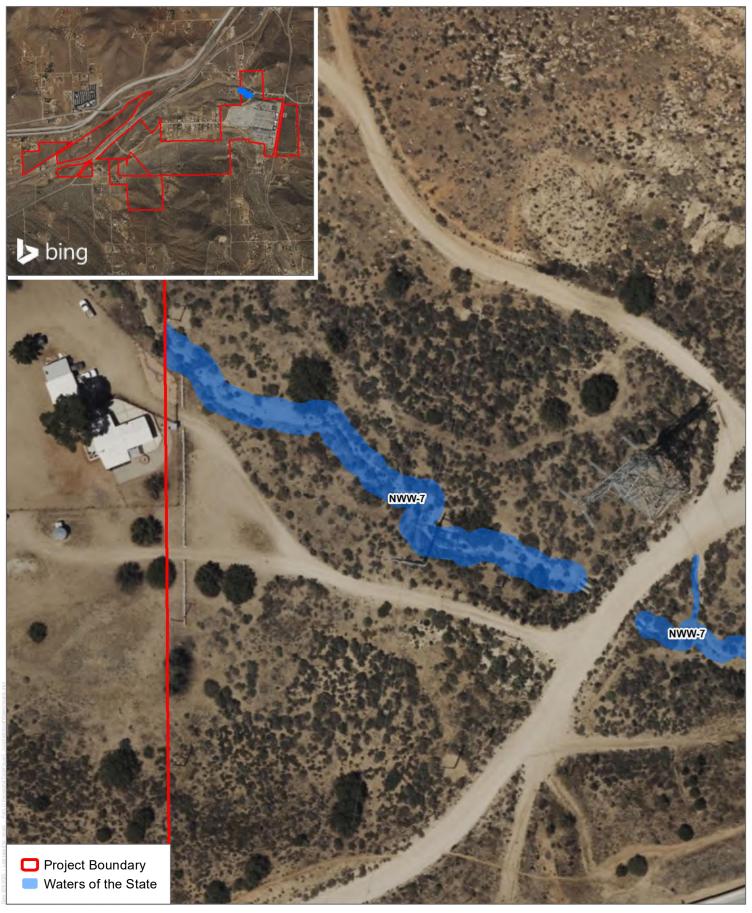
DUDEK &

Figure 4 - NWW-7
Jurisdictional Waters Impacts



DUDEK &

Figure 4 - NWW-7
Jurisdictional Waters Impacts
Prairie Song Reliability Project



DUDEK &

Figure 4 - NWW-7
Jurisdictional Waters Impacts

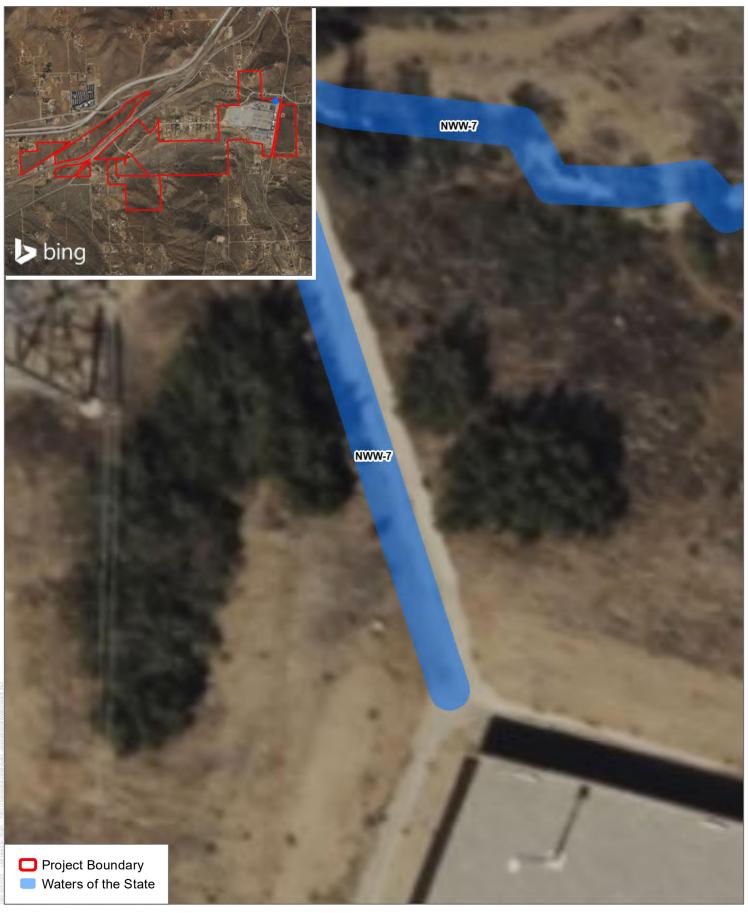


Figure 4 - NWW-7 Jurisdictional Waters Impacts Prairie Song Reliability Project



Figure 4 - NWW-7 **Jurisdictional Waters Impacts** 

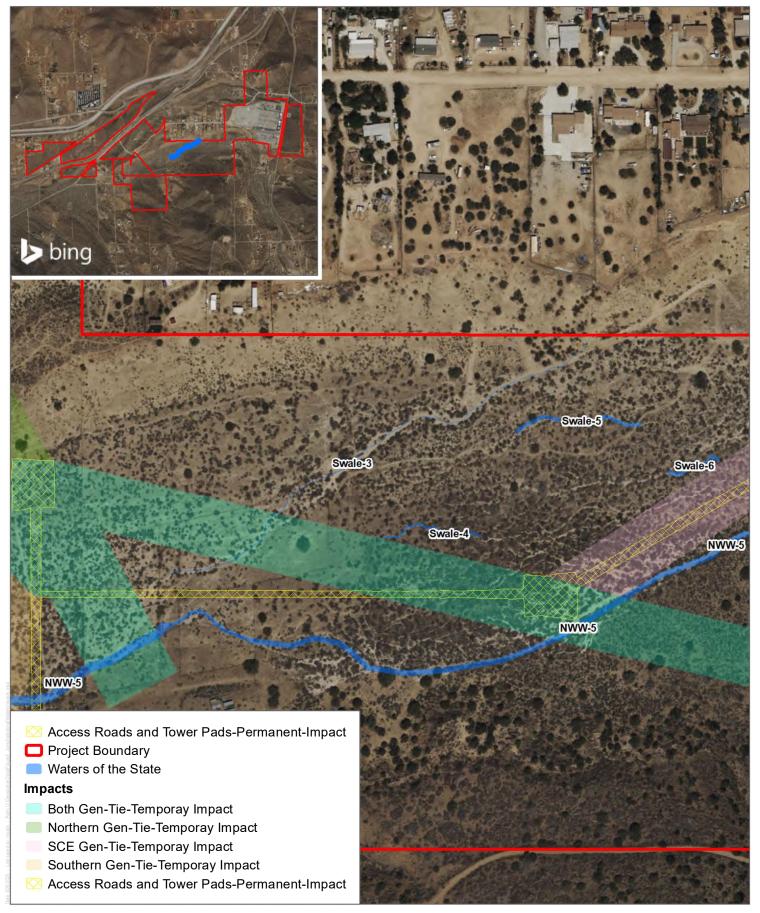


DUDEK & 0\_\_\_25

Figure 4 - Swale-1 Jurisdictional Waters Impacts



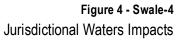
Figure 4 - Swale-2 **Jurisdictional Waters Impacts** 



DUDEK & L

Figure 4 - Swale-3 Jurisdictional Waters Impacts





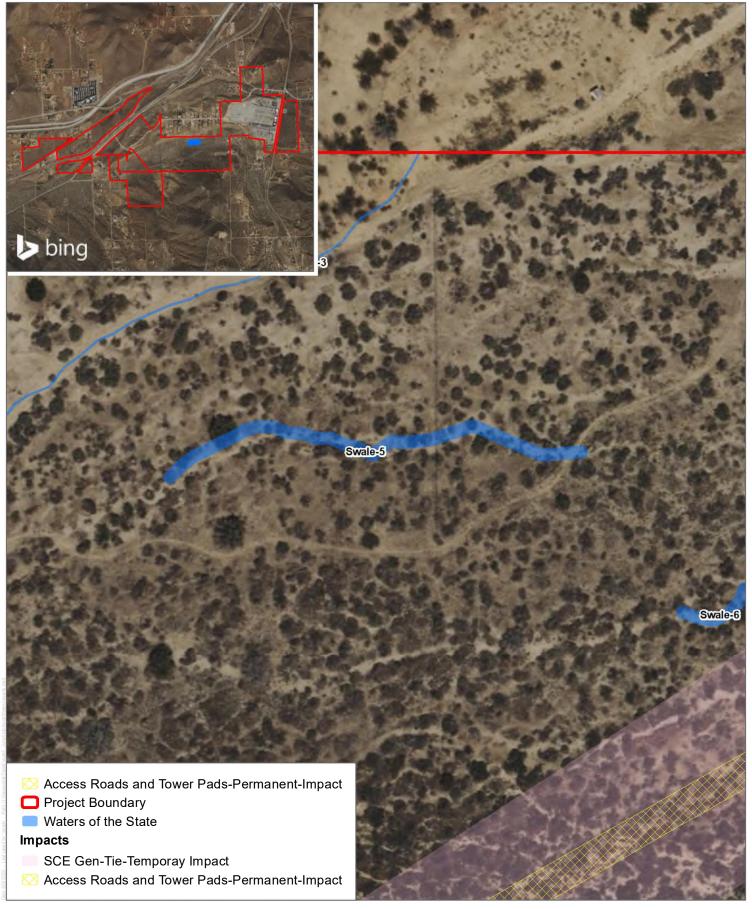


Figure 4 - Swale-5 Jurisdictional Waters Impacts



Figure 4 - Swale-6 Jurisdictional Waters Impacts

# **Attachment C**Project Description

# **Project Description**

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

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

The Project will be remotely operated and monitored year-round as well as supported by 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, 0&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:

**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
Othe	er* 4.7 acres
Tota	al+ 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.

<sup>\*</sup> 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.

#### 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.