DOCKETED	
Docket Number:	24-OPT-04
Project Title:	Potentia-Viridi Battery Energy Storage System
TN #:	261452
Document Title:	DR Response 3 - Attachment 8, Agency Communications
Description:	This document provides agency communications related to biological resources as requested by the CEC
Filer:	Ronelle Candia
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	1/29/2025 8:11:11 PM
Docketed Date:	1/30/2025

Attachment 8

Agency Communications

Agency Communication Summary

March 6, 2024: Michelle Tovar of Stantec reached out to Ryan Olah (USFWS Coast Bay Division Supervisor) to ask for an informal meeting to be set to discuss the proposed project. A meeting date was set for March 21st.

March 21, 2024: Michelle Tovar, Luke Shillington (consultant for Capstone), Lauren McLeod of Capstone (via telephone), and Ryan Olah met at the USFWS cottage way office in Sacramento. Luke and Michelle presented the project overview and the species identified. Coordination with the USACE was also discussed and intent to go through a section 7 process and that a Biological Assessment would be prepared for USFWS review.

September 6, 2024: Matthew Di Loreto (USACE Regulatory Project Manager, CA Delta Section) submitted the BA to USFWS and initiated consultation.

September 10, 2024: Michelle Tovar forwarded the consultation request to Ryan Olah to ask for staff biologist assignment.

September 16, 2024: Ryan Olah responded that Jason Hanni would take lead from the side of the USFWS and he was reviewing.

October 7, 2024: Jason Hanni sent over questions for clarification on the BA to the USACE and the applicant and consultant team.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

September 6, 2024

Regulatory Division (SPK-2024-00486)

Mr. Michael Fris
Acting Field Supervisor
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, California 95825-1888
SFWO_mail@fws.gov

Dear Mr. Fris:

I am writing to request initiation of formal consultation under Section 7 of the Endangered Species Act for a Department of the Army permit application for the Potentia-Viridi Battery Energy Storage System project. The project is proposed by Levy Alameda, LLC, and is located at 17257 Patterson Pass Road, Latitude 37.7121°, Longitude -121.57336°, Alameda County, California.

Based on available information, we have determined that the action may affect and is likely to adversely affect the Federally-listed California red-legged frog (*Rana draytonii*) and its critical habitat. We have also determined that the action may affect and is not likely to adversely affect the Federally-listed California tiger salamander (*Ambystoma californiense*) and San Joaquin Kit Fox (*Vulpes macrotis mutica*) and no effect to their critical habitat. A copy of the applicant's June 17, 2024 report titled *Potentia-Viridi Battery Energy Storage System Project Biological Assessment* prepared by Stantec Consulting Services, Inc. is enclosed. If new information becomes available indicating that other listed species or critical habitat may be affected, we will follow the procedures under 50 C.F.R. 402.16, Reinitiation of Consultation.

As defined in 50 C.F.R. 402.02, formal consultation commences with this written request for consultation. The following information is provided to your office to initiate consultation:

1. A description of the proposed action: The applicant proposes to construct, operate, and eventually repower or decommission the 400-megawatt (MW) Potentia-Viridi Battery Energy Storage System (Project) on approximately 85 acres in eastern Alameda County. The primary components of the Project include an up to 3,200 megawatt-hour (MWh) BESS facility, an operations and maintenance (O&M) building, a project substation, a 500 kilovolt (kV) overhead intertie transmission (gen-tie) line, and interconnection facilities within the Pacific Gas and Electric (PG&E) owned and operated Tesla Substation. A full overview of the project and its impacts, including timing, phases, and activities can be found starting in Section 3.0 of the enclosed report.

2. All areas to be affected directly or indirectly by the Federal Action: The project's Action Area includes direct effects to the entire 85-acre proposed project site, as well as a 50-foot buffer to include areas indirectly affected by the Federal action. A map showing the Action Area and proposed project components is included titled *Figure 3. Project Design Features*.

3. Information obtained by or in the possession of the Federal agency and any applicant on the listed species and designated critical habitat in the action area: Species accounts for California tiger salamander (CTS), California red-legged frog (CRLF), and San Joaquin kit fox (kit fox) can be found beginning on Section 6.0 of the enclosed report.

4. A description of the effects of the action and an analysis of any cumulative effects: Direct effects of the proposed action may include mortality or injury during ground-disturbing activities, utilization of construction equipment, grading, and other associated activities. Permanent loss of potential upland and dispersal habitat is also anticipated as a result of the project for both CTS and CRLF.

Direct and indirect effects to CTS, CRLF, and the kit fox may include impacts from increased human activity and construction noise and potential water quality impacts from construction activities during the project. A comprehensive list of potential effects can be found starting on Section 7.0 of the enclosed report.

Cumulative effects of the project are minimal as there are no reasonably foreseeable future actions in the action area that would not require a federal permit.

5. Relevant information provided by the applicant: The applicant has provided the enclosed *Potentia-Viridi Battery Energy Storage System Project Biological Assessment* prepared by Stantec Consulting Services, Inc. dated June 17, 2024.

6. Any other relevant available information on the effects of the proposed action: See item 5.

This constitutes the best scientific and commercial data available. If you need additional information, or determine conditioning the permit or modifying the project would preclude the need for formal consultation, please contact us immediately. You may also contact the applicant or authorized agent to allow them the opportunity to provide information for consideration as prescribed by 50 C.F.R. 402.14(d). If you need additional data beyond that discussed above, the procedures of 50 C.F.R. 402.14(f) must be followed.

Formal consultation concludes within 90 days after it has been initiated, unless extended. If you believe an extension is warranted, this office must agree and then you must submit to the permit applicant before the close of the 90 days a written statement describing (1) the reasons why a longer period is required, (2) the information that is

required to complete the consultation and (3) the estimated date on which the consultation will be completed. Within 45 days after concluding formal consultation, you will deliver a biological opinion to this office and the permit applicant.

Please refer to identification number SPK-2024-00486 in any correspondence concerning this project. If you have any questions, please contact me by email at *matthew.j.diloreto@usace.army.mil* and SPKRegulatoryMailbox@usace.army.mil, or telephone at (916) 557-7882.

Sincerely,

Matthew Di Loreto
Regulatory Project Manager
CA Delta Section

Enclosures

cc: (w/o encls)
Lauren McLeod, Levy Alameda, LLC, 155 Wellington Street West, Suite 2930, Toronto, CA M5V, *LMcLeod@capstoneinfra.com*
Cameron Johnson, Integral Consulting Inc., 433 Visitacion Ave, Brisbane, CA 94005, *cjohnson@integral-corp.com*

Appendix D – Biological Assessment

Potentia-Viridi Battery Energy Storage System Project

Biological Assessment

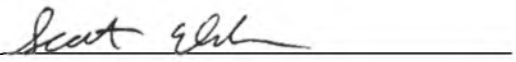
June 17, 2024

Prepared for:
Levy Alameda, LLC
c/o Capstone Infrastructure Corporation
155 Wellington Street West, Suite 2930
Toronto, Ontario M5V 3H1, Canada

Prepared by:
Stantec Consulting Services Inc.
2999 Oak Road, Suite 800
Walnut Creek, CA 94597

Sign-off Sheet

This document, entitled Potentia-Viridi Battery Energy Storage System Project, was prepared by Stantec for the Levy Alameda, LLC. Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment considering the scope, schedule, and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use that a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 

(signature)

Scott Elder, Associate Biologist, Stantec

Reviewed by 

(signature)

Jared Elia, Senior Biologist, Stantec

Approved by _____

(signature)

Lauren McLeod, Project Manager

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Executive Summary

This Biological Assessment (BA) was prepared for the proposed Potentia-Viridi Battery Energy Storage System (BESS) Project (Project). This BA describes the existing conditions, existing biological resources within the Project Action Area (AA), and assessment of Project impacts to federally listed species.

The primary purpose of the Project is 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. The Project will help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation from emissions free power sources and delivering it back to the grid when demand exceeds real-time generation supply. The Project displaces the need for additional fossil fuel based generating stations needed to serve peak demand periods when renewable sources may be inadequate or unavailable.

Three federally-listed species, California tiger salamander (*Ambystoma californiense*) which is listed as federally threatened, California red-legged frog (*Rana draytonii*) which is listed as federally threatened, and San Joaquin kit fox (*Vulpes macrotis mutica)* which is listed as federally endangered, were evaluated in this BA to determine if the Project would have adverse effects on the species, as they are either known or have potential to occur in the Project AA. A summary of Project effects on federally-listed species as described by habitat disturbance is provided below in Table ES-1.

Table ES-1. Impacts on Federally Listed Species

Resource	Direct Impacts	
	Permanent	Temporary
California tiger salamander	59.6	6.7
California red-legged frog	59.6	6.7
San Joaquin kit fox	59.6	6.7

Based on Project effects, the BA makes the following determinations regarding federally-listed species.

California Tiger Salamander

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and upland habitat for California tiger salamander. The Project will have temporary and permanent impacts to potential dispersal and upland habitat; however, there are no permanent or temporary impacts to aquatic breeding habitat. Therefore, the Project **may affect, likely to adversely affect California tiger salamander**. Implementation of avoidance and minimization measures described in Section 7.1.1.1 would reduce any direct and indirect effects on potential California tiger salamander dispersal and upland habitat. Additionally, the Applicant would compensate for any permanent dispersal and upland habitat loss as described in 7.1.1.2.

The Project does not occur within designated critical habitat for California tiger salamander; therefore, the Project will have **no effect** on critical habitat for this species.

California Red-legged Frog

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and upland habitat for California red-legged frog. The Project will have temporary and permanent impacts to potential dispersal and upland habitat; however, there are no permanent or temporary impacts to aquatic breeding habitat. Therefore, the Project **may affect, likely to adversely affect California red-legged frog**. Implementation of avoidance and minimization measures described in Section 7.1.1.1 would reduce any direct and indirect effects on potential California red-legged frog dispersal and upland habitat. Additionally, the Applicant would compensate for any permanent dispersal and upland habitat loss as described in 7.1.1.2.

The Project will have temporary and permanent impacts to designated critical habitat for California red-legged frog; therefore, the Project **may affect, likely to adversely affect California red-legged frog** critical habitat.

San Joaquin Kit Fox

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and migration habitat for San Joaquin kit fox. The Project will have temporary and permanent impacts to potential dispersal and migration habitat; however, these impacts are considered minimal as the AA is within the northern limits of their dispersal or migration boundary. There are no permanent or temporary impacts to potential breeding or denning habitat within the AA. Therefore, the Project **may affect, not likely to adversely affect San Joaquin kit fox**. Implementation of avoidance and minimization measures described under Section 7.1.2.1 would reduce any direct and indirect effects on potential San Joaquin kit fox dispersal and migration habitat. Additionally, the Applicant would compensate for any permanent dispersal and migration habitat loss as described in 7.1.2.2.

The Project does not occur within designated critical habitat for San Joaquin kit fox; therefore, the Project will have **no effect** on critical habitat for this species.

Cumulative Effects

Implementation of avoidance and minimization efforts and compensatory mitigation described in Chapter 7 would ensure that the Project's incremental effects on sensitive biological resources are not cumulatively considerable.

Avoidance, Minimization, and Compensation Measures

GEN - 01 Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and Avoidance and Minimization Measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.

GEN - 02 Environmental tailboard trainings will take place on an as needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of the covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.

GEN - 03 Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements, AMMs.

GEN - 04 The following will not be allowed at or near work sites for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).

GEN - 05 Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.

GEN - 06 Off - road vehicle travel will be minimized.

GEN - 07 Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land cover types, or during off road travel.

GEN - 08 Vehicles or equipment will not be refueled within 100 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

GEN - 09 Vehicles shall be washed only at approved areas. No washing of vehicles shall occur at job sites.

GEN - 10 To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed free straw.

GEN - 11 Pipes, culverts, and similar materials greater than four inches in diameter, will be stored so as to prevent covered wildlife species from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.

GEN - 12 Erosion control measures will be implemented to reduce sedimentation in wetland habitat occupied by covered animal and plant species when activities are the source of potential erosion problems. Plastic monofilament netting (erosion control matting) or similar material containing netting shall not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

GEN - 13 Stockpiling of material will occur such that direct effects to covered species are avoided. Stockpiling of material in riparian areas will occur outside of the top of bank, and preferably outside of the outer riparian dripline and will not exceed 30 days.

GEN - 14 Grading will be restricted to the minimum area necessary.

GEN - 15 Prior to ground disturbing activities in sensitive habitats, project construction boundaries and access areas will be flagged and temporarily fenced during construction to reduce the potential for vehicles and equipment to stray into adjacent habitats.

GEN - 16 Significant earth moving - activities will not be conducted in riparian areas within 24 hours of predicted storms or after major storms (defined as 1 - inch of rain or more).

GEN - 17 Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure no covered species are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.

<u>California Tiger Salamander and California Red-Legged Fog</u>

East Alameda County Conservation Strategy Avoidance and Minimization Measures:

AMPH-2. Habitat: Riparian habitat and grasslands within 2-miles of aquatic habitat

- A qualified biologist will conduct preconstruction surveys prior to activities define a time for the surveys (before groundbreaking). If individuals are found, work will not begin until they are moved out of the construction zone to a USFWS/CDFW approved relocation site.
- A Service‐approved biologist should be present for initial ground disturbing activities.
- If the work site is within the typical dispersal distance (contact USFWS/CDFW for latest research on this distance for species of interest) of potential breeding habitat, barrier fencing will be constructed around the worksite to prevent amphibians from entering the work area. Barrier fencing will be removed within 72 hours of completion of work.
- No monofilament plastic will be used for erosion control
- Construction personnel will inspect open trenches in the morning and evening for trapped amphibians
- A qualified biologist possessing a valid ESA Section 10(a)(1)(A) permit or Service approved under an active biological opinion, will be contracted to trap and to move amphibians to nearby suitable habitat if amphibians are found inside fenced area
- Work will be avoided within suitable habitat from October 15 (or the first measurable fall rain of 1” or greater, to May 1.

<u>San Joaquin Kit Fox</u>

East Alameda County Conservation Strategy Avoidance and Minimization Measures:

MAMM-1. Habitat: Grassland, generally with ground squirrel burrows.

- If potential dens are present, their disturbance and destruction will be avoided.
- If potential dens are located within the proposed work area and cannot be avoided during construction, qualified biologist will determine if the dens are occupied or were recently occupied using methodology coordinated with the USFWS and CDFW. If unoccupied, the qualified biologist will collapse these dens by hand in accordance with USFWS procedures (USFWS 2011).
- Exclusion zones will be implemented following USFWS procedures (U.S. Fish and Wildlife Service 1999) or the latest USFWS procedures available at the time. The radius of these zones will follow current standards or will be as follows: Potential Den 50 feet; Known Den 100 feet; Natal or Pupping Den—to be determined on a case by case basis in coordination with USFWS and CDFW.
- Pipes will be capped, and trenches will contain exit ramps to avoid direct mortality while construction areas is active.

As part of the Project, avoidance, minimization and compensation measures will be implemented prior to and during construction to avoid, minimize, and compensate for Project effects on CTS, CRLF and San Joaquin kit fox potential upland, dispersal and migration habitat within the AA. These measures are described in Chapter 7 of this BA.

Abbreviations

ºF	degrees Fahrenheit
AA	Action Area
AC	alternating current
Applicant	Levy Alameda LLC
BA	Biological Assessment
BESS	Battery Energy Storage System
BMP	best management practices
BMS	battery management system
C	candidate
cy	cubic yards
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
DC	direct current
DPS	Distinct Population Segment
EACCS	East Alameda County Conservation Strategy
ESA	Federal Endangered Species Act
ESRI	Environmental Systems Research Institute
FE	federally endangered
FT	federally threatened
gen-tie	intertie transmission
HVAC	heating, ventilation, and air conditioning
kV	kilovolt
LFP	lithium iron phosphate
LGIA	Large Generator Interconnection Agreement
MPT	main power transformer
MV	Medium voltage
MW	megawatt
MWh	megawatt-hour
NEMA	National Electrical Manufacturers Association
NWI	National Wetlands Inventory
O&M	operations and maintenance
PCE	primary constituent elements
PCS	Power Conversion Systems
PG&E	Pacific Gas and Electric
POCO	Point of Change of Ownership

POI	Point of Interconnect
Project	Potentia-Viridi Battery Energy Storage System
PT	proposed threatened
SCADA	Supervisory Control and Data Acquisition
Stantec	Stantec Consulting Services Inc.
UL	Underwriters Laboratories
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

The purpose of this Biological Assessment (BA) is to review the proposed Potentia-Viridi Battery Energy Storage System (BESS) Project (Project) in sufficient detail to determine if the Project may affect federally listed threatened or endangered species, or those proposed for such listing and their critical habitat. This BA was prepared in accordance with legal requirements found in Section 7 (a)(2) of the Federal Endangered Species Act (ESA) (Title 16, United States Code [U.S.C], Section 1536[c]). The Project will require federal permits from the U.S. Army Corps of Engineers (Corps), who will act as federal lead agency for the Project under Section 7 of the ESA.

Levy Alameda, LLC (Applicant), a wholly owned subsidiary of Obra Maestra Renewables, LLC, proposes to construct, operate, and eventually repower or decommission the 400 megawatt (MW) Potentia-Viridi Battery Energy Storage System (Project) on approximately 85 acres in eastern Alameda County. The primary components of the Project include an up to 3,200 megawatt-hour (MWh) BESS facility, an operations and maintenance (O&M) building, a project substation, a 500 kilovolt (kV) overhead intertie transmission (gen-tie) line, and interconnection facilities within the Pacific Gas and Electric (PG&E) owned and operated Tesla Substation.

The Project would draw electricity from the power grid to charge and store electrical energy and discharge back to the power grid when the stored energy is needed. The Project would provide several benefits to the power grid, including reducing the need to operate natural gas power plants to balance intermittent renewable generation and serving as an additional capacity resource that would enhance grid reliability.

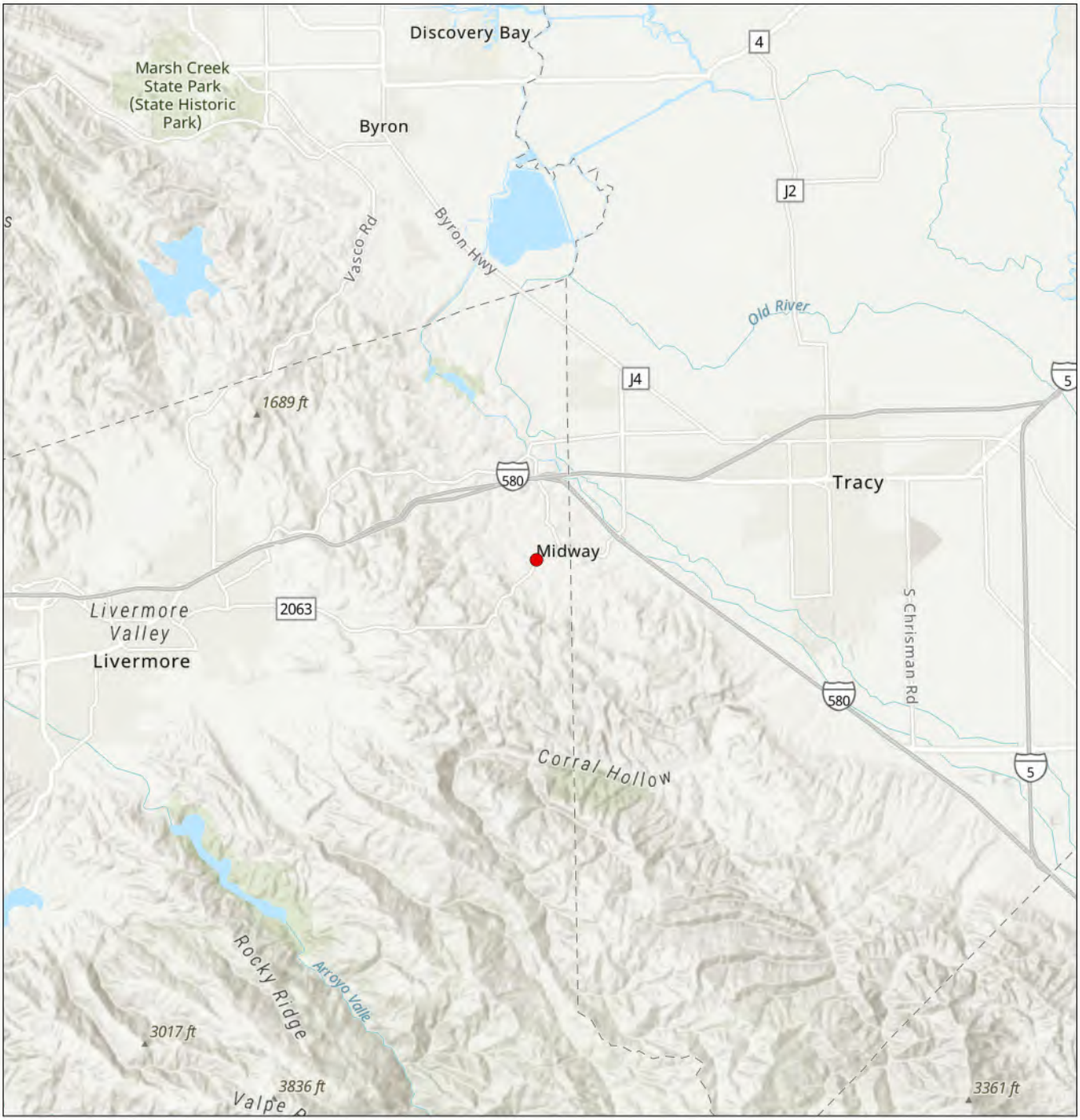
The Project would be remotely operated and monitored year-round and be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians would routinely inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

In preparation of this BA, Stantec Consulting Services Inc. (Stantec) relied mostly on the following sources of information pertaining to federally listed threatened and endangered species:

- A records search of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) to query recorded accounts of special-status species occurring within the *Midway, California* 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle and the eight surrounding quadrangles (CDFW 2024) (Appendix A);
- A records search of the California Native Plant Society's (CNPS) database for the *Midway, California* 7.5-minute USGS topographic quadrangle and eight surrounding quadrangles (CNPS 2024) (Appendix A);
- A species list of endangered, threatened, and candidate species that may occur in the Action Area (AA) (U.S. Fish and Wildlife Service [USFWS] 2024a) (Appendix A). Additionally, the USFWS online Critical Habitat Portal and CDFW Biogeographic Information and Observation System were accessed to identify any USFWS designated critical habitat units that may occur in the AA;
- *Potentia-Viridi Battery Energy Storage System Project Biological Technical Report* (Dudek 2024);

1.1 CONSULTATION TO DATE

On May 22, 2024, Stantec requested a species list from the USFWS for the AA vicinity. The USFWS Sacramento Fish and Wildlife Office provided a list (Project code 2024-0094382) of threatened and endangered species that may occur in Project vicinity. No additional consultation has occurred with the USFWS for this Project.



● Project Location

0 1.5 3 Miles
(At original document size of 8.5x11)
1:250,000

N

Stantec

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: California State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Esri, NASA, NGA, USGS, San Joaquin County GIS/Planning, California State Parks, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS, Esri, USGS

Project Location
Midway
Alameda County, CA

Prepared by KDLP on 2024-06-12
IR by SE on 2024-06-12

Client/Project
185706735

Potentia-Viridi Battery Energy Storage System
Biological Assessment

Figure No.
Figure 1

Title
Project Location

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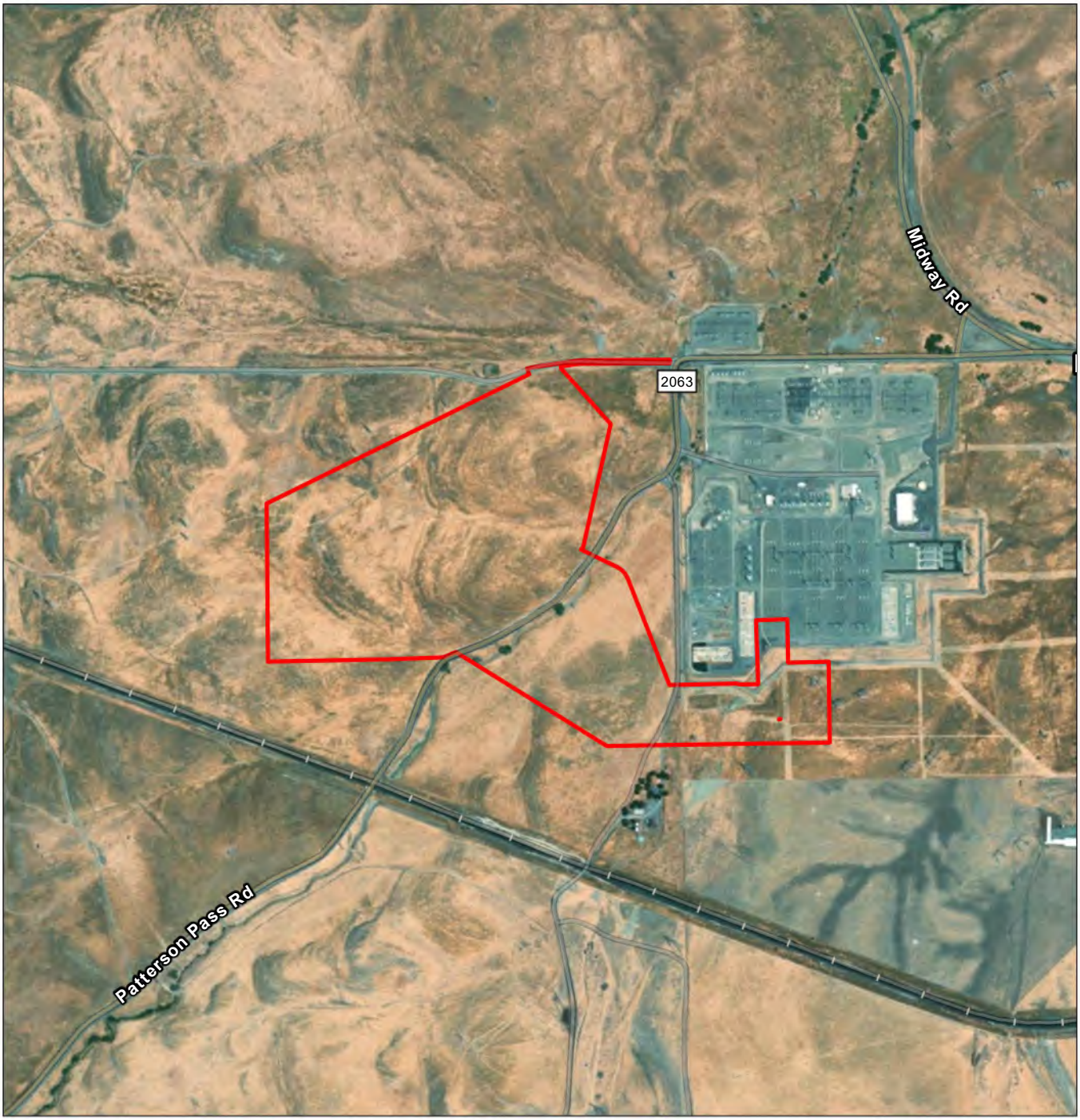

Action Area

0 425 850 Feet

(At original document size of 8.5x11)
1:12,000

N

Stantec

Notes

1. Coordinate System: NAD 1983 UTM Zone 10N

2. Data Sources: Esri Community Maps Contributors, San Joaquin County GIS/Planning, San Joaquin County Public Works, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, USGS, Maxar, San Joaquin County GIS/Planning, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

Project Location
Midway
Alameda County, CA

Prepared by KDLP on 2024-06-12
IR by SE on 2024-06-12

Client/Project
185706735

Potentia-Viridi Battery Energy Storage System
Biological Assessment

Figure No.
Figure 2

Title
Action Area

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2.0 SPECIES CONSIDERED

To determine which special-status species have the potential to occur within the vicinity of the AA, Stantec obtained official special-status species lists consisting of federally endangered (FE), federally threatened (FT), proposed threatened (PT) and Candidate (C) species from the USFWS, CNDDB, and CNPS. The list was generated for the *Midway, California* 7.5-minute USGS topographic quadrangle and eight surrounding quadrangles (*Byron Hot Springs, Clifton Court Forebay, Union Island, Altamont, Tracy, Mendenhall Springs, Cedar Mountain, and Lone Tree Creek*). Following a review of the special-status species lists, a total of thirteen (13) federally listed species were identified to have the potential to occur within the AA (Appendix A). For this report, special-status species include species listed as threatened, endangered, candidate, or proposed for such listing under the ESA.

A list of those three special-status species is included below.

Plants

- Large-flowered fiddleneck (*Amsinckia grandiflora*) (FE)
- Lassics lupine (*Lupinus constancei*) (FE)

Insects

- Monarch butterfly (*Danaus plexippus*) (C)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (FT)
- Vernal pool fairy shrimp (*Branchinecta lynchi*) (FT)
- Vernal pool tadpole shrimp (*Lepidurus packardi*) (FE)

Amphibians

- California red-legged frog (*Rana draytonii*) (FT)
- California tiger salamander (*Ambystoma californiense*) (FT)
- Western spadefoot (*Spea hammondii*) (PT)

Reptiles

- Alameda whipsnake (*Masticophis lateralis euryxanthus*) (FT)
- Northwestern pond turtle (*Actinemys marmorata*) (PT)

Birds

- California condor (*Gymnogyps californianus*) (FE)

Mammals

- San Joaquin kit fox (*Vulpes macrotis mutica*) (FE)

2.1 SUMMARY OF SPECIES WITH POTENTIAL TO OCCUR IN THE ACTION AREA

To determine which of the thirteen special-status species have the potential to occur within the AA, Stantec used information collected during the field assessment, vegetation and habitat mapping, CNDDB species occurrence records, online databases, and published information review.

Based on a review of the data sources listed above, only three of the thirteen special-status species were determined to have the potential to occur within the AA. These three species include California red-legged frog (CRLF), California tiger salamander (CTS) and San Joaquin kit fox. These three special-status species are addressed in further detail within this BA.

The remaining ten special-status species described above are not expected to occur within or adjacent to the AA due to lack of occurrences and/or suitable habitat and are excluded from further consideration in the remainder of this BA. Additional detail regarding the analysis that supports these conclusions is provided within the Biological Technical Report, included as Appendix B.

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3.0 DESCRIPTION OF THE PROPOSED PROJECT

3.1 PURPOSE AND NEED

The Project Objectives are:

- Construct and operate an economically viable, and commercially financeable, 400-MW battery energy storage facility in Alameda County with an interconnection at the Tesla Substation.
- 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.
- Assist California utilities in meeting obligations under the California Public Utilities Commission's Mid-Term Reliability Procurement Requirements.
- Develop an electricity storage facility in close proximity to a utility grid-connected substation with existing capacity available for interconnection to minimize environmental impacts.
- Relieve grid congestion, and enhance electricity reliability, without requiring the construction of new regional transmission infrastructure or substantial network upgrades.
- Construct and operate a battery energy storage facility in Alameda County, resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.

3.2 EXISTING CONDITION

The Project area is currently undeveloped, and the regional land use has remained largely unchanged since the 1980s based on aerial imagery (Google Earth Pro 2024). Relative to the proposed BESS facility lease area, the PG&E Tesla substation is about 0.25 miles east; high voltage transmission lines parallel the BESS facility lease area along the northwestern, northern, northeastern, and eastern boundaries; Patterson Pass Road roughly parallels the eastern boundary; the Western Pacific Railroad is about 0.1 miles southeast; and there is an existing gravel access road adjacent to the northern boundary. The gen-tie alignment connecting the BESS facility to the PG&E substation crosses Patterson Pass Road, Patterson Run (a seasonal stream channel), and generally proceeds southeast to the Point of Change of Ownership transmission structure, before turning east across the PG&E Tesla Substation property and then north into the substation boundary and Point of Interconnection. The BESS facility site and surrounding land have been used for cattle grazing in the past. However, the BESS facility lease area and PG&E Tesla Substation property have not been grazed recently, whereas the property crossed by the gen-tie between the BESS facility lease area and PG&E Tesla Substation Property is currently used as cattle pasture. The nearest city is Tracy, approximately 2.5 miles to the east of the Project area.

3.3 PROJECT DESCRIPTION

3.3.1 Project Components

The Project would include construction, O&M, and eventual decommissioning of a 400 MW BESS with an energy storage capacity up to 3,200 MWhs. Charging from or discharging to the electrical grid would be a 500kV gen-tie connecting the project substation to the point of interconnect (POI) within the existing PG&E Tesla Substation. The BESS Facility would include the following components:

- Battery Energy Storage System (BESS) Enclosures
- Power Conversion Systems (PCS)
- Medium voltage (MV) Collection System
- Project Substation, Control Building, and Telecommunications Facilities
- Access Roads
- Laydown Yards
- Stormwater Facilities and Outfall
- Site Security and Fencing, including fire detection system
- Operations and Maintenance Building

Project components are described in the following subsections. Figure 3, Project Design Features, 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	1,000*	20 ft x 8 ft x 10 ft (L x W x H)
PCS	140*	22 ft x 7 ft x 8 ft (L x W x H)
MV Collection system	--	Buried in trenches up to 5 ft x 10 ft (W x D)
Project Substation Area	1	500 ft x 450 ft; (5) 120 ft (H) (lightning masts)
Control Building	1	52 ft x 20 ft x 15 ft (L x W x H)
Wireless Communication Tower	1	18 ft x 18 ft x 199 ft (L x W x H)
Access Roads	--	20 ft (W) internal radii 25 ft minimum
Laydown Yards	4	Variable
Stormwater Detention Facilities	5	Variable
Stormwater Outfall	1	500 ft x 5 ft x 10 ft (L x W x D)

Security fencing	1	9 ft (H) 8 ft tall fence topped with 1 ft of barbed/razor wire
Operations and Maintenance Building	1	100 ft x 50 ft x 30 ft (L x W x H)

Notes: * The number of BESS enclosures and PCS units would 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	13.3 acres
Project Substation	5.5 acres
Access Roads	6.6 acres
Laydown Yards	15.2 acres
Stormwater Detention Areas	9.3 acres
Stormwater Outfall	0.6 acres
Other*	7.2 acres
Total+	*57.7 acres*

Notes: * Other areas include maximum grading limits. The analyses assume that all areas used for the BESS facility are permanently disturbed and kept free of vegetation to comply with fire requirements.
+The total permanent disturbance acreage is a conservative estimate, and final designs may require fewer acres. Underground components within the BESS facility would be located within the footprint of above ground disturbance areas.

3.3.1.1 Battery Energy Storage System

The energy storage facility would utilize a modular and containerized BESS. There are several battery cell technologies commercially available, with one of the most common at present being lithium iron phosphate (LFP) cells (often colloquially referred to as 'lithium-ion'). 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 would result in potential environmental impacts substantially similar to, or less than, those analyzed based on this Project Description.

The BESS enclosures would be prefabricated off-site and arrive at the site ready to be installed and commissioned. Each modular BESS enclosure would include battery packs on racks, a battery management system (BMS), fire protection, and ancillary power electronics within a specialized steel-framed, non-occupiable container. The BESS enclosures would not exceed approximately 15 feet in height. The BESS enclosures may also have a heating,

ventilation, and air conditioning (HVAC) system for optimal performance and safety. Power for the HVAC system, lighting, and other electrical systems would be provided through separate auxiliary power connection to the on-site project substation with connection lines installed above and/or below ground.

3.3.1.2 Power Conversion System

A PCS is a packaged and integrated 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 voltage output of the BESS enclosures.

The PCS would 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 would 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 would be unattended systems designed to operate in all conditions. The inverters would be monitored and controlled remotely, and there would be on-site disconnects for use in case of an emergency or a situation requiring unscheduled maintenance.

PCS units would be installed on concrete foundations and connected to multiple BESS enclosures with wiring and cables installed underground. All outside electrical equipment would be housed in the appropriate National Electrical Manufacturers Association (NEMA) rated enclosures.

3.3.1.3 MV Collection System

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

3.3.1.4 Project Substation

The project substation would include three main power transformers (MPTs) – two active and a live spare. When the BESS facility is charging, power from the regional electric transmission grid would be stepped down from 500kV to 34.5kV and sent from the project substation through the MV collection system and PCS units into the battery packs within the BESS enclosures. When the BESS facility is discharging, power from the battery packs within the BESS enclosures would be sent to the PCS units, stepped up to 34.5kV, and transported to the project substation through the MV collection system before being stepped up to 500kV at the MPTs and delivered back to the regional electric transmission grid. A prefabricated control building would be installed within the project substation area and contain an energy management system, metering and telecommunication equipment for communication with PG&E/CAISO facilities and to support remote Project operations monitoring. The project substation area would also include five static masts for lightning protection and a wireless communication tower mounted with an antenna up to 15 feet in diameter for external telecommunications.

3.3.2 Access Roads

The Project's roadway system would include two new facility access roads and driveways, a perimeter road, and internal access roads. One of the new site access roads and driveways would be constructed from an existing private road near the northeastern portion of the site, and the other would be constructed from Patterson Pass Road near the southwestern portion of the site. A project substation access road would be constructed outside of the perimeter fence, connecting the northeast and southwest driveways, to facilitate substation access by third parties during operations. All new access roads, driveways, internal and perimeter roads would be bladed, compacted, and surfaced with aggregate. All internal roadways and private driveways would be constructed to meet access requirements for construction, O&M, and emergency response requirements.

3.3.3 Laydown Yards

The Project would include up to 4 laydown yards for equipment and material staging and storage during construction. These areas would also be used for worker parking during construction. The primary laydown yard would be located directly adjacent to the project substation area (see Figure 3). The primary laydown yard would be bladed, compacted, and surfaced with aggregate, while additional laydown yards would be cleared of vegetation and surfaced with aggregate or other soil stabilizing materials. Portions of additional laydown yards may also be graded, if necessary. 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, would be constructed within the primary laydown following construction of the BESS facility components.

If the BESS technology ultimately procured prior to construction requires larger BESS yards to accommodate BESS enclosures with larger dimensions, a greater number of BESS enclosures, or greater spacing requirements to comply with regulations, portions of the additional laydown yards may be used to accommodate larger BESS yards than those currently proposed. 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 and Project schedule preservation.

3.3.4 Stormwater Facilities

The proposed BESS facility site currently consists of annual grassland with rolling topography. Regulatory standards require that volumes and flow rates of stormwater discharge after construction not exceed pre-development conditions. Stormwater generated on-site would flow to stormwater detention basins located along the periphery of the BESS facility site (Figure 3). Stormwater treatment and storage sizing would be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with applicable regulations. In the event stormwater basins reach capacity, stormwater would be discharged from the detention basins via storm drainpipes and sheet flow at rates no greater than pre-development conditions following natural drainage patterns.

A stormwater drainage outfall utilizing a new 15-inch corrugated metal pipe would be constructed from a detention basin located in the southwest portion of the site to the inlet of an existing culvert on the north side of Patterson Pass Road. Approximately 10 cubic yards of clean rip-rap would be placed as an energy dissipator at the outfall to discharge clean stormwater at or below current rates into the existing drainage on the south side of Patterson Pass Road.

3.3.5 Site Security

The BESS facility site would be enclosed with an 8-foot tall chain link fence topped with 1 foot of three-strand barbed wire or razor wire. The fence would be installed on the outside of the perimeter road. An additional fence with the same specifications would be installed around the project substation area. The fences would be required to prevent unauthorized access and to comply with human health and safety regulations. Gates would be installed at various access points along the fence lines and equipped with lock 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.

Lighting would only be in areas where it is required for safety, security, or operations. Low-elevation (less than 14 feet) controlled security lighting would be installed at the project substation and around the BESS yards, in accordance with applicable requirements and regulations. Permanent motion-sensitive, directional security lights would be installed to provide adequate illumination around the substation area and points of ingress/egress. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties, compliant with applicable codes and regulations. Security cameras would be placed on site and monitored 24/7.

3.3.6 Fire Protection System

Fire protection would include multiple fire detection systems on-site and within the individual BESS enclosures. An infrared camera system would be installed throughout the BESS facility to achieve 100% of electrical infrastructure and trigger an alarm in case of an onsite fire. Each BESS enclosure would have a fire rating in conformance with the California Fire Code 2022. In addition, each BESS enclosure would contain an onboard BMS that monitors the appropriate state of individual battery cells and relays information 24-7. In the event of an anomaly, the system is designed to shut down and mitigate the hazard.

The Project's fire protection design would 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 would 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 would not propagate from one enclosure to a neighboring enclosure. The Project's BESS enclosures, as part of the testing and listing process, would be subjected to destructive testing including fire testing. The Project's BESS enclosures would 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 California Department of Forestry and Fire Protection (CAL FIRE) would review and comment on the facility fire protection plans.

3.3.7 Operations and Maintenance Building

Following construction of the BESS facility, an O&M building would be constructed within the primary laydown yard for the Project's anticipated three full-time operations staff. The O&M building would include parking, outside equipment and laydown areas, basic offices, meeting rooms, washroom facilities and climate-controlled storage for certain equipment and materials. A potable water storage tank would provide water for washroom and sanitary facilities, and sewage/wastewater would be collected in a separate tank. Potable water would be trucked to the water storage tank periodically during O&M, and sewage/wastewater would be pumped from the storage tank, transported offsite via truck, and disposed of at a sanitary dump station, as needed, during operations. The O&M building would be powered via a distribution line from the project substation.

3.3.8 Transmission and Interconnection Description, Design, and Operation

The Project would be interconnected to the regional electrical transmission grid via an approximately 2,884-foot long new single-circuit 500kV gen-tie line within a 200-foot wide corridor between the project substation and the PG&E Tesla Substation. The Applicant would construct and own the portion of the gen-tie line between the project substation and the Point of Change of Ownership (POCO) transmission structure, and PG&E would construct and own the remaining portion of the gen-tie from the POCO to the POI within the Tesla Substation. The Project's transmission and interconnection facilities would include the following components:

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

The proposed route location 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 Telsa 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 shows the gen-tie route, scattered rural residences, and existing transmission lines within one mile of the proposed route. No parks, recreational areas, or scenic areas are located within one mile of the proposed gen-tie route. 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.

Table 3. Preliminary Dimensions of Major Transmission Components

Component	Quantity	Approximate Dimensions
500kV Gen-Tie Line	1	Applicant Owned: 1,557ft long
		PG&E Owned: 1,327ft long
Substation Bay Dead-End Transmission Structure	2	Applicant Owned: 1 structure; up to 110ft above ground level; two seven-foot diameter foundations, installed up to 30ft deep; constructed within project substation area footprint
		PG&E Owned: 1 structure; up to 110ft above ground level; two seven-foot diameter foundations, installed up to 30ft deep; constructed within Tesla Substation footprint.
Angled Dead-End Transmission Structure	3	Applicant Owned: 2 structures; Up to 199ft above ground level; three nine foot diameter foundations, installed up to 40ft deep, per structure
		PG&E Owned: 1 structure; Up to 199ft above ground level; three nine foot diameter foundations, installed up to 40ft deep.
H-Frame Tangent Transmission Structure	1	Applicant Owned: Up to 199ft above ground level; two six-foot diameter foundations, installed up to 30ft deep.
Conductors	6	Two 2,300 kcmil 61W AAC “Pigweed” per phase. 30ft minimum ground clearance.
Overhead Shield Wire	2	Two 3/8in extra high strength 7-strand steel
Fiber Optic Utility Poles	16	Up to 40ft above ground level; up to 20in diameter wood poles direct embedded up to 8ft deep.
Fiber Optic Cables	2	All dielectric self-supporting fiber optic cable. Two redundant and diverse routes. Installed above ground on utility poles by Applicant from Project Substation to POCO. Installed by PG&E underground in trenches up to 2ft wide and 4ft deep between POCO and Tesla Substation.
Transmission Structure Access Path	1	Applicant Owned: 20ft wide; up to 1,750ft long
		PG&E Owned: 20ft wide; up to 950ft long
Transmission Line Corridor	1	200ft wide

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

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	0.4 acres	-
Transmission Structure Access Path	0.7 acres	-
Fiber Optic Utility Poles	0.1 acres	-
Tension and Pulling Site	-	3.6 acres
Applicant Total	*~1.2 acres*	*~3.6 acres*
PG&E Portion		
Transmission Structure Pad	0.2 acres	-
Transmission Structure Access Path	0.5 acres	-
Tension and Pulling Site	-	3.1 acres
PG&E Total	*~0.7 acres*	*~3.1 acres*

3.3.9 500kV Gen-Tie Line

The 500kv gen-tie line would originate at the project substation within the BESS facility site and extend southeast, crossing Patterson Pass Rd overhead until reaching the POCO structure. After reaching the POCO structure the route would proceed east to an angled dead-end structure outside of the Tesla Substation fence line before extending north to a new substation dead-end structure at the POI bay within the Tesla Substation footprint. The 200-foot-wide transmission corridor would be within the BESS facility lease area on APN 99B-7890-2-4 and within an easement on APN 99B-7890-2-6 until reaching the parcel's eastern boundary about 255 feet east of the POCO structure. Both parcels comprising the BESS facility lease area and transmission corridor easement are private lands owned by the same landowner. After crossing the eastern boundary of APN 99B-7890-2-6, the remaining portion of the gen-tie would be on the same PG&E-owned parcel that includes the 500kV Tesla Substation and POI. Table 3 includes the approximate number and dimensions of the three different types of transmission structures that would be used. The gen-tie would 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 2006), where feasible.

3.3.10 Transmission Structure Access Path

A transmission structure access path would be located within portions of the transmission corridor outside of the BESS facility and Tesla Substation footprints and generally follow the centerline of the gen-tie. The portion of the transmission structure access path between Patterson Pass Road and the POCO structure would include a dry

crossing of Patterson Run and require clean fill material (e.g., large cobbles, clean, native gravel, prefabricated mats) to be placed beneath the ordinary high water mark elevation for stabilization and erosion and sedimentation control.

3.3.11 Telecommunication Facilities

Telecommunications equipment would be installed between the control building at the project substation and the Tesla Substation to facilitate communication with PG&E/CAISO facilities. PG&E interconnection policies require two redundant fiber optic cables to be installed on diverse paths without a single point of failure (i.e., both fiber optic lines cannot be installed on a single set of structures). Between the control building within the project substation area and the POCO structure, the Applicant would install the two fiber optic lines above ground on separate utility structures within the transmission corridor. One route would be installed near the northern boundary of the transmission corridor and the other would be installed near the southern boundary of the transmission corridor. The fiber optic utility poles would be accessed via overland travel from the transmission structure pads or the transmission structure access path. At the POCO structure, each of the fiber optic cables would be brought down to an underground pullbox. PG&E would install the fiber optic cables underground from the pull boxes to the PG&E control building at the Tesla Substation. A microwave antenna installed on a communications tower within the project substation area, an optical ground wire installed on the 500kV structures, or placed underground within the transmission structure access path, between the project substation and POCO may be used in lieu of a second set of utility poles, if feasible.

3.3.12 Interconnection Facilities within Existing PG&E Tesla Substation Footprint

To facilitate interconnection of the BESS facility to the electric transmission grid, PG&E would need to install a substation bay dead-end transmission structure and expand the POI's 500kV breaker-and-a-half bay with a new circuit breaker.

3.3.13 Transmission System Impact Studies

The Applicant filed an Interconnection Request with CAISO in the Cluster 13 Interconnection Request window. CAISO, in cooperation with PG&E, prepared the Phase I Interconnection Study (February 12, 2021), and Phase II Interconnection Study (November 22, 2021). The Applicant entered into a Large Generator Interconnection Agreement (LGIA) with CAISO and PG&E on October 31, 2022. No Affected Systems controlled by CAISO or PG&E were identified during the interconnection study process. Non-CAISO systems potentially affected by the Project and other Cluster 13 projects are Western Area Power Administration and Modesto Irrigation District. The Applicant is working with both system operators to identify specific impacts and will take all reasonable steps to address potential reliability system impacts prior to the initial synchronization of the Project.

3.3.14 Construction

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

3.3.14.1 Schedule and Workforce

The Project is anticipated to be built over an approximately 18-month period from the onset of site preparation activities through energization. Following energization, testing and commissioning would take place over 6 months.

Initial mobilization and site preparation is anticipated to begin no later than Q1 2026 and testing and commissioning is anticipated to conclude no later than Q2 2028. It is anticipated that construction crews would work 8 to 10 hours per day, with work occurring Monday through Friday. Overtime, night work, and weekend work would be used only as necessary to meet the project schedule or complete time-sensitive or safety critical work. All work schedules would comply with applicable California labor laws, county regulations, and the Project Labor Agreement. Estimated durations of construction activities are presented in Table 5. However, the duration of particular construction activities may be affected by weather, unanticipated site conditions, the supply chain, and coordination between the different activities.

The expected average workforce for each construction activity is also included in Table 5.

Table 5. Estimated Construction Activity Duration and Average Workforce Expected

Construction Activity	Estimated Duration	Average Workforce Expected (Number of Employees)
Site Preparation	8 Weeks	25
Civil Work and Grading	24 Weeks	55
Foundations and Underground Equipment	16 Weeks	50
BESS Equipment Installation	20 Weeks	60
Project Substation Installation	32 Weeks	20
Gen-Tie Foundations and Structure Erection	8 Weeks	10
Gen-Tie Line Stringing and Pulling	2 Weeks	10
Testing and Commissioning	22 Weeks	10
PG&E Interconnection Facility Upgrades within Tesla Substation	26 Weeks	10

3.3.14.2 Sequencing

During construction activities, multiple crews would be working on the site with various equipment and vehicles. The total number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) would range from approximately 5 to 200 workers, depending on the phase of construction. It is estimated that construction would require the vehicle trips and equipment listed in Table 6.

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	Total One-Way Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site Preparation	50	10	600	Graders	2	8
				Rubber Tired Loaders	2	8
				Skid Steer Loaders	2	8
				Tractors/Loaders/ Backhoes	2	8
Site Grading and Civil Work	110	76	30,240	Graders	4	8
				Rollers	4	8
				Rubber Tired Loaders	4	8
				Skid Steer Loaders	4	8
				Tractors/Loaders/ Backhoes	4	8
				Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
				Plate Compactors	1	8
				Cement and Mortar Mixers	1	4
				Rock Crushers	4	8
Foundations and Underground Equipment Installation*	100	10	20	Paving Equipment	2	8
				Rollers	2	8
				Plate Compactors	2	8
				Cement and Mortar Mixers	2	8
				Bore/Drill Rig	3	8
				Tractors/Loaders/ Backhoes	6	8
				Excavators	2	8
				Rubber Tired Dozers	2	8
				Trenchers	4	8
				Skid Steer Loaders	2	8

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	Total One-Way Haul Truck Trips	Equipment Type	Quantity	Usage Hours
BESS Installation*	160	20	2,636	Air Compressors	2	8
				Cranes	3	8
				Generator Sets	4	8
				Rough Terrain Forklifts	2	8
				Skid Steer Loaders	2	8
Project Substation Installation	40	20	0	Air Compressors	2	8
				Aerial Lifts	6	8
				Cranes	2	8
				Generator Sets	2	8
				Rough Terrain Forklifts	2	8
Gen-tie foundation and tower erection	28	2	0	Bore/Drill Rig	1	8
				Cranes	2	8
				Forklifts	2	8
				Boom Truck	1	8
				Flat Bed Truck	1	8
				Cement and Morter Mixer	1	8
				Bucket Lift Truck	1	8
Gen-tie stringing and pulling	24	2	0	Heavy-duty Truck (Puller)	1	8
				Heavy-duty Truck (Tensioner)	1	8
				Forklifts	2	8
				Generator Sets	2	8
				Tractors/Loaders/ Backhoes	2	8
				Boom Truck	1	8
				Trencher	1	8
PG&E Interconnection Facility Upgrades	40	20	0	Air Compressors	4	8
				Cranes	2	8
				Excavators	2	8

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	Total One-Way Haul Truck Trips	Equipment Type	Quantity	Usage Hours
				Generator Sets	4	8
				Rough Terrain Forklifts	2	8
				Skid Steer Loaders	2	8
				Tractors/Loaders/ Backhoes	2	8
				Trencher	1	8
Testing and Commissioning	52	0	0	Rough Terrain Forklift	1	8
				Off-Highway Trucks	3	8
Decommissioning	40	2	2,640	Concrete/Industrial Saws	2	8
				Cranes	2	8
				Rubber Tired Dozers	2	8
				Tractors/Loaders/ Backhoes	2	8

Notes: * The project layout depicted in Figure 3 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.

3.3.14.3 Site Preparation

Environmental clearance surveys would 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 would be surveyed and staked. Initial ground disturbing activities in preparation for construction would include installation of erosion and sediment control measures prior to start of major earthworks activities. Rough grading and grubbing/vegetation removal would be performed where required to accommodate site drainage and allow construction equipment to access the site. Detention basins and stormwater facilities would be created for hydrologic control. The construction contractor would 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 would be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation would be consistent with applicable BMPs and the Bay Area Air Quality Management District's Fugitive Dust Rules. Site preparation would involve the removal and proper disposal of existing debris that would unduly interfere with Project construction or the health and safety of on-site personnel. Dust-minimizing techniques

would be employed, such as placement of wind control fencing, application of water, and application of dust suppressants. All applicable governmental requirements and BMPs would be incorporated into the construction activities for the Project site.

Vegetation on the site would 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 would 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 would be permanently disturbed.

3.3.14.4 Site Grading and Civil Work

Following site preparation activities, grading and civil work would commence. Construction activities during this phase would include excavation and grading of the Project site. Earthwork on the site is ultimately anticipated to result in nearly balanced cut and fill volumes, but the preliminary designs conservatively assume that grading would include up to approximately 588,018 cubic yards (cy) of cut and up to approximately 344,900 cy of fill, resulting in up to approximately 243,118 cy of export material. As appropriate, all, or a portion of, of the Project's excess material resulting from earthwork may be used beneficially used on-site for the construction of berms or other onsite needs. Where appropriate, excess material would be processed in one or more different types of rock crushing equipment depending on the requirements of the various potential beneficial uses onsite. Blasting may be required if large boulders are encountered during excavation and grading.

Conventional grading would be performed throughout the Project site but minimized to the maximum extent feasible to reduce unnecessary soil movement that may result in dust. Land-leveling equipment, such as a smooth steel drum roller, would 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 would be graded, compacted, and surfaced with gravel or aggregate. Class II road base would be imported to create necessary compaction under the equipment, as determined by geotechnical testing and Project specifications. Once the roadways have been constructed, the project perimeter fence and access gates would be constructed.

3.3.14.5 Foundations and Underground Equipment Installation

Following completion of major site grading and civil work, equipment foundations and below grade equipment would be installed. A grounding grid and underground conduit would 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 would be backfilled, compacted, and leveled followed by application of an aggregate rock base. A containment area within the MPT foundations would 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 10 feet deep. Foundations for the control building, static masts, other aboveground substation equipment, O&M building, BESS enclosures, PCS units, DC/DC converters, and BESS auxiliary transformers and panels are anticipated to be pile foundations embedded up to 40 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 would included 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 would either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application

3.3.14.6 BESS and Project Substation Equipment Installation

Where possible, major equipment would 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 would be stored at one of the laydown areas near its permanent location and installed at a later date. Major aboveground equipment would be the MPTs and other project substation components, control building, BESS enclosures, PCS units, DC/DC converters, BESS auxiliary transformers and panels, and O&M building.

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

3.3.14.7 Gen-Tie Structure Erection

Environmental clearance surveys would be performed within the gen-tie corridor prior to commencement of construction activities. The gen-tie corridor boundaries, gen-tie centerline, telecommunications route centerlines, and transmission structure access path would be surveyed and flagged. Initial activities would include the installation of erosion and sediment control measures and materials to facilitate the dry crossing of Patterson Run, 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 would be at-grade to allow water to sheet flow across the gen-tie corridor, as it currently does. Access to the fiber optic utility pole locations would be via overland travel from the transmission structure pads or access path. Overland travel and temporary construction activities associated with the gen-tie and telecommunications facilities may occur anywhere within the 200-foot-wide transmission corridor and 50 feet on either side of the transmission corridor boundary. Vegetation at the transmission and fiber optic utility pole work areas would be trimmed, mowed, or removed. At locations where gen-tie line structures and fiber optic utility poles would be installed, minor cuts may be required where the foundation would be installed.

Cast-in-place concrete foundations would 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 would be set on anchor bolts on top of the foundation with cranes. Fiber optic utility poles would be direct embedded in holes up to 8 feet deep. Holes would be excavated using a truck-mounted drill rig or standalone auger rig. Poles would be delivered on a flat-bed trailer and hoisted into place with a crane. The annular space between the poles and holes would be backfilled with concrete or soil. Excavated spoil material not used for backfilling would be spread around the structure work areas.

3.3.14.8 Gen-Tie Stringing and Pulling

Conductors would be strung between transmission structures with heavy duty trucks and a telescoping boom lift. Cables would be pulled through one segment of the transmission line at a time. To pull cables, truck-mounted cable-pulling equipment is placed alongside the first and last towers or poles in a segment. Power pulling equipment is used at the front end of the segment, while power braking or tensioning equipment is used at the back end. The conductors are then pulled through the segment and attached to the insulators. Equipment is then moved to the next segment; the front end pull site previously used becomes the back end pull site for the next segment. After conductors have been pulled into place in a section, the conductor tension is increased to achieve a ground clearance of at least 30 feet prior to moving to the next section.

Three tension and pulling sites are anticipated to facilitate construction of the gen-tie: one within the BESS facility footprint near the first angled dead-end structure, one at the POCO structure, and another at the PG&E-constructed angled dead-end structure near the Tesla Substation fence line.

3.3.14.9 PG&E-Owned Gen-Tie Segment and Interconnection Facilities within Tesla Substation Footprint

PG&E would construct the segment of the gen-tie between the POCO and the POI within the Tesla Substation, and the fiber optic routes between the POCO and the PG&E control building within the Tesla Substation footprint. The Applicant would bring the fiber optic cables to underground pull boxes at the POCO structure, and PG&E would 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 three feet wide, and the trenches for the redundant routes would need to be at least 10 feet apart to meet PG&E's diverse path requirements. It is anticipated that PG&E would install the trenches within the access road to the angled dead-end structure outside the Tesla Substation fence line. However, PG&E 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.

PG&E would also construct the interconnection upgrades within the Tesla Substation footprint at the POI. These upgrades would include erection of a new substation bay dead-end transmission structure and expanding the POI's existing 500kV substation bay-and-a-half bay with a new circuit breaker. Other activities within the Tesla Substation footprint and/or property boundary may include relocation or modification of existing PG&E infrastructure. Additional potential disturbance acreage associated with PG&E's work to facilitate interconnection of the Project to the grid are not anticipated to exceed 5 additional acres of disturbance beyond the estimates in Table 4.

3.3.14.10 Construction Water Use

During construction, an estimated 16,000,000 million gallons (~49.1 acre-feet) of untreated water would 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 would not be required during construction because restroom facilities would be portable units, serviced by licensed providers, and water and sewage from the restroom facilities would be stored in onsite tanks and serviced by trucks. Drinking water would be provided via portable water coolers. Construction water is anticipated to be purchased from a local water purveyor and trucked to the site.

3.3.14.11 Solid and Non-hazardous Waste

The Project would 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 would be segregated, where practical, for recycling. Non-recyclable waste would be placed in covered dumpsters and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III (non-hazardous waste) landfill.

3.3.14.12 Hazardous Materials

The hazardous materials used for construction would 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 would be prepared prior to commencement of construction activities. The hazardous materials business plan would include a complete list of all materials used on site and information regarding how the materials would be transported and in what form they would be used. This information would 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 would be made readily available to on-site personnel.

3.3.14.13 Hazardous Waste

Small quantities of hazardous waste would 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 would be trained to properly identify and handle all hazardous materials. Hazardous waste would 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 would be transported by a licensed hazardous waste hauler.

3.3.15 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 Institute of Electrical and Electronic Engineers, National Electrical Code (NFPA 70), International Electrical Testing Association, specific provisions of National Fire Protection Association, and the relevant manufacturers installation and commissioning manuals. Documentation necessary for commissioning will include (but is not limited to) complete sets of electrical plans, itemized equipment descriptions, control narratives, and other procedural requirement such as persons or entities to notify when equipment has become available for acceptance tests.

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

and construction contractor and reviewed by the Engineer of Record, as part of the construction documentation package.

3.3.16 Operations and Maintenance

Once constructed, the Project would operate 7 days per week, 365 days per year. The facility would be remotely monitored by the original equipment manufacturer or an affiliated company. Project operations would be monitored remotely through the SCADA system and by the Project's anticipated three full-time operations staff members.

Onsite maintenance would be required, which would 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 would visit the substation periodically for switching and other operation activities. Maintenance trucks would 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 would 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 would occur to maintain the capacity over an approximate 35-year life. Augmentation would 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 3 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 3 and 4 above, and environmental analyses in subsequent Chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

3.3.16.1 Solid and Nonhazardous 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 would be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste would be placed in covered dumpsters and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

3.3.16.2 Hazardous Materials

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

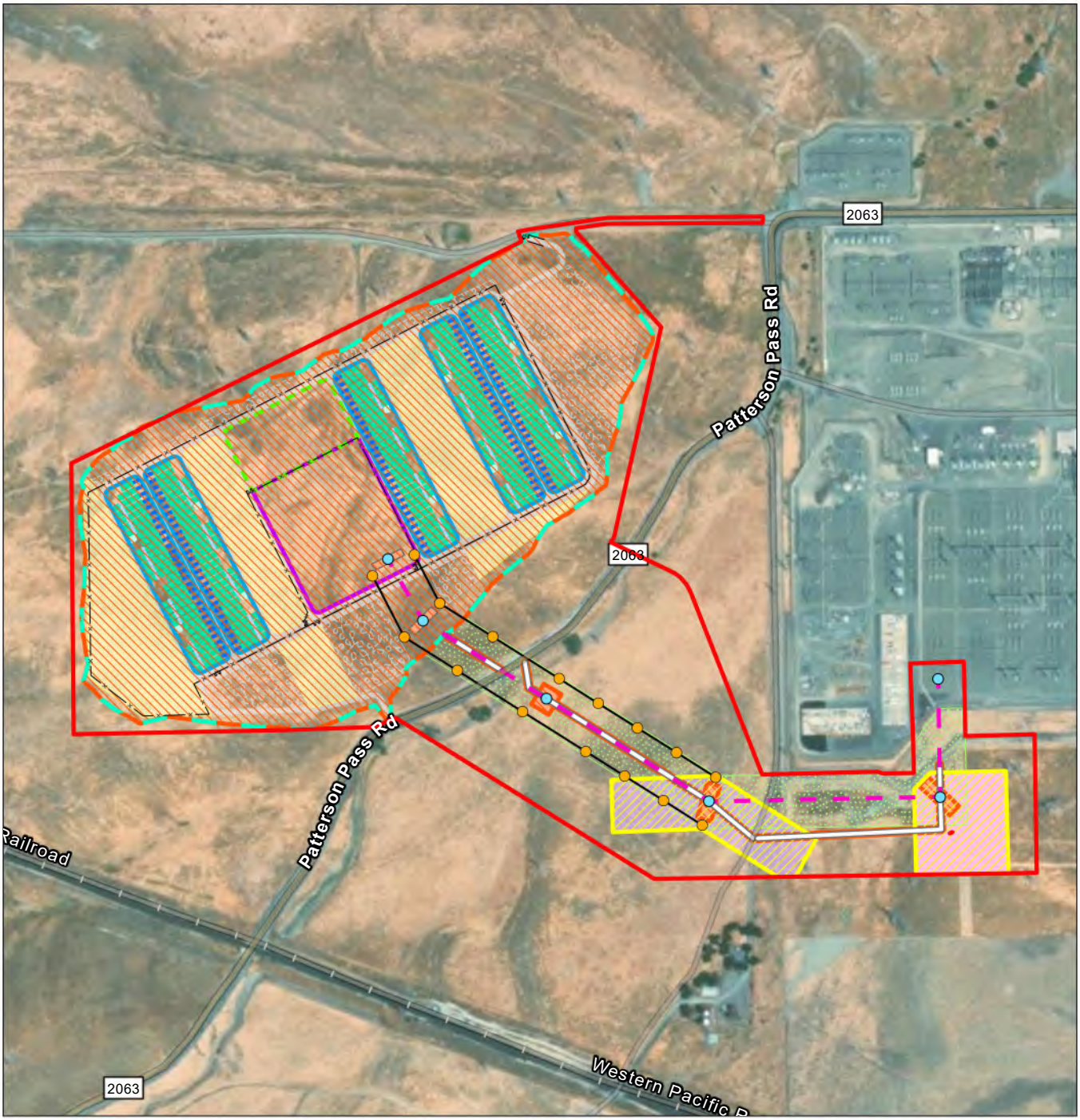
3.3.16.3 Hazardous Waste

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

3.3.17 Decommissioning

In general, the BESS would be recycled at the expiration of the Project's life (estimated to be 35 years). Most parts of the proposed system are recyclable. Batteries include lithium-ion, which degrades but can be recycled or repurposed. Steel, wood, and concrete from the decommissioned facilities would be recycled. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Materials three feet or more below the ground surface would be left in place.

Fuel, hydraulic fluids, and oils would be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels would 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, would 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 would be recycled at an appropriate facility. Site personnel involved in handling these materials would be trained to properly handle them. Containers used to store hazardous materials would be inspected regularly for any signs of failure or leakage. Additional procedures would be specified in a Hazardous Materials Business Plan closure plan submitted to the Certified Unified Program Agencies. Transportation of the removed hazardous materials would 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.



Notes

1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: Esri Community Maps Contributors, San Joaquin County GIS/Planning, San Joaquin County Public Works, California State Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, CGIAR, USGS, Maxar, San Joaquin County GIS/Planning, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS,

- Action Area
- Telecomm Pole
- HV Structure
- Telecomm Line
- Gen-Tie
- Gen-Tie Corridor
- PG&E Temporary Work Area
- Tension Pulling Area
- Transmission Access Path
- Laydown Yard
- BESS Yards
- BESS Enclosures
- DC/DC Converters
- PCS Units
- Auxilary Transformers and Panels
- Primary Laydown Yard
- Project Substation Area
- Fence Line
- Stormwater Areas
- Roads
- Grading Limits
- Temporary Distrubance
- Permanent Disturbance

0 250 500 Feet

(At original document size of 8.5x11)
1:7,000

N

Stantec

Project Location
Midway
Alameda County, CA

Prepared by KDLP on 2024-06-12
IR by SE on 2024-06-12

Client/Project
185706735

Potentia-Viridi Battery Energy Storage System
Biological Assessment

Figure No.
Figure 3

Title
Project Design Features

V:\18577\Active\185706735\Pro\PV_BESS_BA\PV_BESS_BA.aprx Revised: 2024-06-12 By: kdelapena

4.0 FIELD INVESTIGATION

Dudek qualified biologists conducted biological field surveys in 2023 and 2024 to evaluate the AA for special-status species and habitat. These included reconnaissance surveys and focused surveys for rare plants, burrows, and CRLF habitat. Additionally, a formal aquatic resource delineation was conducted concurrently with the reconnaissance and focused surveys in 2024. The field surveys are summarized in Table 7 and discussed further below.

Table 7. Field Survey Summary

Date	Survey Type(s)	Biologists	Time	Survey Conditions
3/31/2023	Reconnaissance (original Project site boundary only, excludes gen-tie)	Emily Scricca, Erin Fisher-Colton	9:30am-11:30am	58°F–61°F, 75%–90% cloud cover, 1–4 mph wind
5/16/2023	• Protocol-Level Botanical • Focused Burrow Surveys	Kelsey Higney Lorna Haworth	8:41 a.m.–11:15 a.m.	80°F–85°F, 0% cloud cover, 0–6 mph wind
8/2/2023	• Reconnaissance (gen-tie alignment only) • Protocol-Level Botanical • Focused Burrow Surveys • Protocol-level California Red- Legged Frog (CRLF) Habitat Assessment	Kelsey Higney Erin Fisher-Colton	9:23 a.m.–4:54 p.m.	71°F–80°F, 0% cloud cover, 5–20 mph wind
1/18/2024	• Reconnaissance (adjusted gen-tie alignment only) • Protocol-Level Botanical (adjusted gen-tie alignment only) • Focused Burrow Surveys (adjusted gen-tie alignment only) • Aquatic Resources Delineation	Mikaela Bissell Erin Fisher-Colton	9:16 a.m.-2:30 p.m.	50°F–58°F, 80%-100% cloud cover, 1- 4 mph wind

All plant species encountered during the field surveys were identified to lowest possible taxonomic rank and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) follow the CNPS Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2024). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2023), and common names follow the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2023a). Wildlife species detected during field surveys by sight, calls, tracks, scat, or another sign were recorded. Binoculars (8-times magnification) were used to identify observed wildlife. See Appendix B for Biological Technical Report.

4.1 RECONNAISSANCE SURVEYS

A reconnaissance-level field survey was conducted on March 31, 2023, to identify vegetation communities and assess the original BESS Project site boundary and vicinity for suitable habitat for special-status plant and wildlife species. This survey was conducted on foot and by vehicle to provide complete visual coverage of the original Project site. No protocol-level surveys were conducted at this time.

A follow-up reconnaissance-level field survey was conducted for the updated AA which included the BESS Project site and buffered gen-tie alignment of the Project area on August 2, 2023, in conjunction with the surveys for rare plants and burrows. This survey was conducted on foot to identify vegetation communities in the updated AA boundaries. During the August reconnaissance survey, a reconnaissance-level wetland assessment was done for the site. The focus was to determine if there were any potential jurisdictional waters on the site that would require further protocol jurisdictional delineations.

A second follow-up reconnaissance-level field survey was conducted for the adjusted buffered gen-tie alignment on January 18, 2024. This survey was conducted on foot to identify vegetation communities along the adjusted gen-tie alignment and included surveys for rare plants and burrows within the adjusted buffered gen-tie alignment.

4.2 PROTOCOL-LEVEL BOTANICAL SURVEYS

Protocol-level rare plant surveys were conducted on May 16, 2023, August 2, 2023, January 18, 2024, April 15, 2024, May 3, 2024, and May 24, 2024, to identify special-status rare plant species within the updated AA boundaries. Dudek qualified biologists surveyed the entire Project site on foot in approximately 20-meter parallel transects to provide complete visual coverage within the updated AA boundaries and gen-tie alignment. Rare plants surveys were conducted in accordance with the Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 2000), the Protocol for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018), and the CNPS Botanical Survey Guidelines (CNPS 2001).

4.3 FOCUSED BURROW SURVEYS

Focused burrow surveys were conducted on May 16, 2023, August 2, 2023, and January 18, 2024, to identify a variety of animal burrows within the updated AA boundaries. Dudek qualified biologists surveyed the entire AA on foot in approximately 20-meter parallel transects to provide complete visual coverage within the updated AA boundaries and gen-tie alignment. All burrows potentially suitable for San Joaquin kit fox were documented and mapped using ArcGIS Field Maps (Environmental Systems Research Institute [Esri]). Several larger California ground squirrel (*Otospermophilus beecheyi*) burrows were documented on the eastern side of the AA, adjacent to Patterson Pass Road. Although atypical for San Joaquin kit fox, these burrows were documented as being potentially suitable for this species. Additional burrow surveys were conducted April 15, May 3, and May 24, 2024. All burrows onsite were determined to be either ground squirrel or pocket gopher (*Thomomys bottae*) and were not suitable for San Joaquin kit fox. Further, no sign of either of this species has been documented during any site survey conducted in 2023 or 2024.

4.4 PROTOCOL-LEVEL CALIFORNIA RED-LEGGED FROG HABITAT ASSESSMENT

A protocol-level habitat assessment for CRLF was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the AA to identify potential aquatic breeding sites within dispersal distance of the AA. Not all aquatic habitats within 1 mile were able to be surveyed due to access restrictions. Habitat assessments were conducted in accordance with the USFWS Revised Guidance on Site Assessments and Field surveys for the California Red-legged Frog (USFWS 2005). Aquatic features were coarsely mapped along top of bank using ArcGIS Field Maps (Esri).

4.5 AQUATIC RESOURCES DELINEATION

A preliminary wetland assessment was conducted during the reconnaissance survey on August 2, 2023, to generally identify and coarsely map aquatic resources that may require further protocol jurisdictional delineations. Dudek then conducted a complete aquatic resources delineation concurrent with the reconnaissance-level biological field survey on January 18, 2024, to identify and map the extent of aquatic resources within the entire AA that are potentially subject to regulation under federal Clean Water Act Sections 401 and 404, CFGC Section 1602, or under the Porter-Cologne Act.

5.0 NATURAL ENVIRONMENT

The following section provides a description of the existing physical and biological conditions within and adjacent to the Action Area.

5.1 GENERAL SETTING

The AA is within a Mediterranean climate where annual temperatures range from 38.3 degrees Fahrenheit (°F) to 92.6°F (WRCC 2023). According to the Tracy Pumping Plant (049001) Weather Station Gauge, yearly precipitation averages 12.03 inches, with the highest average rainfall recorded in January (2.54 inches) (WRCC 2023). The past winter season has had higher than average rainfall.

The AA is relatively flat, with an approximate elevation of 383 to 523 feet at mean sea level. According to the US Department of Agriculture (USDA) Natural Resources Conservation Service, three soil types are present: Linne clay loam, 3% to 15% slopes (65.65 acres); Linne clay loam, 15% to 30% slopes, MLRA 15 (2.80 acres); and Rincon clay loam, 0% to 3% slopes (19.75 acres) (USDA 2024). The Linne series consists of moderately deep, well drained soils that formed in material from soft shale and sandstone. The Rincon series consists of deep, well drained soils that formed in alluvium from sedimentary rock. None of the three soil types mapped on site are included on the USDA list of hydric soils (USDA 2023b) commonly associated with wetlands or other waters.

The AA occurs within the North Diablo Range of the Alameda Creek Watershed (USGS 2023). According to the USFWS National Wetlands Inventory (NWI), there are several freshwater ponds, freshwater wetlands, and riverine aquatic features in the vicinity of the Project (USFWS 2023; Appendix B). The NWI is based on coarse aerial mapping and does not involve ground-truthing. The national hydrography dataset shows Patterson Run and one other drainage crossing the AA from south to north. Patterson Run is an ephemeral stream system that runs parallel to Patterson Road adjacent to the AA, flows in a northerly direction, and eventually terminates approximately 2.3 miles northeast of the AA in agricultural land just north of the Delta Mendota Canal. Patterson Run is classified in the NWI as a freshwater emergent wetland (USFWS 2023). The second drainage is classified by the NWI as freshwater emergent wetland (USFWS 2023), however, there is no physical evidence of this drainage within the AA either on aerial imagery or when surveyed on the ground.

5.2 VEGETATION COMMUNITIES

Vegetation communities are based on descriptions provided in Manual of California Vegetation. One vegetation community occurs in the AA, Wild oats and annual brome grassland (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) (CNPS 2023). This community, often referred to as California annual grassland, is characterized by an herbaceous layer dominated by non-native grass species including wild oats (*Avena* spp.), bromes (*Bromus* spp.), and barleys (*Hordeum* spp.). The herbaceous layer is less than 1.2 meters in height and cover is open to continuous (CNPS 2023). Annual grassland covers the entire AA outside of the aquatic features (88.24 acres).

5.3 POTENTIAL WATERS OF THE UNITED STATES

A formal aquatic delineation was conducted on January 18, 2024. There is one seasonal channel (EPH-01; 0.37 acre, 846.07 linear feet), Patterson Run, within the AA where the BESS facility site connects to the gen-tie alignment, paralleling Patterson Pass Road (Figure 4). This seasonal channel flows southwest to northeast. The channel had moderate flow during the March 2023 and January 2024 surveys and was dry during the May and August 2023 surveys.

Action Area

Delineated Feature

EPH-01

0 250 500 Feet

(At original document size of 8.5x11)
1:7,000

N

Stantec

Project Location
Midway
Alameda County, CA

Prepared by KDLP on 2024-06-12
IR by SE on 2024-06-12

Client/Project
185706735

Potentia-Viridi Battery Energy Storage System
Biological Assessment

Figure No.
Figure 4

Title
Potential Waters of the United States within the Action Area

Notes

1. Coordinate System: NAD 1983 UTM Zone 10N

2. Data Sources: Esri Community Maps Contributors, San Joaquin County GIS/Planning, San Joaquin County Public Works, California State Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, CGIAR, USGS, Maxar, San Joaquin County GIS/Planning, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS,

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6.0 SPECIES ACCOUNTS

Three federally listed species, CTS, CRLF and San Joaquin kit fox were identified as having potential to occur within and adjacent to the AA. Each of these species is described below.

6.1 CALIFORNIA TIGER SALAMANDER

The central California distinct population segment (DPS) of CTS is federally listed as threatened. This species is a large, stocky, terrestrial salamander with a broad, rounded snout. Total body length of adults range from 6 to 9.5 inches and coloration consists of randomly occurring white or yellow spots on an all-black body (USFWS 2017a). Larvae coloration is variable, with a majority being pale and sometimes having dark grey spots.

6.1.1 Historical and Current Distribution

The CTS Central California DPS is restricted to disjunct populations that form a ring along the foothills of the Central Valley and Inner Coast Range from San Luis Obispo, Kern, and Tulare Counties in the south, to Sacramento and Yolo Counties in the north. The recovery priority number for the CTS Central California DPS is 9C, which indicates that the DPS faces a moderate degree of threat, has a high potential for recovery, and is in conflict with development projects, such as conversion to agriculture or urban development.

6.1.2 Habitat Requirements and Life History

This species is found in annual grassland, valley-foothill hardwood, and valley-foothill riparian habitats and breeds in vernal pools, ephemeral pools, stock ponds, and (infrequently) along streams and human-made water bodies if predatory fishes are absent. This species has an obligate biphasic life cycle where it utilizes both aquatic habitats as larvae and terrestrial habitats as adults. Although larvae develop in the ponds and wetlands where they hatch, once an individual undergoes metamorphosis, it will leave its natal pond and enters a burrow or other upland refugia, and then spend most its life underground, generally only returning to aquatic habitats to breed. Adult CTS engage in mass migrations during a few rainy nights per year, typically from November through April, although migrating adults have been observed as early as October and as late as May. During these rain events, adults will travel overland to breeding ponds at night to mate before returning to their underground burrows. Males typically arrive before the females and generally remain in the ponds longer than females (USFWS 2017a). This species has been documented to cover distances from 492 feet to 1.3 miles, traveling from breeding ponds to upland terrestrial habitat (Orloff 2011). On average, it is estimated that California tiger salamander migrate an average of 1,844 feet and could potentially migrate up to 1.5 miles each breeding season (Searcy and Shaffer 2011).

6.1.3 Occurrence in Relation to the Action Area

6.1.3.1 CNDDB

There are 209 CNDDB occurrences for CTS within a 9-quadrangle search of the AA (Figure 5). The nearest documented occurrence is approximately 1.6 miles southwest of the AA from 2012 (Occ. No. 1003), but there are numerous other records within 5 miles of the AA (CDFW 2024). The AA also occurs within the East Alameda County

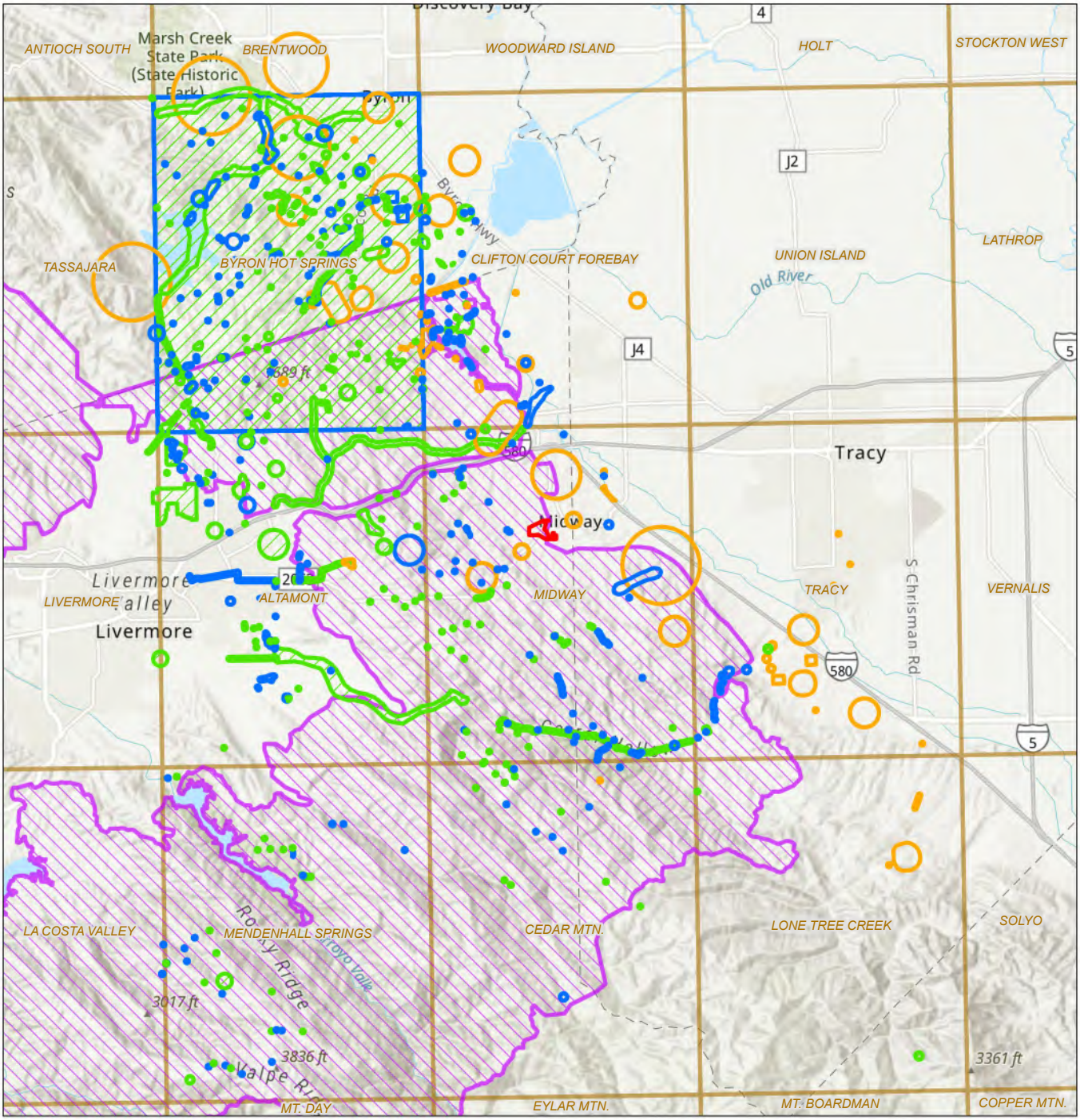
Conservation Strategy (EACCS) Conservation Zone 10 or designated as “CTS North” and is a high priority for the EACCS for protecting a substantial portion of potential breeding ponds within this area (ICF 2010).

6.1.3.2 Field Assessment

The habitat on the AA is suitable upland refuge and dispersal habitat for this species, consisting of grassland with small mammal burrows. Two nearby stock ponds provide suitable aquatic breeding habitat approximately 0.3 miles from the AA (Appendix B). No CTS were observed during the field surveys, but this species is extremely difficult to detect without focused surveys in accordance with USFWS and CDFW-sanctioned protocols (USFWS 2003).

6.1.4 Critical Habitat

There is no USFWS designated critical habitat for this species within the AA.



Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: California State Parks, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Esri, CGIAR, USGS, San Joaquin County GIS/Planning, California State Parks, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS, Esri, USGS

Action Area
USGS 7.5' Quadrangle

CNDDB Occurrences
- California red-legged frog *(Rana draytonii)*
- California tiger salamander - central California DPS *(Ambystoma californiense pop. 1)*
- San Joaquin kit fox *(Vulpes macrotis mutica)*

Critical Habitat
- California red-legged frog

0 1.5 3 Miles
(At original document size of 8.5x11)
1:250,000

N

Stantec

Project Location	Prepared by KDLP on 2024-06-12
Midway	IR by SE on 2024-06-12
Alameda County, CA	
Client/Project	185706735
Potentia-Viridi Battery Energy Storage System	
Biological Assessment	

Figure No.
Figure 5

Title
California Natural Diversity Database (CNDDB) Occurrences

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6.2 CALIFORNIA RED-LEGGED FROG

The CRLF is federally listed as threatened. This species is the largest native frog in California, ranging from 1.5 to 5.1 inches in length (USFWS 2022). Adult CRLF abdomen and hind legs are primarily red with this coloration extending to other parts of the body; however, adult coloration ranges between brown, gray, olive, and reddish with black flecks and larger dark blotches. They also have prominent dorsolateral folds, easily distinguishable from other frog species that occur in the same habitats. Larvae range from 0.3 to 3 inches in length and are typically brown and yellow with some darker spots (USFWS 2022).

6.2.1 Historical and Current Distribution

The historical range of CRLF extended from Riverside County to Mendocino County along the Coast Range; from Calaveras County to Butte County in the Sierra Nevada; and to Baja California, Mexico (USFWS 2017b). CRLF are still abundant within portions of the San Francisco Bay area (including Marin County) and the central coast (USFWS 2017b).

6.2.2 Habitat Requirements and Life History

The CRLF inhabits a variety of aquatic, upland, and riparian environments, including ephemeral and permanent ponds, seasonal wetlands, perennial creeks, intermittent streams, manmade aquatic features (e.g., stock ponds), riparian corridors, nonnative annual grasslands, and oak savannahs (USFWS 1996). Preferred breeding habitat consists of still or slow-moving water or deep-water pools where it deposits large egg masses, usually attached to submergent or emergent vegetation. Breeding typically occurs during winter and early spring (i.e., late November through April). Well-vegetated upland habitats in proximity of a riparian corridor may also provide sheltering habitat during the breeding season. During the nonbreeding season (i.e., generally from May through mid-November), CRLF utilize a variety of aquatic habitats including small pools in streams, springs, water traps and other perennial water bodies (Miller et al. 1996; Fellers and Kleeman 2007). During the dry summer months, CRLF seek refuge in small mammal burrows, areas with structural cover, and moist leaf litter commonly associated with adjacent riparian habitat to avoid desiccation (Rathbun et al. 1993; Jennings and Hayes 1994). CRLFs have been recorded to cover distances from 0.25 mile to more than 2 miles without apparent regard to topography, vegetation type, or riparian corridors (USFWS 2005; Tartarian 2008).

6.2.2.1 CNDDB

There are 212 CNDDB occurrences for CRLF within a 9-quadrangle search of the AA (Figure 5). The nearest documented occurrences are approximately 1.5 miles east, south, and west of the AA (Occ. Nos. 822 from 2001, 1079 from 2008, 1759 from 2012, and 44 from 1993); there are numerous other records within 5 miles of the AA (CDFW 2024). The AA also occurs within the EACCS Conservation Zone 10 or designated as “CRLF South” and is a high priority for the EACCS for protecting a substantial portion of potential breeding ponds within this area (ICF 2010).

6.2.2.2 Field Assessment

A protocol-level habitat assessment for CRLF was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the AA to identify potential aquatic breeding sites within dispersal distance of the AA. Three aquatic features were assessed for habitat suitability for CRLF: Patterson Run, a seasonal stream

paralleling Patterson Pass Road, and two stock ponds approximately 0.3 miles northwest (Pond 1) and west (Pond 2) of the AA (see Appendix B for the Biological Technical Report). Of these aquatic features, only Pond 2 was determined to provide high-quality breeding habitat for CRLF, consisting of a large, deep stock pond with perennial water and a large quantity of emergent vegetation (bulrush [*Schoenoplectus* sp.] along with alkali bulrush [*Bolboschoenus maritimus*]) and surrounded by grazed grassland. Patterson Run lacked large pools suitable for breeding, and Pond 1 lacked suitable emergent or marginal vegetation. No CRLF were observed during the field surveys or habitat assessment (see Appendix C for the CRLF Habitat Assessment).

6.2.3 Critical Habitat

The AA is located within USFWS designated critical habitat for CRLF (75FR12816 12959). The critical habitat extends beyond the AA to the north and southwest of the AA (USFWS 2024b), in areas of undeveloped or rural agricultural lands. Critical habitat for CRLF consists of four primary constituent elements (PCEs), which support different components of the species' life history, as last updated by USFWS in 2010 (75 FR 12816-12959):

1. Aquatic Breeding Habitat: Standing bodies of fresh water including natural and manmade (e.g., stock) ponds, slow-moving streams, pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in most years.

2. Aquatic Non-Breeding Habitat: Freshwater aquatic habitats that may not hold water long enough for the species to complete its aquatic life cycle, but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult CRLF. These may include breeding habitat as described above, as well as plunge pools within intermittent creeks, seeps, quiet water refugia within streams, and flowing springs.

3. Upland Habitat: Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to 1 mi (1.6 km), depending on surrounding landscape and dispersal barriers. Upland habitat may include grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance with structural features such as boulders, rocks and organic debris (e.g., downed trees, logs), small mammal burrows, or moist leaf litter.

4. Dispersal Habitat: Accessible upland or riparian habitat within and between occupied locations within a minimum of 1 mi (1.6 km) of each other and that support movement between such sites. Dispersal habitat includes various natural or moderately altered habitats (such as agricultural fields) that do not contain dispersal barriers. Dispersal habitat does not include moderate- to high-density urban or industrial developments, nor does it include large (>50 acres) lakes or reservoirs.

PCEs 3 and 4 (upland and dispersal habitat) are present on the AA, and PCEs 1 and 2 (aquatic breeding and non-breeding habitat) are present within dispersal distance (1 mile) of the AA.

6.3 SAN JOAQUIN KIT FOX

San Joaquin kit fox is federally listed as endangered. This species is a small, tan fox with a bushy black-tipped tail. They are the smallest foxes in North America, with an average body length of 20 inches and a weight of about 5 pounds. It has a narrow nose and a small, slim body. The foot pad of kit foxes are small by comparison with other

canids. The fox is specially adapted for its desert habitat because it's large, close-set ears help dissipate heat, keeping it cool in the hot desert (USFWS 2024c).

6.3.1 Historical and Current Distribution

Currently, they occur in some areas of suitable habitat within the San Joaquin Valley and in the surrounding foothills of the Coast Range, Sierra Nevada, and Tehachapi Mountains from Kern County north to Contra Costa, Alameda, and San Joaquin Counties. Historically, San Joaquin kit fox were believed to inhabit the area from Contra Costa and Jan Joaquin Counties in the north to Kern County in the south (USFWS 1998).

6.3.2 Habitat Requirements and Life History

This species occurs in a variety of habitats, including grasslands; scrublands; vernal pool areas; alkali meadows and playas; and an agricultural matrix of row crops, irrigated pastures, orchards, vineyards, and grazed annual grasslands. They prefer habitats with loose textured soils that are suitable for digging, but they occur on virtually every soil type. Dens are generally located in open areas with grass and/or scattered brush, and seldom occur in areas with thick brush. They feed primarily on small mammals, including California ground squirrels, rabbits, mice, kangaroo rats, and have been known to prey on ground-nesting birds, reptiles, and insects (USFWS 1998).

6.3.3 Occurrence in Relation to the Action Area

6.3.3.1 CNDDB

There are 44 CNDDB occurrences for San Joaquin kit fox within a 9-quadrangle search of the AA (Figure 5). The nearest documented occurrence is approximately 0.3 miles southwest of the AA, a historical record from 1984 (Occ. No. 6); multiple other historical records are within 5 miles of the AA, all prior to 1992 (CDFW 2024). There is moderate-quality grassland present on the site. The AA also falls within the EACCS Conservation Zone 10 for SJKF or "SJKF East." EACCS indicates this area likely supports connectivity through the Altamont Hills for SJKF but connectivity across I-580 has been compromised by infrastructure development (ICF 2010).

6.3.3.2 Field Assessment

Focused burrow surveys were conducted on May 16 and August 2, 2023, and January 18, April 15, May 3, and May 24, 2024, to identify a variety of animal burrows within the updated AA boundaries, including for San Joaquin kit fox. Several large burrow tailings were observed on the eastern side of the AA along Patterson Pass Road, evidence of suitable soils for burrowing. Additional burrow surveys were conducted April 15, May 3, and May 24, 2024, as part of a protocol-level western burrowing survey. All burrows onsite were determined to be either ground squirrel or pocket gopher (*Thomomys bottae*) and were not suitable for San Joaquin kit fox. Further, no sign of San Joaquin kit fox has been documented during any site survey conducted in 2023 or 2024.

6.3.4 Critical Habitat

The AA does not occur within or adjacent to USFWS designated critical habitat for this species.

7.0 EFFECTS OF THE PROPOSED ACTION

This section describes the effects of the Proposed Action on focused species.

As defined under the ESA, direct effects are caused by the proposed action and occur at the time of the proposed action. Activities proposed as part of the proposed action with the potential to have permanent and temporary impacts that may result in direct effects to focused species include road widening, earthwork, culvert extensions, drainage modifications, vegetation removal, utility relocation and development. An evaluation of potential indirect and direct impacts to California tiger salamander, California red-legged frog and San Joaquin kit fox are provided below. Because the study area is within the EACCS; therefore, avoidance, minimization, and mitigation measures described below for each species are directly from the EACCS and the Programmatic Biological Opinion for the EACCS (USFWS 2012).

7.1 PROPOSED IMPACTS TO SPECIES AND CRITICAL HABITAT

7.1.1 California Tiger Salamander and California Red-legged Frog

CTS is a federally threatened species and CRLF are federally threatened. Both species have a potential to occur on the AA. The habitat on the AA is suitable upland habitat for these species, consisting of abundant grassland with small mammal burrows to provide refuge. Two nearby stock ponds provide suitable aquatic breeding habitat for CTS approximately 0.3 miles from the AA. One of these ponds is also high-quality breeding habitat for CRLF. No CTS were observed during the field surveys, although there are known occurrences for this species within 5 miles, and the aquatic habitats are within dispersal distance of the AA.

The Project could result in direct or indirect impacts on CTS and CRLF. Direct impacts include mortality or injury from ground-disturbing activities, construction equipment, grading, or other construction activities; and permanent loss of potential upland and dispersal habitat within the construction footprint. These species are known to use burrows for refuge, which may be crushed by the weight of construction equipment, building supplies, or grading on the surface, even if the burrow is of sufficient depth to avoid direct excavation. Indirect impacts include disturbance due to increased human activity and impacts to water quality from construction activities.

7.1.1.1 Avoidance and Minimization Measures

The following avoidance and minimization measures will be implemented following EACCS.

General

GEN - 01 Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and Avoidance and Minimization Measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.

GEN - 02 Environmental tailboard trainings will take place on an as needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of the covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors,

Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.

GEN - 03 Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements, AMMs.

GEN - 04 The following will not be allowed at or near work sites for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).

GEN - 05 Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.

GEN - 06 Off - road vehicle travel will be minimized.

GEN - 07 Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land cover types, or during off road travel.

GEN - 08 Vehicles or equipment will not be refueled within 100 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

GEN - 09 Vehicles shall be washed only at approved areas. No washing of vehicles shall occur at job sites.

GEN - 10 To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed free straw.

GEN - 11 Pipes, culverts, and similar materials greater than four inches in diameter, will be stored so as to prevent covered wildlife species from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.

GEN - 12 Erosion control measures will be implemented to reduce sedimentation in wetland habitat occupied by covered animal and plant species when activities are the source of potential erosion problems. Plastic monofilament netting (erosion control matting) or similar material containing netting shall not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

GEN - 13 Stockpiling of material will occur such that direct effects to covered species are avoided. Stockpiling of material in riparian areas will occur outside of the top of bank, and preferably outside of the outer riparian dripline and will not exceed 30 days.

GEN - 14 Grading will be restricted to the minimum area necessary.

GEN - 15 Prior to ground disturbing activities in sensitive habitats, project construction boundaries and access areas will be flagged and temporarily fenced during construction to reduce the potential for vehicles and equipment to stray into adjacent habitats.

GEN - 16 Significant earth moving - activities will not be conducted in riparian areas within 24 hours of predicted storms or after major storms (defined as 1 - inch of rain or more).

GEN - 17 Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure no covered species are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.

Amphibians: CTS, CRLF

AMPH-2. Habitat: Riparian habitat and grasslands within 2-miles of aquatic habitat

- A qualified biologist will conduct preconstruction surveys prior to activities define a time for the surveys (before groundbreaking). If individuals are found, work will not begin until they are moved out of the construction zone to a USFWS/CDFW approved relocation site.
- A Service - approved biologist should be present for initial ground disturbing activities.
- If the work site is within the typical dispersal distance (contact USFWS/CDFW for latest research on this distance for species of interest) of potential breeding habitat, barrier fencing will be constructed around the worksite to prevent amphibians from entering the work area. Barrier fencing will be removed within 72 hours of completion of work.
- No monofilament plastic will be used for erosion control.
- Construction personnel will inspect open trenches in the morning and evening for trapped amphibians.
- A qualified biologist possessing a valid ESA Section 10(a)(1)(A) permit or Service approved under an active biological opinion, will be contracted to trap and to move amphibians to nearby suitable habitat if amphibians are found inside fenced area.
- Work will be avoided within suitable habitat from October 15 (or the first measurable fall rain of 1" or greater, to May 1.

7.1.1.2 Compensatory Mitigation

With the implementation of the above avoidance and minimization measures, compensatory mitigation proposed is associated with the preservation of upland and dispersal habitat for these species. To compensate for direct impacts on upland habitat for CTS and CRLF, the Applicant will purchase the appropriate mitigation credits from a USFWS-approved mitigation bank or another site to be approved by the USFWS. Currently, the Applicant anticipates purchasing mitigation credits from Vieira Ranch Conservation Bank, located within the same Conservation Zone as the AA (Conservation Zone 10). The EACCS standardized mitigation ratios for CTS and CRLF are 3:1 (three acres preserved for each acre removed) (ICF 2010). However, using the Mitigation Score Sheets in Appendix E of the EACCS, the mitigation ratios are adjusted downward because the mitigation bank provides higher quality habitat for CTS and CRLF than the AA, including suitable breeding habitat (see Appendix D for the Mitigation Score Sheets). As stated in the Programmatic Biological Opinion for the EACCS, the impact site score is divided by the mitigation site score and then multiplied by the standard mitigation ratio to determine the adjusted ratio:

(Impact Score ÷ Mitigation Score) x Standard Mitigation Ratio = Adjusted Mitigation Ratio

Therefore, Permanent impacts will be mitigated at a minimum of 1.9:1 for CTS and 2.3:1 for CRLF. Final mitigation ratios will be based on consultation with USFWS.

7.1.1.3 Cumulative Effects

Implementation of avoidance and minimization measures mentioned above would ensure that potential adverse effects to CTS and CRLF are minimized. Potential Project effects to these species would be direct temporary and permanent effects associated with dispersal and upland habitat only. Because the Project does not have any temporary or permanent effects to breeding habitat for these species, along with the implementation of avoidance and minimization measures, the Project is not expected to have a measurable effect on the local and regional population of these species and is therefore not cumulatively considerable.

7.1.2 San Joaquin Kit Fox

San Joaquin kit fox is a federally endangered with moderate potential to occur on the AA. Burrow surveys were conducted April 15, May 3, and May 24, 2024. All burrows onsite were determined to be either ground squirrel or pocket gopher (*Thomomys bottae*) and were not suitable for San Joaquin kit fox. Further, no sign of SJKF has been documented during any site survey conducted in 2023 or 2024.

7.1.2.1 Avoidance and Minimization Measures

Potential direct and indirect effects could occur during construction activities as result from noise and vibration. In addition to the general measures listed above, the following species avoidance and minimization measures will be implemented during construction:

MAMM-1. Habitat: Grassland, generally with ground squirrel burrows.

- If potential dens are present, their disturbance and destruction will be avoided.
- If potential dens are located within the proposed work area and cannot be avoided during construction, qualified biologist will determine if the dens are occupied or were recently occupied using methodology coordinated with the USFWS and CDFW. If unoccupied, the qualified biologist will collapse these dens by hand in accordance with USFWS procedures (USFWS 2011).
- Exclusion zones will be implemented following USFWS procedures (U.S. Fish and Wildlife Service 1999) or the latest USFWS procedures available at the time. The radius of these zones will follow current standards or will be as follows: Potential Den 50 feet; Known Den 100 feet; Natal or Pupping Den—to be determined on a case by case basis in coordination with USFWS and CDFW.
- Pipes will be capped, and trenches will contain exit ramps to avoid direct mortality while construction areas is active.

7.1.2.2 Compensatory Mitigation

With the implementation of the above avoidance and minimization measures, compensatory mitigation proposed is associated with the preservation of dispersal and migration habitat for this species. To compensate for direct impacts

on dispersal and migration habitat for San Joaquin kit fox, the Applicant will purchase the appropriate mitigation credits from a USFWS-approved mitigation bank (anticipated to be Vieira Ranch Conservation Bank). The EACCS standardized mitigation ratios for San Joaquin kit fox are 3:1 (three acres preserved for each acre removed) (ICF 2010). However, using the Mitigation Score Sheets in Appendix E of the EACCS, the mitigation ratios are adjusted downward because the mitigation bank provides higher quality habitat for San Joaquin kit fox than the AA (see Appendix D for the Mitigation Score Sheets). Using the same mitigation formula stated in Section 7.1.1.2, permanent impacts will be mitigated at a minimum of 2.5:1 for San Joaquin kit fox. Final mitigation ratios will be based on consultation with USFWS.

7.1.2.3 Cumulative Effects

Implementation of avoidance and minimization measures mentioned above would ensure that potential adverse effects to San Joaquin kit fox are minimized. Because the Project impacts to this species' habitat are not anticipated to have a significant impact on the species or jeopardize its continued existence, it is not expected to have a measurable effect on the local and regional population of this species and is therefore not cumulatively considerable.

8.0 CONCLUSIONS AND DETERMINATION

This BA represents an assessment of the effects of the Proposed Action on the federally listed CTS, CRLF and San Joaquin kit fox in accordance with Section 7 of ESA of 1973, as amended. Based on the information presented in this BA, the following conclusions and effect determinations were made for these species below.

8.1 CALIFORNIA TIGER SALAMANDER

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and upland habitat for CTS. The Project will have temporary and permanent impacts to potential dispersal and upland habitat; however, there are no permanent or temporary impacts to aquatic breeding habitat. Therefore, the Project **may affect, likely to adversely affect California tiger salamander**. Implementation of avoidance and minimization measures described under Section 7.1.1 would reduce any direct and indirect effects on potential CTS dispersal and upland habitat. Additionally, the Applicant would compensate for any permanent dispersal and upland habitat loss as described under 7.1.1.2.

The Project does not occur within designated critical habitat for CTS; therefore, the Project will have **no effect** on critical habitat for this species.

8.2 CALIFORNIA RED-LEGGED FROG

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and upland habitat for CRLF. The Project will have temporary and permanent impacts to potential dispersal and upland habitat; however, there are no permanent or temporary impacts to aquatic breeding habitat. Therefore, the Project **may affect, likely to adversely affect California red-legged frog**. Implementation of avoidance and minimization measures described under Section 7.1.1 would reduce any direct and indirect effects on potential CRLF dispersal and upland habitat. Additionally, the Applicant would compensate for any permanent dispersal and upland habitat loss as described under 7.1.1.2.

The Project will have temporary and permanent impacts to designated critical habitat for CRLF; therefore, the Project **may affect, likely to adversely affect California red-legged frog** critical habitat.

8.3 SAN JOAQUIN KIT FOX

The AA occurs within the range of the species and may directly and indirectly impact potential dispersal and migration habitat for San Joaquin kit fox. The Project will have temporary and permanent impacts to potential dispersal and migration habitat; however, these impacts are considered minimal as the AA is within the northern limits of their dispersal or migration boundary. There are no permanent or temporary impacts to potential breeding or denning habitat within the AA. Therefore, the Project **may affect, not likely to adversely affect San Joaquin kit fox**. Implementation of avoidance and minimization measures described under Section 7.1.2.1 would reduce any direct and indirect effects on potential San Joaquin kit fox dispersal or migration habitat. Additionally, the Applicant would compensate for any permanent dispersal and migration habitat loss as described under 7.1.2.2.

The Project does not occur within designated critical habitat for San Joaquin kit fox; therefore, the Project will have **no effect** on critical habitat for this species.

9.0 REFERENCES

Avian Power Line Interaction Committee. 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C., and Sacramento, CA. Available online at https://www.aplic.org/uploads/files/2643/SuggestedPractices2006(LR-2).pdf. Accessed May 2024.

California Department of Fish and Wildlife (CDFW). 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. California Natural Resources Agency Department of Fish and Wildlife.

CDFW. 2024. California natural diversity database - RareFind 5 for commercial subscribers. Available online at https://nrm.dfg.ca.gov/cnddb. Last accessed May 2024.

California Native Plant Society (CNPS). 2001. CNPS Botanical Survey Guidelines. Revised June 2, 2001. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf. Accessed August 2023.

CNPS. 2023. A Manual of California Vegetation, Online Edition. Sacramento, California: CNPS. https://vegetation.cnps.org. Accessed August 2023.

CNPS. 2024. Inventory of rare and endangered plants of California. Available online at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi. Last accessed January 2024.

California Stormwater Quality Association. 2019. Construction Best Management Practices Handbook. https://www.casqa.org/resources/bmp-handbooks/construction-bmp/2019-construction-bmp-handbook. Accessed May 2024.

Dudek. 2024. Biological Technical Report for the Potentia-Viridi Battery Energy Storage System Facility Project, Alameda County, California. Prepared for Levy Alameda LLC by Dudek. Auburn, California. February 2024.

Fellers, G. M. and P. M. Kleeman. 2007. California red-legged frog (*Rana draytonii*) movement and habitat use: implications for conservation. Journal of Herpetology, 41(2):276-286.

Google Earth Pro. 2024. Version 7.3.6.9796. Mountain View, CA: Google Earth Mapping Service. Accessed May 2024.

ICF. 2010. East Alameda County Conservation Strategy, Final Draft. Available online: https://www.eastalco-conservation.org/documents.html. Accessed May 2024.

Jennings, M. R. and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. Final report submitted to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA. Contract Number 8023.

Jepson Flora Project (eds.) 2023. Jepson eFlora. Available online at http://ucjeps.berkeley.edu/eflora/. Last accessed August 2023.

Miller, K. J., A. Willy, S. Larsen, and S. Morey. 1996. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the California Red-legged Frog. Federal Register: Vol. 61, No. 101.

Orloff, S.G. 2011. Movement patterns and migration distances in an upland population of California tiger salamander (*Ambystoma californiense*). Herpetological Conservation and Biology 6(2): pp. 266-276.

Rathbun, G. B., M. R. Jennings, T. G. Murphey, and N. R. Siepel. 1993. Status and ecology of sensitive aquatic vertebrates in lower San Simeon and Pico Creeks, San Luis Obispo County, CA. National Ecology Research Center, Piedras Blancas Research Station, San Simeon, CA. Cooperative Agreement 14-16-009-91-1909.

Searcy, C.A. and H.B. Shaffer. 2011. Determining the migration distance of a vagile vernal pool specialist: How much land is required for conservation of California tiger salamanders? Pages 73-87 In: D.G. Alexander and R.A. Schlising (Editors), Research and recovery in vernal pool landscapes. Studies from the Herbarium, Number 16. California State University, Chico, California.

Tartarian, P. J. 2008. Movement Patterns of California Red-legged Frogs (*Rana draytonii*) in an Inland California Environment. Herpetological Conservation and Biology 3(2): 155-169.

U.S. Department of Agriculture (USDA). 2023a. “California.” State PLANTS Checklist. https://plants.usda.gov/home/stateSearch. Accessed August 2023.

USDA. 2023b. List of Hydric Soils. USDA Natural Resources Conservation Service, Soil Survey Staff. https://www.nrcs.usda.gov/conservation-basics/natural-resourceconcerns/ soil/hydric-soils. Accessed August 2023.

USDA. 2024. Soil Survey Geographic Database: Web Soil Survey [GIS online viewer]. USDA Natural Resources Conservation Service, Soil Survey Staff. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed January 2024.

U.S. Fish and Wildlife Service (USFWS). 1996. Endangered and threatened wildlife and plants; determination of threatened status for the California red-legged frog. Final rule. Federal Register, Vol. 61 No. 101: 25813-25833. May 23, 1996.

USFWS. 1998. Recovery plan for the upland species of the San Joaquin Valley, California. September 30, 1998.

USFWS. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. January 2000. https://fws.gov/media/guidelines-conducting-and-reporting-botanical-inventories-federally-listedproposed-and. Accessed August 2023.

USFWS. 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander. October 2003. U.S. Fish and Wildlife Service, Sacramento Office.

USFWS. 2005. Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog. Accessed at <http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/crf_survey_guidance_aug2005.pdf>. Last accessed on December 16, 2015.

USFWS. 2011. U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. January 2011. https://fws.gov/media/standardized-recommendations-protection-endangered-san-joaquin-kit-fox-prioror-during-ground. Accessed August 2023.

USFWS. 2012. Programmatic Biological Opinion for the East Alameda County Conservation Strategy. Sacramento Fish and Wildlife Office. 08ESMFOO-2012-F-0092-1.

USFWS. 2017a. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 69pp.

USFWS. 2017b. California Red-Legged Frog – Amphibians-Reptiles Endangered Species Accounts. Sacramento Fish and Wildlife Office. Last updated: December 1, 2017. Available at: https://www.fws.gov/sacramento/es_species/Accounts.

USFWS 2022. California Red-Legged Frog (*Rana draytonii*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office. Sacramento, California. December 2022. https://ecos.fws.gov/ecp/species/2891. Accessed May 2024.

USFWS. 2023. “National Wetlands Inventory.” U.S. Department of the Interior, USFWS. http://www.fws.gov/wetlands/. Accessed August 2023.

USFWS. 2024a. Trust Resources Report. Information for Planning and Consultation (IPaC). https://ecos.fws.gov/ipac/ Accessed May 2024.

USFWS. 2024b. Critical Habitat for Threatened & Endangered Species. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed May 2024.

USFWS. 2024c. San Joaquin Kit Fox. USFWS Species Profiles. https://www.fws.gov/species/san-joaquin-kit-fox-vulpes-macrotis-mutica. Accessed May 2024.

U.S. Geological Survey. 2023. “The National Map Viewer” [online GIS viewer]. National Hydrography GIS Data. https://www.usgs.gov/tools/national-map-viewer. Accessed August 2023.

Western Regional Climate Center. 2023. “Historical Climate Information: Tracy Pumping Plant, California (049001).” https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9001. Accessed August 2023.

Appendix A CNDDB, CNPS, AND USFWS SPECIES LIST

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Byron Hot Springs (3712176) OR Clifton Court Forebay (3712175) OR Union Island (3712174) OR Altamont (3712166) OR Midway (3712165) OR Tracy (3712164) OR Mendenhall Springs (3712156) OR Cedar Mtn. (3712155) OR Lone Tree Creek (3712154))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Allium sharsmithiae Sharsmith's onion	PMLIL02310	None	None	G2	S2	1B.3
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Amsinckia grandiflora large-flowered fiddleneck	PDBOR01050	Endangered	Endangered	G1	S1	1B.1
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos manzanita ssp. laevigata Contra Costa manzanita	PDERI04273	None	None	G5T2	S2	1B.2
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S2	SSC
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Blepharizonia plumosa big tarplant	PDAST1C011	None	None	G1G2	S1S2	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Branchinecta longiantenna longhorn fairy shrimp	ICBRA03020	Endangered	None	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Calochortus pulchellus Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
Caulanthus lemmonii Lemmon's jewelflower	PDBRA0M0E0	None	None	G3	S3	1B.2
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chloropyron molle ssp. hispidum hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
Chloropyron palmatum palmate-bracted bird's-beak	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium fontinale var. campylon Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Deinandra bacigalupii Livermore tarplant	PDAST4R0V0	None	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eryngium spinosepalum spiny-sepaled button-celery	PDAPI0Z0Y0	None	None	G2	S2	1B.2
Eschscholzia rhombipetala diamond-petaled California poppy	PDPAP0A0D0	None	None	G1	S1	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Fritillaria falcata talus fritillary	PMLIL0V070	None	None	G2	S2	1B.2
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S2	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Hesperolinon breweri Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Hygrotus curvipes curved-foot hygrotus diving beetle	IICOL38030	None	None	G2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hypomesus transpacificus Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Leptosyne hamiltonii Mt. Hamilton coreopsis	PDAST2L0C0	None	None	G2	S2	1B.2
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G4G5	S2	2B.1
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Madia radiata showy golden madia	PDAST650E0	None	None	G3	S3	1B.1
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Masticophis flagellum ruddocki San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S3	SSC
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Melospiza melodia pop. 1 song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
Navarretia nigelliformis ssp. radians shining navarretia	PDPLM0C0J2	None	None	G4T2	S2	1B.2
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Phacelia phacelioides Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G2	S2	1B.2
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
Rana boylii pop. 4 foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Ravenella exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Spea hammondii western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
Spergularia macrotheca var. longistyla long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Sylvilagus bachmani riparius riparian brush rabbit	AMAEB01021	Endangered	Endangered	G5T1	S2	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thaleichthys pacificus eulachon	AFCHB04010	Threatened	None	G5	S1	
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S3	

Record Count: 93

CNPS Rare Plant Inventory

Search Results

61 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3712154:3712164:3712165:3712155:3712156:3712166:3712174:3712175:3712176**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Yes	1974-01-01	 © 2005 Barry Breckling
Allium sharsmithiae	Sharsmith's onion	Alliaceae	perennial bulbiferous herb	Mar-May	None	None	G2	S2	1B.3	Yes	1980-01-01	 © 2017 John Doyen
Amsinckia grandiflora	large-flowered fiddleneck	Boraginaceae	annual herb	(Mar)Apr-May	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © 2015 Zoya Akulova
Androsace elongata ssp. *acuta*	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01	 © 2008 Aaron Schusteff
Arctostaphylos manzanita ssp. *laevigata*	Contra Costa manzanita	Ericaceae	perennial evergreen shrub	Jan-Mar(Apr)	None	None	G5T2	S2	1B.2	Yes	1984-01-01	 © 2019 Susan McDougall
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	Pteridaceae	perennial rhizomatous herb	Jan-Dec	None	None	G3	S3	4.2	Yes	1994-01-01	No Photo Available
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	Yes	1994-01-01	No Photo Available

Atriplex cordulata var. *cordulata*	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G3T2	S2	1B.2	Yes	1988-01-01	 © 1994 Robert E. Preston, Ph.D.
Atriplex coronata var. *coronata*	crownscale	Chenopodiaceae	annual herb	Mar-Oct	None	None	G4T3	S3	4.2	Yes	1994-01-01	 © 1994 Robert E. Preston, Ph.D.
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1994-01-01	 © 2009 Zoya Akulova
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1	Yes	1994-01-01	 © 2000 Robert E. Preston, Ph.D.
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	None	None	G1G2	S1S2	1B.1	Yes	1994-01-01	No Photo Available
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Caulanthus lemmonii	Lemmon's jewelflower	Brassicaceae	annual herb	Feb-May	None	None	G3	S3	1B.2	Yes	2001-01-01	No Photo Available
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
Chlorogalum pomeridianum var. *minus*	dwarf soaproot	Agavaceae	perennial bulbiferous herb	May-Aug	None	None	G5T3	S3	1B.2	Yes	1994-01-01	 © 1997 Dean Wm Taylor

Chloropyron molle ssp. *hispidum*	hispid salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	None	None	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Cirsium fontinale var. *campylon*	Mt. Hamilton thistle	Asteraceae	perennial herb	(Feb)Apr-Oct	None	None	G2T2	S2	1B.2	Yes	1974-01-01	No Photo Available
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	None	None	G4	S4	4.2	Yes	1974-01-01	No Photo Available
Clarkia concinna ssp. *automixa*	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	None	None	G5?T3	S3	4.3	Yes	1994-01-01	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Deinandra bacigalupii	Livermore tarplant	Asteraceae	annual herb	Jun-Oct	None	CE	G1	S1	1B.1	Yes	2001-01-01	No Photo Available
Delphinium californicum ssp. *interius*	Hospital Canyon larkspur	Ranunculaceae	perennial herb	Apr-Jun	None	None	G3T3	S3	1B.2	Yes	1984-01-01	No Photo Available
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2?	1B.2	Yes	1988-01-01	No Photo Available
Eriogonum umbellatum var. *bahiiforme*	bay buckwheat	Polygonaceae	perennial herb	Jul-Sep	None	None	G5T3	S3	4.2	Yes	2001-01-01	No Photo Available
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1980-01-01	No Photo Available
Eschscholzia rhombipetala	diamond-petaled California poppy	Papaveraceae	annual herb	Mar-Apr	None	None	G1	S1	1B.1	Yes	1980-01-01	No Photo Available
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G2	S2	1B.2	Yes	1988-01-01	No Photo Available
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff

Fritillaria falcata	talus fritillary	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2013 Aaron Schusteff
Galium andrewsii ssp. *gatense*	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	Apr-Jul	None	None	G5T3	S3	4.2	Yes	1994-01-01	 © 2021 Steve Matson
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2013 Christopher Bronny
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
Hesperolinon breweri	Brewer's western flax	Linaceae	annual herb	May-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2014 Neal Kramer
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	None	None	G2?	S2?	1B.1	Yes	2001-01-01	 © 2004 Janell Hillman
Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	Feb-May	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2009 Zoya Akulova
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game

Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2010 Aaron Schusteff
Leptosyne hamiltonii	Mt. Hamilton coreopsis	Asteraceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©2012 Aaron Schusteff
Lessingia tenuis	spring lessingia	Asteraceae	annual herb	May-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2020 Keir Morse
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	Yes	1974-01-01	No Photo Available
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	None	None	G4G5	S2	2B.1		1994-01-01	 © 2020 Richard Sage
Madia radiata	showy golden madia	Asteraceae	annual herb	Mar-May	None	None	G3	S3	1B.1	Yes	1988-01-01	No Photo Available
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial deciduous shrub	(Apr)May-Sep(Oct)	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2017 Keir Morse
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	None	None	G3G4	S3S4	3.2	Yes	1974-01-01	 © 2008 Aaron Arthur
Microseris sylvatica	sylvan microseris	Asteraceae	perennial herb	Mar-Jun	None	None	G4	S4	4.2	Yes	2001-01-01	No Photo Available
Myosurus minimus ssp. *apus*	little mousetail	Ranunculaceae	annual herb	Mar-Jun	None	None	G5T2Q	S2	3.1		1980-01-01	No Photo Available
Navarretia nigelliformis ssp. *radians*	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	None	None	G4T2	S2	1B.2	Yes	1994-01-01	No Photo Available
Phacelia phacelioides	Mt. Diablo phacelia	Hydrophyllaceae	annual herb	Apr-May	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©2019 Steve Matson

Piperia michaelii	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	None	None	G3	S3	4.2	Yes	1984-01-01	No Photo Available
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb	Mar-May	None	None	GX	SX	1A	Yes	1974-01-01	No Photo Available
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2		2015-10-15	No Photo Available
Ravenella exigua	chaparral harebell	Campanulaceae	annual herb	May-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	None	None	G3	S2	2B.2		1994-01-01	No Photo Available
Spergularia macrotheca var. *longistyla*	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May	None	None	G5T2	S2	1B.2	Yes	2017-06-16	No Photo Available
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	 © 2005 Dean Wm Taylor
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	None	None	G1	S1	1B.1	Yes	1974-01-01	No Photo Available

Showing 1 to 61 of 61 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 24 January 2024].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: 05/22/2024 18:35:35 UTC
Project Code: 2024-0094382
Project Name: Potentia-Viridi Battery Energy Storage System Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0094382
Project Name: Potentia-Viridi Battery Energy Storage System Project
Project Type: Power Gen - Other
Project Description: The project proposes to construct, operate, and eventually repower or decommission the 400 megawatt (MW) Battery Energy Storage System on approximately 85 acres in eastern Alameda County.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.7110833,-121.574586204687,14z

Counties: Alameda County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 13 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

BIRDS

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

REPTILES

NAME	STATUS
Alameda Whipsnake (=striped Racer) *Masticophis lateralis euryxanthus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5524	Threatened
Northwestern Pond Turtle *Actinemys marmorata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

FLOWERING PLANTS

NAME	STATUS
Large-flowered Fiddleneck *Amsinckia grandiflora* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5558	Endangered
Lassics Lupine *Lupinus constancei* Population: There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7976	Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Red-legged Frog *Rana draytonii* https://ecos.fws.gov/ecp/species/2891#crithab	Final

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Scott Elder
Address:	2999 Oak Road
Address Line 2:	Suite 800
City:	Walnut Creek
State:	CA
Zip:	94597
Email	scott.elder@stantec.com
Phone:	9256274590

Appendix B BIOLOGICAL RESOURCES TECHNICAL REPORT

DUDEK
1630 SAN PABLO AVENUE, SUITE 300
OAKLAND, CALIFORNIA 94612
T 510.601.2500 F 510.601.2501

June 7, 2024 13584.07

Lauren McLeod
Levy Alameda, LLC
155 Wellington Street West, Suite 2930
Toronto, Ontario M5V 3H1, Canada

Subject: **Federally Regulated Biological Resources Constraints Analysis for the Potentia-Viridi Battery Energy Storage System Project, Alameda County, California**

Dear Lauren McLeod:

The purpose of this Federally Regulated Biological Resources Constraints Analysis letter report (report) is to provide existing conditions and background for the proposed Potentia-Viridi Battery Energy Storage System (BESS) Project (Project) to assess potential presence of resources regulated by federal agencies. This report describes the existing conditions and biological resources within the Project Study Area (PSA). As part of the report, Dudek biologists conducted a desktop literature review and database search specific to biological resources and performed biological field surveys to identify and characterize resources within the PSA, with particular focus on the potential for occurrence of federally regulated resources such as federally listed plant and wildlife species or their critical habitat, as well as potential waters of the U.S.

Details pertaining to the PSA are provided below:

- **County:** Alameda
- **Public Land Survey System:** Section 31; Township 2S; Range 4E
- **U.S. Geological Survey (USGS) 7.5-Minute Quadrangle**: Midway
- **Latitude, Longitude (decimal degrees):** 37.710926°, -121.575397°
- **APN:** 99b-7890-2-4 (BESS facility, 67.58 acres); 99B-7890-2-6, 99B-7885-12 (gen-tie alignment, 20.44 acres including buffer)
- **Elevation Range (feet):** 383 to 523 feet above mean sea level (amsl)
- **PSA:** 88.51 acres

1 Existing Conditions

1.1 Regional Land Use Setting

The PSA is currently undeveloped and according to historic aerial imagery little has changed since the 1980s (Google Earth Pro 2023). The PG&E Tesla substation is directly east, along the western project boundary there are

transmission lines running northeast to southwest, Patterson Pass Road along the eastern boundary, a railroad line to the south, and a gravel access road to the north. The site and surrounding land have been used for cattle grazing although the site is not currently being grazed. The nearest city is Tracy, approximately 8 miles to the east.

1.2 Climate and Rainfall

The site is located in Mediterranean climate where annual temperatures range from 38.3°F to 92.6°F (WRCC 2023). According to the Tracy Pumping Plant (049001) Weather Station Gauge, yearly precipitation averages 12.03 inches, with the highest average rainfall recorded in January (2.54 inches) (WRCC 2023). The past winter season has had higher than average rainfall.

1.3 Soil and Terrain

The Project site is relatively flat, with an approximate elevation of 403 to 536 feet above mean sea level. According to the Natural Resources Conservation Service (US Department of Agriculture [USDA] 2023a), three soil types are present: Linne clay loam, 3 to 15 percent slopes; Linne clay loam, 15 to 30 percent slopes, MLRA 15; Rincon clay loam, 0 to 3 percent slopes. The Line series consists of moderately deep, well drained soils that formed in material from soft shale and sandstone. The Rincon series consists of deep, well drained soils that formed in alluvium from sedimentary rock. None of the three soil types mapped on site are included on the USDA list of hydric soils (USDA 2023b), which are commonly associated with wetlands or other waters.

1.4 Hydrology and Watershed

The Project site occurs within the San Joaquin Delta hydrologic unit (Hydrological Unit Code HUC-8 18040003). The Project occurs within the North Diablo Range of the Alameda Creek Watershed (USGS 2023). According to the USFWS National Wetlands Inventory (NWI), there are several freshwater ponds, freshwater wetlands, and riverine aquatic features in the vicinity of the Project (USFWS 2023). The NWI is based on coarse aerial mapping and does not involve ground-truthing. The national hydrography dataset shows Patterson Run and one other drainage crossing the PSA from south to north. Patterson Run is a seasonal stream system that runs parallel to Patterson Road adjacent to the PSA. The second drainage is classified by the NWI as freshwater emergent wetland (USFWS 2023), however, there is no physical evidence of this drainage within the PSA either on aerial imagery or when surveyed on the ground.

2 Methods

2.1 Database Searches

Prior to conducting the field survey, Dudek searched pertinent online special-status species occurrence databases in January 2023. This review included the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool,1 California Department of Fish and Wildlife (CDFW) California Natural Diversity

[1] https://ipac.ecosphere.fws.gov/

Database (CNDDB), and California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants. The area for the IPaC Trust Resource Report was based on the site boundary. The CNDDB and CNPS databases were queried for the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles containing and immediately surrounding the site (Byron Hot Springs, Clifton Court Forebay, Union Island, Altamont, Midway, Tracy, Mendenhall Springs, Cedar Mountain, Lone Tree Creek).

Following the database review, Dudek biologists determined the potential for special-status plant and wildlife species to occur onsite. Determinations were based on a review of habitat types, soils, and elevation preferences, as well as the known geographic range and nearest occurrence records of each species. No protocol-level surveys for special-status species were conducted; the field survey was focused on evaluating the potential for the Project site to provide habitat for these species.

2.2 Biological Field Surveys

Dudek biologists Emily Scricca and Erin Fisher-Colton conducted a reconnaissance-level biological field survey within the PSA on March 31, 2023 (9:30–11:30 a.m., 58–61 degrees Fahrenheit, 1–4 mph wind, 75-90 percent cloud cover). The survey was conducted by foot and by vehicle to provide complete visual coverage of the PSA. Field notes, an aerial photograph with an overlay of the property boundary, and a Trimble Geo 7X Global Positioning System (GPS) unit were used to map vegetation communities and record any sensitive biological resources within the Project site. The focus of the survey was to assess overall habitat suitability for the target species identified from the database review described in Section 2.1. Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was also scanned with binoculars to aid in the identification of wildlife.

Protocol-level rare plant surveys were conducted on May 16, 2023, August 2, 2023, and January 18, 2024, to identify special-status rare plant species within the updated PSA boundaries.

A protocol-level habitat assessment for CRLF was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the PSA to identify potential aquatic breeding sites within dispersal distance of the PSA.

Additional burrow surveys associated with protocol-level burrowing owl (*Athene cunicularia*) were conducted on April 15, May 3, and May 24, 2024.

3 Findings

3.1 Vegetation Communities

There was one vegetation community mapped on site: California annual grassland. The vegetation communities and land covers listed here were adapted from the Manual of California Vegetation, Online Edition (CNPS 2021).

Non-native annual grasslands general habitat is a land cover type which represents the entire project site. The herbaceous level is dominated by non-native species including wild oats (*Avena* spp.), bromes (*Bromus* spp.), and

barleys (*Hordeum* spp.). Non-native grasslands were not mapped to the alliance or association level because all alliances and associations are not considered sensitive as they are dominated by non-native species.

3.2 Aquatic Resources

There is one seasonal channel (0.37 acre, 846.07 linear feet), Patterson Run, within the PSA where the BESS facility site connects to the gen-tie alignment, paralleling Patterson Pass Road.

3.3 Special-Status Species

3.3.1 Special-Status Plants

"Special-status plant species" in this report include plant species listed as endangered or threatened under the federal Endangered Species Act (FESA) or proposed for listing under the FESA.

The PSA was found not to contain suitable habitat for any special-status plant species. Special-status plant species were observed during the protocol-level rare plant surveys.

3.3.2 Special-Status Wildlife

"Special-status wildlife species" in this report include wildlife species listed, proposed for listing, or candidates for listing as threatened or endangered under FESA.

The PSA contains habitat for three special-status wildlife species: California tiger salamander (*Ambystoma californiense* pop. 1), California red-legged frog (*Rana draytonii*), and San Joaquin kit fox (*Vulpes macrotis mutica*). Each of these species are discussed in further detail below.

California Tiger Salamander (central California distinct population segment [DPS]) is listed as threatened under FESA and occurs in small mammal burrows most of the year in grassland, savanna, or open woodland habitats in the vicinity of aquatic breeding habitat (e.g., vernal pools or ponds). The nearest documented occurrence is approximately 1.6 miles southwest of the PSA from 2012 (Occ. No. 1003), but there are numerous other records within 5 miles of the PSA (CDFW 2024). The habitat on the PSA is highly suitable upland refuge and dispersal habitat for this species, consisting of abundant grassland with small mammal burrows. Two nearby stock ponds provide suitable aquatic breeding habitat approximately 0.3 miles from the PSA (Figure 6). No California tiger salamanders were observed during the field surveys, but this species is extremely difficult to detect without focused surveys in accordance with USFWS and CDFW-sanctioned protocols (USFWS and CDFG 2003). This species has high potential to occur on the PSA.

California Red-Legged Frog is listed as threatened under FESA that occurs in small mammal burrows in the lowlands and foothills in the vicinity of aquatic breeding habitat (e.g., stream pools, ponds, marshes). The nearest documented occurrences are approximately 1.5 miles east, south, and west of the PSA (Occ. Nos. 822 from 2001, 1079 from 2008, 1759 from 2012, and 44 from 1993); there are numerous other records within 5 miles of the PSA (CDFW 2024). The habitat on the PSA is highly suitable upland refuge and dispersal habitat for this species, consisting of abundant grassland with small mammal burrows. The PSA is also located within critical habitat for

California red-legged frog. Three aquatic features were assessed for habitat suitability for CRLF: Patterson Run, an ephemeral stream paralleling Patterson Pass Road, and two stock ponds approximately 0.3 miles northwest (Pond 1) and west (Pond 2) of the PSA. Of these aquatic features, only Pond 2 was determined to provide high-quality breeding habitat for CRLF, consisting of a large, deep stock pond with perennial water and a large quantity of emergent vegetation (bulrush [*Schoenoplectus* sp.] along with alkali bulrush [*Bolboschoenus maritimus*]) and surrounded by grazed grassland. Patterson Run lacked large pools suitable for breeding, and Pond 1 lacked suitable emergent or marginal vegetation. No CRLF were observed during the field surveys or habitat assessment. The species has a high potential to occur on the PSA.

San Joaquin Kit Fox is listed as endangered under FESA and occurs in annual grasslands with loose textured sandy soils for burrowing, and suitable prey base. San Joaquin kit fox has a moderate potential to occur on the PSA. This species occurs on grassland and scrublands, oak woodland, alkali sink scrubland, vernal pools, and alkali meadows. The nearest documented occurrence is approximately 0.3 miles southwest of the PSA, a historical record from 1984 (Occ. No. 6); multiple other historical records are within 5 miles of the PSA, all prior to 1992 (CDFW 2024). There is abundant moderate-quality grassland present on the site. Dudek biologists conducted focused burrow surveys on May 16 and August 2, 2023. All burrows potentially suitable for San Joaquin kit fox, western burrowing owl, and American badger were documented. Several larger ground squirrel (*Otospermophilus beecheyi*) burrows were documented on the eastern side of the project area, adjacent to Patterson Pass Road. Although atypical for either American badger or San Joaquin kit fox, these burrows were documented as being potentially suitable for these species. Additional burrow surveys were conducted April 15, May 3, and May 24, 2024 as part of a protocol-level western burrowing survey. All burrows onsite were determined to be either ground squirrel or pocket gopher (*Thomomys bottae*) and were not suitable for either San Joaquin kit fox or American badger. Further, no sign of either of these species has been documented during any site survey conducted in 2023 or 2024.

3.4 Critical Habitat

Designated Critical Habitat (DCH) is designated by USFWS when a species is federally listed and represents areas of the species' range (or potential range) that contain essential features for the species' conservation (USFWS 2017). There is DCH for multiple species within 5 miles of the PSA.

California Red-Legged Frog

DCH for CRLF overlaps the PSA and extends to the north and southwest (USFWS 2023e), in areas of undeveloped or rural agricultural lands. Critical habitat for CRLF consists of four primary constituent elements (PCEs), which support different components of the species' life history, as last updated by USFWS in 2010 (75 FR 12816-12959):

1. **Aquatic Breeding Habitat**: Standing bodies of fresh water including natural and manmade (e.g., stock) ponds, slow-moving streams, pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in most years.
1. **Aquatic Non-Breeding Habitat:** Freshwater aquatic habitats that may not hold water long enough for the species to complete its aquatic life cycle, but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult CRLF. These may include breeding habitat as described above, as well as plunge pools within intermittent creeks, seeps, quiet water refugia within streams, and flowing springs.

2. Upland Habitat: Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to 1 mi (1.6 km), depending on surrounding landscape and dispersal barriers. Upland habitat may include grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance with structural features such as boulders, rocks and organic debris (e.g., downed trees, logs), small mammal burrows, or moist leaf litter.
3. Dispersal Habitat: Accessible upland or riparian habitat within and between occupied locations within a minimum of 1 mi (1.6 km) of each other and that support movement between such sites. Dispersal habitat includes various natural or moderately altered habitats (such as agricultural fields) that do not contain dispersal barriers. Dispersal habitat does not include moderate- to high-density urban or industrial developments, nor does it include large (>50 ac) lakes or reservoirs.

PCEs 3 and 4 (upland and dispersal habitat) are present on the PSA, and PCEs 1 and 2 (aquatic breeding and non-breeding habitat) are present within dispersal distance (1 mile) of the PSA.

Alameda Whipsnake

There is DCH for Alameda whipsnake (*Masticophis lateralis euryxanthus*) approximately 2.5 miles south of the PSA (USFWS 2023f). This species is not expected to occur within or near the PSA due to a lack of suitable chaparral or scrub habitat.

Delta Smelt

There is DCH for Delta smelt (*Hypomesus transpacificus*) in Old River approximately 3 miles northeast of the PSA (USFWS 2023g). This species is not expected to occur within or near the PSA due to being outside of the known range of the species and due to a lack of suitable aquatic habitat.

Large-Flowered Fiddleneck

There is DCH for large-flowered fiddleneck (*Amsinckia grandiflora*) approximately 4.5 miles south of the PSA (USFWS 2023h). This species is not expected to occur within the PSA due to being outside of the known elevation range of the species.

4 Conclusions

Aquatic Resources. There was one aquatic resource identified within the Project site, a seasonal channel (0.37 acre, 846.07 linear feet), Patterson Run, where the BESS facility site connects to the gen-tie alignment, paralleling Patterson Pass Road. This drainage is potentially jurisdictional under Section 404 of the Clean Water Act.

Special Status Plants. No federally listed plants or sensitive vegetation communities were identified as having potential to occur in the PSA.

Special Status Wildlife. Three federally listed wildlife species have a moderate or high potential to occur on the PSA, including California tiger salamander, California red-legged frog, and San Joaquin kit fox.

California tiger salamander, California red-legged frog, burrowing owl, and San Joaquin kit fox are all focal species of the East Alameda County Conservation Strategy (EACCS) (ICF 2010). The East Alameda County Conservation Strategy (EACCS ICF 2010) is a voluntary conservation plan that was collaboratively developed by local and regulatory agencies between 2007 and 2009; the final draft was completed in December 2010. It is not a formal Habitat Conservation Plan (HCP) in that it does not require local agencies to conserve species and habitat prior to approving projects that impact listed species and/or their habitat, nor does it have a corresponding programmatic incidental take permit from USFWS or CDFW. Instead, it is intended to streamline state and local permitting by providing guidance on avoidance, minimization, and mitigation for project-level impacts on selected focal special-status species and sensitive habitats. Because the EACCS does not have corresponding permits, individual projects may need to implement different or more avoidance, minimization, and mitigation measures than what is outlined therein. To avoid this from happening, the USFWS and CDFW participated in the development of the EACCS with the intent that it would become the blueprint for all mitigation and conservation in the region. Both agencies still refer to the EACCS when reviewing project-level impacts on focal species and their habitat. Per this strategy, there are species-specific avoidance and mitigation measures for California tiger salamander and California red-legged frog (AMPH-1 and AMPH-2), and San Joaquin kit fox (MAMM-1) that would need to be implemented during construction, and programmatic compensatory mitigation requirements for impacts to focal species habitat. Given the high quality of grassland habitat on the site, the mitigation ratio could be as high as 4:1 (acres protected: acres impacted).

In summary, the site provides habitat for three federally listed wildlife species: California tiger salamander, California red-legged frog, and San Joaquin kit fox. Consultation with USFWS would be necessary prior to any development to determine an appropriate permitting mechanism, including potential coverage under the EACCS. Consultation with the U.S. Fish and Wildlife Service through Section 7 of the federal Endangered Species Act process may be required. Further, it is likely that any project occurring within San Joaquin kit fox habitat will require a take authorization and permit from USFWS.

Sincerely,

Laura Burris
Biologist

cc: Ronelle Candia, Senior Project Manager, Dudek
Luke Shillington, Strategic Land and Energy Development

5 References

CNPS. 2021. A Manual of California Vegetation, Online Edition. Sacramento, California: CNPS. Accessed April 2023. http://vegetation.cnps.org

CDFW. 2024. California Natural Diversity Database (CNDDB) Rarefind 5, Commercial version 5.3.0. CDFW, Biogeographic Data Branch. Accessed January 2024. https://wildlife.ca.gov/Data/CNDDB.

CNPS (California Native Plant Society), Rare Plant Program. 2023a. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). California Native Plant Society, Sacramento, California. Accessed February 2023. http://www.rareplants.cnps.org.

ICF. 2010. *East Alameda County Conservation Strategy*. Final. Prepared for: East Alameda County Conservation Strategy Steering Committee. San Jose, CA: ICF International. ICF 00906.08. October 2010. Accessed August 2023. http://www.eastalco-conservation.org/documents.html.

USDA. 2023a. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed April 2023. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

USDA. 2023b. List of Hydric Soils. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed April 2023. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

USFWS. 2023. "National Wetlands Inventory." U.S. Department of the Interior, USFWS. Accessed August 2023. http://www.fws.gov/wetlands/.

USFWS. 2024. IPaC (Information for Planning and Consultation) Search. Accessed January 2024. https://ipac.ecosphere.fws.gov/.

USFWS. 2023. "The National Wetlands Inventory." Accessed April 2023. fws.gov/wetlands/NWI/index.html.

USGS (U.S. Geological Survey). 2023. "The National Map Viewer" [online GIS viewer]. National Hydrography GIS Data. Accessed August 2023. https://www.usgs.gov/tools/national-map-viewer

WRCC (Western Regional Climate Center). 2023. Historical Climate Information: Tracy Pumping Plant, California (049001). Accessed April 2023. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7965.

Appendix C CALIFORNIA RED-LEGGED FROG HABITAT ASSESSMENT

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

Site Assessment reviewed by_____ _____ _____
(FWS Field Office) **(date)** **(biologist)**

Date of Site Assessment: 08/02/2023
(mm/dd/yyyy)

Site Assessment Biologists:

Fisher-Colton	Erin	Higney	Kelsey
(Last name)	**(first name)**	**(Last name)**	**(first name)**
(Last name)	**(first name)**	**(Last name)**	**(first name)**

Site Location: Mulqueeney Ranch; Alameda County, CA; 37.710245, -121.571128.
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: Potentia-Viridi BESS
Brief description of proposed action:
Battery energy storage system and generation tie

1) Is this site within the current or historic range of the CRF (circle one)? YES☑ NO☐

2) Are there known records of CRF within 1.6 km (1 mi) of the site (circle one)? YES☐ NO☑
If yes, attach a list of all known CRF records with a map showing all locations.

GENERAL AQUATIC HABITAT CHARACTERIZATION

(if multiple ponds or streams are within the proposed action area, fill out one data sheet for each)

POND:

Size: N/A Maximum depth: N/A

Vegetation: emergent, overhanging, dominant species: N/A

Substrate: N/A

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: N/A

☐ ☐

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

STREAM:

Bank full width: 20 ft
Depth at bank full: 2 ft
Stream gradient: low

Are there pools (circle one)? YES ☐ NO ☑
If yes,
Size of stream pools: _____
Maximum depth of stream pools: _____

Characterize non-pool habitat: run, riffle, glide, other: Runs and glides. No cobbles, some downed logs and branches in the streambed.
Little slope present. Wide, relatively slow flows when filled.

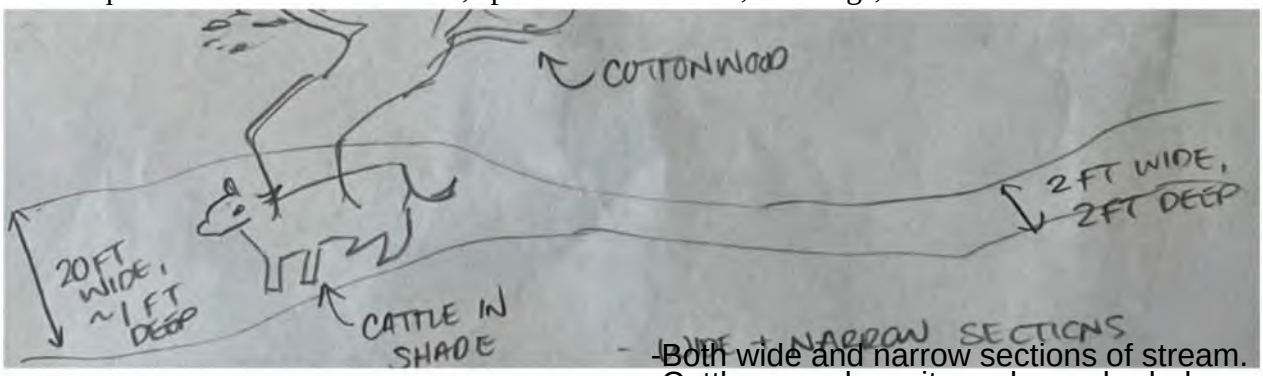
Vegetation: emergent, overhanging, dominant species:
Populus fremontii, Salix sp., Avena sp. upland grassland

Substrate: silt/clay

Bank description: Completely covered in grass (Avena fatua, Bromus sp.); 30-45 degree slope from OHWM.
Some banks deeply incised to streambed.

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: between March and May (variable)

Other aquatic habitat characteristics, species observations, drawings, or comments:



-Both wide and narrow sections of stream.
-Cattle grazed on site and use shaded streambed to rest.
-Dry in May, but was flowing in March.

Labeled as "Patterson Run"

Necessary Attachments:

1. All field notes and other supporting documents See BTR.
2. Site photographs See BTR Attachment E.
3. Maps with important habitat features and species location See BTR Attachment 1, Figure 3.

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

Site Assessment reviewed by_____ _____ _____
(FWS Field Office) **(date)** **(biologist)**

Date of Site Assessment: 08/02/2023
(mm/dd/yyyy)

Site Assessment Biologists: Fisher-Colton (Last name) Erin (first name); Higney (Last name) Kelsey (first name)

_____ (Last name) _____ (first name); _____ (Last name) _____ (first name)

Site Location: Mulqueeney Ranch; Alameda County, CA; 37.716578, -121.583643.
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)****

Proposed project name: Potentia-Viridi BESS
Brief description of proposed action:
Battery energy storage system and generation tie

1) Is this site within the current or historic range of the CRF (circle one)? YES☑ NO☐

2) Are there known records of CRF within 1.6 km (1 mi) of the site (circle one)? YES☐ NO☑
If yes, attach a list of all known CRF records with a map showing all locations.

GENERAL AQUATIC HABITAT CHARACTERIZATION

(if multiple ponds or streams are within the proposed action area, fill out one data sheet for each)

POND:

Size: 55 meters x 29 meters Maximum depth: ~1 meter

Vegetation: emergent, overhanging, dominant species: _____
Amaranthus albus, Distichlis spicata, Elymus sp., Bromus rubra, Festuca sp., Polypogon monspeliensis

Substrate: mud/silt

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: contained limited water on 8/2/23
☐ ☑

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

STREAM:

Bank full width: N/A
Depth at bank full: N/A
Stream gradient: N/A

Are there pools (circle one)? YES ☐ NO ☐
If yes,
Size of stream pools: _____
Maximum depth of stream pools: _____

Characterize non-pool habitat: run, riffle, glide, other: N/A

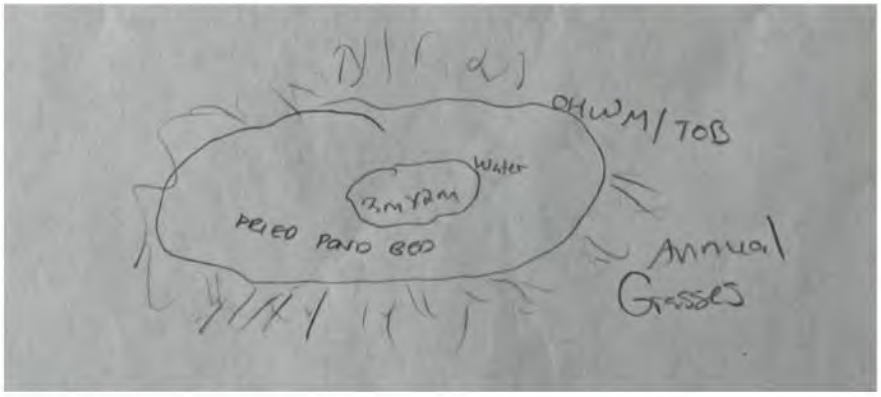
Vegetation: emergent, overhanging, dominant species: N/A

Substrate: N/A

Bank description: N/A

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: N/A

Other aquatic habitat characteristics, species observations, drawings, or comments:



Stock pond slightly west-northwest of Project site
This feature was full to OHWM in Mar 2023; water remaining in Aug 2023 ~3m x 2m

Necessary Attachments:

1. All field notes and other supporting documents See BTR.
2. Site photographs See BTR Attachment E.
3. Maps with important habitat features and species location See BTR Attachment 1, Figure 3.

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

Site Assessment reviewed by_____ _____ _____
(FWS Field Office) **(date)** **(biologist)**

Date of Site Assessment: 08/02/2023
(mm/dd/yyyy)

Site Assessment Biologists: Fisher-Colton (Last name) Erin (first name); Higney (Last name) Kelsey (first name)

_____ (Last name) _____ (first name); _____ (Last name) _____ (first name)

Site Location: Mulqueeney Ranch; Alameda County, CA; 37.711060, -121.584215.
(County, General location name, UTM Coordinates or Lat./Long. or T-R-S).

****ATTACH A MAP** (include habitat types, important features, and species locations)**

Proposed project name: Potentia-Viridi BESS
Brief description of proposed action:
Battery energy storage system and generation tie

1) Is this site within the current or historic range of the CRF (circle one)? YES NO

2) Are there known records of CRF within 1.6 km (1 mi) of the site (circle one)? YES NO
If yes, attach a list of all known CRF records with a map showing all locations.

GENERAL AQUATIC HABITAT CHARACTERIZATION

(if multiple ponds or streams are within the proposed action area, fill out one data sheet for each)

POND:

Size: 32 meters x 29 meters Maximum depth: ~2 meter

Vegetation: emergent, overhanging, dominant species:
Bulrush sp., closer to bank is Polypogon monspeliensis, Atriplex prostrata, Rumex crispus, Heliotrope curassavicum, Bolboschoenus maritimus

Substrate: mud/silt

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: well-filled in August 2023
☑

Appendix D.
California Red-legged Frog Habitat Site Assessment Data Sheet

STREAM:

Bank full width: N/A
Depth at bank full: N/A
Stream gradient: N/A

Are there pools (circle one)? YES NO

If yes,

Size of stream pools: _____
Maximum depth of stream pools: _____

Characterize non-pool habitat: run, riffle, glide, other: N/A

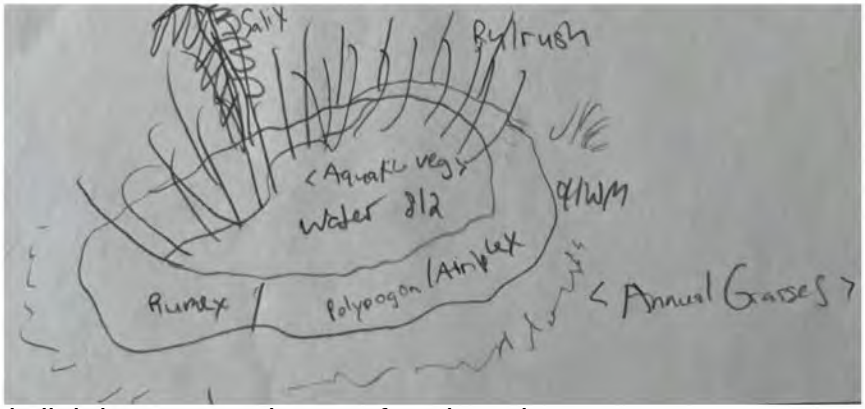
Vegetation: emergent, overhanging, dominant species: N/A

Substrate: N/A

Bank description: N/A

Perennial or Ephemeral *(circle one)*. If ephemeral, date it goes dry: N/A

Other aquatic habitat characteristics, species observations, drawings, or comments:



Stock pond slightly west-southwest of Project site
This feature was full to OHWM in Mar 2023

Necessary Attachments:

1. All field notes and other supporting documents See BTR.
2. Site photographs See BTR Attachment E.
3. Maps with important habitat features and species location See BTR Attachment 1, Figure 3.

Appendix D EACCS MITIGATION SCORING SHEETS

Appendix E. Continued

Table E-4. Impact/Mitigation Scoring for California tiger salamander in the EACCS study area.

California tiger salamander	5	4	3	2	1	0	Score
Closest suitable breeding habitat to site	On-site	Within 500 feet	Between 501 – 1,600 feet	Between 1,601 –2,050 feet	Between 2051–6,900 feet	Greater than 6,900 feet	3
Is there occupied habitat within 6,900 feet of site?	Yes	--	--	No	--	--	2
Aquatic land covers impacted/ mitigated	Wetland, Ponds	--	Stream/River	--	--	All others; none	0
Upland land covers impacted/ mitigated	Grassland, Oak woodland, Rural residential	Chaparral/ Scrub	Riparian	Conifer woodland	ruderal without refugia habitat	All others; none	5
Elevation	Below 3,700 feet	--	--	--	--	Above 3,700 feet	5
Presence of ground squirrels/pocket gophers	On site	Within 1,350 feet of site	Between >1,351 but <2,650 feet	Between >2,651 bu <5,300 feet	Between >5,301 but <7,900 feet	> 7,901 feet from site	5
Presence of bullfrogs or non-native fish in aquatic resources on site	No	--	Low number; not all aquatic habitats occupied	--	Yes, occurring in high numbers	--	0
Create a new barrier between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	3
Protect linkage between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	0
Inside designated Critical Habitat	Yes	--	--	--	--	No	0
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	1
Total Score							24
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-8. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Appendix E. Continued

Table E-5. Impact/Mitigation Scoring for California red-legged frog in the EACCS study area.

California red-legged frog	5	4	3	2	1	0	Score
Closest suitable breeding habitat to site	On-site	< 1-mile	>1-mile but < 2-miles	--	--	Greater than 2-miles	3
Is there occupied habitat within 2-miles of site?	Yes	--	--	No	--	--	3
Aquatic land covers impacted/ mitigated	Wetland, Ponds, Stream/River	--	--	--	--	All others; none	5
Upland land covers impacted/ mitigated	Riparian, Grassland, Oak woodland, Rural residential	Chaparral/ Scrub	Conifer woodland	Cultivated ag, ruderal	--	All others; none	5
Elevation	Below 3,500 feet	--	--	--	--	Above 3,500 feet	5
Presence of ground squirrels or other burrowing mammals	On site	< 0.25-mile of site	> 0.25 but ≤ 0.5 miles	> 0. 5 but ≤ 1.0 miles	> 1.0 but ≤ 1.5 miles	> 1.5 miles	5
Presence of bullfrogs or non-native fish in aquatic resources on site	No	--	Low numbers and not all aquatic habitats are occupied	--	Yes, occurring in high numbers	--	0
Create a new barrier between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	3
Protect linkage between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	0
Inside East San Francisco Bay core recovery area	Yes					No	0
Inside designated Critical Habitat	Yes	--	--	--	--	No	5
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	0
Total Score							34
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-7. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Appendix E. Continued

Table E-11. Impact/Mitigation Scoring for San Joaquin kit fox and America badger in the EACCS study area.

San Joaquin kit fox/American badger	5	4	3	2	1	0	Score
Impact/ Mitigation occurs in:	CZ5CZ6/CZ7/ CZ9/CZ10	--	—CZ4 or CZ13	--	—CZ2, CZ3, CZ11, CZ12	--	5
Land covers impacted/ mitigated	Grassland, Rural residential	Chaparral/ Scrub	Oak woodland, Cultivated Ag	Seasonal wetlands, Orchard	, ruderal	All others	5
Average Slope	0-5%	> 5 but < 10%	≥ 10 but < 25%	≥25%	--	All others	4
Presence of ground squirrels	On site	Within 0.25-mile of site	Within 0.5-mile of site	--	--	Further away	5
Linkages and movement	Creation or removal of potential linkage across barrier (e.g. culvert under freeway)	Land adjacent to potential linkage on both sides of barrier (e.g., culvert under freeway)	Land adjacent to potential linkage on one side of barrier (e.g., culvert under freeway)	Land not adjacent to key linkage for species.	--	--	2
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	1
Total Score							22
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-11. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Appendix E. Continued

Table E-4. Impact/Mitigation Scoring for California tiger salamander in the EACCS study area.

California tiger salamander	5	4	3	2	1	0	Score
Closest suitable breeding habitat to site	On-site	Within 500 feet	Between 501 – 1,600 feet	Between 1,601 –2,050 feet	Between 2051–6,900 feet	Greater than 6,900 feet	5
Is there occupied habitat within 6,900 feet of site?	Yes	--	--	No	--	--	5
Aquatic land covers impacted/ mitigated	Wetland, Ponds	--	Stream/River	--	--	All others; none	5
Upland land covers impacted/ mitigated	Grassland, Oak woodland, Rural residential	Chaparral/ Scrub	Riparian	Conifer woodland	ruderal without refugia habitat	All others; none	5
Elevation	Below 3,700 feet	--	--	--	--	Above 3,700 feet	5
Presence of ground squirrels/pocket gophers	On site	Within 1,350 feet of site	Between >1,351 but <2,650 feet	Between >2,651 bu <5,300 feet	Between >5,301 but <7,900 feet	> 7,901 feet from site	5
Presence of bullfrogs or non-native fish in aquatic resources on site	No	--	Low number; not all aquatic habitats occupied	--	Yes, occurring in high numbers	--	0
Create a new barrier between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	0
Protect linkage between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	5
Inside designated Critical Habitat	Yes	--	--	--	--	No	0
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	5
Total Score							40
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-8. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Appendix E. Continued

Table E-5. Impact/Mitigation Scoring for California red-legged frog in the EACCS study area.

California red-legged frog	5	4	3	2	1	0	Score
Closest suitable breeding habitat to site	On-site	< 1-mile	>1-mile but < 2-miles	--	--	Greater than 2-miles	5
Is there occupied habitat within 2-miles of site?	Yes	--	--	No	--	--	5
Aquatic land covers impacted/ mitigated	Wetland, Ponds, Stream/River	--	--	--	--	All others; none	5
Upland land covers impacted/ mitigated	Riparian, Grassland, Oak woodland, Rural residential	Chaparral/ Scrub	Conifer woodland	Cultivated ag, ruderal	--	All others; none	5
Elevation	Below 3,500 feet	--	--	--	--	Above 3,500 feet	5
Presence of ground squirrels or other burrowing mammals	On site	< 0.25-mile of site	> 0.25 but ≤ 0.5 miles	> 0. 5 but ≤ 1.0 miles	> 1.0 but ≤ 1.5 miles	> 1.5 miles	5
Presence of bullfrogs or non-native fish in aquatic resources on site	No	--	Low numbers and not all aquatic habitats are occupied	--	Yes, occurring in high numbers	--	0
Create a new barrier between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	0
Protect linkage between breeding and upland habitat	Documented breeding location	--	Potential breeding location	--	--	No	5
Inside East San Francisco Bay core recovery area	Yes					No	0
Inside designated Critical Habitat	Yes	--	--	--	--	No	5
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	5
Total Score							45
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-7. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Appendix E. Continued

Table E-11. Impact/Mitigation Scoring for San Joaquin kit fox and America badger in the EACCS study area.

San Joaquin kit fox/American badger	5	4	3	2	1	0	Score
Impact/ Mitigation occurs in:	CZ5CZ6/CZ7/ CZ9/CZ10	--	—CZ4 or CZ13	--	—CZ2, CZ3, CZ11, CZ12	--	5
Land covers impacted/ mitigated	Grassland, Rural residential	Chaparral/ Scrub	Oak woodland, Cultivated Ag	Seasonal wetlands, Orchard	, ruderal	All others	5
Average Slope	0-5%	> 5 but < 10%	≥ 10 but < 25%	≥25%	--	All others	4
Presence of ground squirrels	On site	Within 0.25-mile of site	Within 0.5-mile of site	--	--	Further away	5
Linkages and movement	Creation or removal of potential linkage across barrier (e.g. culvert under freeway)	Land adjacent to potential linkage on both sides of barrier (e.g., culvert under freeway)	Land adjacent to potential linkage on one side of barrier (e.g., culvert under freeway)	Land not adjacent to key linkage for species.	--	--	3
On parcels with an approved management plan for this species.	Yes	--	--	--	No	--	5
Total Score							27
Note: The ratio of mitigation to impact depends on the location of the mitigation. The acres of mitigation for a given project would be determined using the ratios shown in Table 3-11. Habitat quality of the impact site and the mitigation site would be scored using this table.							

Outlook

FW: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

From Kelly Strain <KStrain@capstoneinfra.com>
Date Mon 9/9/2024 11:03 AM
To Cameron Johnson <cjohnson@integral-corp.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Andrea Kausel <akausel@capstoneinfra.com>
Cc Paul Miller <pam@eurowindenergy.com>; Rocio Perez <rpe@eurowindenergy.com>; Dwain Boettcher <dbo@eurowindenergy.com>

[CAUTION: External email. Think before you click links or open attachments.]

From: Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Sent: September 9, 2024 10:22 AM
To: Kelly Strain <KStrain@capstoneinfra.com>
Cc: Knight, Eric@Energy <Eric.Knight@energy.ca.gov>
Subject: Fw: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

Hi Kelene,

Thank you for including CEC staff on coordination with the Water Board. Staff looks forward to a group meeting with the applicant's representatives and Water Board so we can discuss the Opt-In process and data requests.

Staff would like to get clarification on "the application materials for the Via Verdi BESS Project that we discussed. This is the same document that was emailed to the Board on August 8 (see email below)" - see below in highlight.

We would like to confirm that this is a reference to CEC Opt in Application that was posted to the CEC docket? Or is there another set of "application materials"?

Thanks!

Ann

Ann Crisp

Senior Environmental Planner

Siting and Environmental Branch

Siting, Transmission and Environmental Protection Division

1-916-352-0543

California Energy Commission

Website: www.energy.ca.gov

From: Yang, Jenna@Waterboards <Jenna.Yang@Waterboards.ca.gov>
Sent: Monday, September 9, 2024 8:15 AM
To: Cameron Johnson <cjohnson@integral-corp.com>
Cc: Kelly Strain <KStrain@capstoneinfra.com>; Naomi Schowalter <nschowalter@integral-corp.com>; Crisp, Ann@Energy <Ann.Crisp@energy.ca.gov>
Subject: Re: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

Good morning,

This is also my first time working through the CEC opt-in process and the steps you mentioned is what I have been told as well. Ideally the 401 Certification will be drafted during the CEC CEQA process and should be issued shortly after CEC finalizes the EIR.

The application you sent before contains most of the items we need to issue a complete application notification. My comments are the same as before:

1. Please make sure the application is signed
2. Provide the compensatory mitigation plan for 0.04 acre of impact to stream channel

Jenna Yang
Water Resource Control Engineer
401 Water Quality Certification and Dredging Unit
Central Valley Regional Water Quality Control Board
jenna.yang@waterboards.ca.gov

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Friday, September 6, 2024 2:10 PM
To: Yang, Jenna@Waterboards <Jenna.Yang@Waterboards.ca.gov>
Cc: Kelly Strain <KStrain@capstoneinfra.com>; Naomi Schowalter <nschowalter@integral-corp.com>
Subject: Re: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

Hi Jenna - I am writing to confirm that you have received the application package from the CEC (the same as the one we sent directly to you on Aug 27). Please let me know if you need anything from our side. We received your earlier comments that were directed to CEC wherein you included a need for a mitigation solution and a SWPPP; we are working on those now.

As this is my first time utilizing the CEC process, I am unsure of the milestones. I believe that we can expect the following (please correct me where I go wrong):

1) You receive application package from CEC

2) You review and provide any comments back to CEC (who will then forward to us)

3) We provide responses to CEC, who then bank-shots back to you.

4) Assuming all required information is included, you issue a notice of completeness

5) ???-days of processing to issue final 401 certification

I know that we need the mitigation and SWPPP, but if there is anything else we can be proactively working on, please let me know so we can expedite where possible.

Thanks so much - Cameron

Cameron Johnson | Principal
Permitting and Planning
Tel: 415.458.6701 | Cell: 415.602.2970 | Brisbane | CA
cjohnson@integral-corp.com | Bio

integral INSIGHT FOR AN EVOLVING WORLD

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Tuesday, August 27, 2024 12:03 PM
To: jenna.yang@waterboards.ca.gov <jenna.yang@waterboards.ca.gov>
Cc: Kelly Strain <KStrain@capstoneinfra.com>; Naomi Schowalter <nschowalter@integral-corp.com>
Subject: Re: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

Jenna - please see attached the application materials for the Via Verdi BESS Project that we discussed. This is the same document that was emailed to the Board on August 8 (see email below). You provided comments regarding this project to the California Energy Commission on August 22, 2024 , titled "COMMENTS ON AB 205 OPT-IN APPLICATION FOR CERTIFICATION, CEC DOCKET NUMBER 24-OPT-04, LEVY ALAMEDA, LLC, POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM PROJECT, ALAMEDA COUNTY"

I believe that the application will have most of the information that you require with the exception of the SWPPP (which we will begin working on now).

Please review and let us know if you have additional requirements, comments, or information requests. Also, please let us know if you need (or would like) to have a pre-application meeting to go through the project details.

Thanks - Cameron
(415)602-2970

From: Naomi Schowalter <nschowalter@integral-corp.com>
Sent: Thursday, August 8, 2024 8:25 AM
To: centralvalleysacramento@waterboards.ca.gov; stephanie.tadlock@waterboards.ca.gov
Cc: matthew.j.diloreto@usace.army.mil; Kelly Strain <kstrain@capstoneinfra.com>; Lauren McLeod <lmcleod@capstoneinfra.com>
Subject: Pre-Filing Meeting Request, 401 certification, Potentia-Viridi Battery Energy Storage System Project

Good Morning,

We are requesting a Pre-filing Meeting for a 401 certification application for the Potentia-Viridi Battery Energy Storage System Project, located near the City of Tracy in unincorporated Alameda County. The draft 401 application is attached.

Thank you,

Naomi

Naomi Schowalter | Consultant
Tel: 415.458.6704 | Cell: 619.647.7344 | Brisbane | CA
nschowalter@integral-corp.com | Bio

integral INSIGHT FOR AN EVOLVING WORLD

Outlook

Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

From Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Date Wed 10/2/2024 3:37 PM
To Cameron Johnson <cjohnson@integral-corp.com>
Cc Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>

2 attachments (387 KB)
DRAFT-TRIBAL-Coord_Letter-202400486.docx; PV_BESS_NAHC_List-202400486.pdf;

[CAUTION: External email. Think before you click links or open attachments.]
Good Afternoon,

Attached is the Draft template sent to the tribes as well as the provided NAHC contact list used for the consultation/coordination process.

Respectfully,

Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
Office: (916) 557-7882
Mobile: (919) 356-6179
matthew.j.diloreto@usace.army.mil

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Tuesday, October 1, 2024 10:31 AM
To: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Cc: Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

I think the draft template and the NAHC list will do the trick.

Thanks Matthew
CAMERON JOHNSON | Principal
Permitting and Planning
Tel: 415.458.6701 | Cell: 415.602.2970 | Brisbane | CA
cjohnson@integral-corp.com | Bio

integral INSIGHT FOR AN EVOLVING WORLD

From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Tuesday, October 1, 2024 9:20 AM
To: Cameron Johnson <cjohnson@integral-corp.com>
Cc: Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

[CAUTION: External email. Think before you click links or open attachments.]
Good Morning,

To update on the status of coordination, we did have two tribal responses to which we responded with an offer for further coordination based on their respective availability. To date, we have not received a response to those follow ups.

As to the CEC request, would they need a copy of the final draft template, or each of the individual tribal letters that we had sent as part of our coordination? I can pass the draft and NAHC list here along shortly.

V/R,

Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
Office: (916) 557-7882
Mobile: (919) 356-6179
matthew.j.diloreto@usace.army.mil

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Monday, September 30, 2024 7:08 PM
To: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Cc: Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

Matthew - just checking in to see if you have received any feedback from any of the tribes?

Also, we had a request for a list of the tribal groups that you have contacted - can you please send a copy of the letter and the list of addressees? The CEC is the lead CEQA agency and they are trying to keep consistent with the agency efforts.

Best - Cameron
CAMERON JOHNSON
Tel: 415.458.6701 | Cell: 415.602.2970
INTEGRAL CONSULTING INC.

From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Wednesday, September 11, 2024 2:18 PM
To: Cameron Johnson <cjohnson@integral-corp.com>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: RE: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

[CAUTION: External email. Think before you click links or open attachments.]
Good Afternoon Cameron,

The peer review was completed earlier today and are being addressed to go out this afternoon to the tribes. A slight delay due to EOM time entry and anticipated system outage due to tropical storms affecting the servers, but still on schedule for this weeks submittal target.

Thank you again for the continue patience, and I will keep you update on any new developments in the coordination.

Respectfully,
Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
Phone: (916) 557-7882
matthew.j.diloreto@usace.army.mil
* Our customer service hours are 9am to 3pm Monday through Friday.
* Visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx for more info and to sign up for public notices.

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Wednesday, September 11, 2024 10:57 AM
To: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

Hi Matthew - just a quick follow up on the 106 request for concurrence - did we make it through the review chain?

Best - Cameron
CAMERON JOHNSON
Tel: 415.458.6701 | Cell: 415.602.2970
INTEGRAL CONSULTING INC.

From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Friday, September 6, 2024 2:41 PM
To: Cameron Johnson <cjohnson@integral-corp.com>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: RE: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

[CAUTION: External email. Think before you click links or open attachments.]
Good Afternoon,

The Section 7 Consultation was sent out this afternoon after peer review, the next step I am getting initiated is the Tribal coordination memo to be sent out. Unfortunately the review chain is a bit backed up this week with limited staff availability and the recent holiday, so I apologize for the additional time incurred.

Thank you for bearing with us and the update, I aim to have the rest of the tribal coordinations sent out Monday/Tuesday this week.
Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
Phone: (916) 557-7882
matthew.j.diloreto@usace.army.mil
* Our customer service hours are 9am to 3pm Monday through Friday.
* Visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx for more info and to sign up for public notices.

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Friday, September 6, 2024 1:56 PM

To: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

Matthew - I am following up on our conversation from a week ago (August 29). Can you provide an update on the Section 7 and Section 106 initiation?

Also, as an update - we have submitted an application package to RWQCB and are working with Jenna Yang.

Best - Cameron

Cameron Johnson
(415)602-2970

CAMERON JOHNSON | Principal
Permitting and Planning
Tel: 415.458.6701 | Cell: 415.602.2970 | Brisbane | CA
cjohnson@integral-corp.com | Bio

integral INSIGHT FOR AN EVOLVING WORLD

From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Friday, July 19, 2024 2:55 PM
To: Cameron Johnson <cjohnson@integral-corp.com>
Cc: Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>; Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Subject: Potentia-Viridi Battery Energy Storage System Project (SPK-2024-00486)

[CAUTION: External email. Think before you click links or open attachments.]
Good Afternoon,

I received a copy of the request for a status update for the Potentia-Viridi Battery Energy Storage System Project this week. I am the TREC Project Manager who was assigned to this project on Monday. After completing the evaluation for the submittal, I am providing this email as a receipt of a complete application, and will move forward with initiating the respective Section 7 and Section 106 consultations this week.

While not a completeness item, in order to make the final permit decision, a copy of a 401 Water Quality Certification will be necessary to issue a permit for the action. The portion of the work that includes the intake/outfall structure is not currently certified by the State Water Resources Control Board (SWRCB), so an individual water quality certification may be required for the work. The particular office servicing this area is the Central Valley Regional Water Quality Control Board (CVRWQCB).

Please let me know if I may be of any assistance, and I look forward to working with you.

Respectfully,

Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
Office: (916) 557-7882
Mobile: (919) 356-6179
matthew.j.diloreto@usace.army.mil
* Our customer service hours are 9am to 3pm Monday through Friday.
* Visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx for more info and to sign up for public notices.

Outlook

RE: Request for Nationwide Permit - PV-BESS project, Alameda County

From Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Date Thu 7/18/2024 3:07 PM
To Cameron Johnson <cjohnson@integral-corp.com>
Cc Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>

[CAUTION: External email. Think before you click links or open attachments.]
Hi Cameron,

Thanks for letting me know, I will check on it.

Mary

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Thursday, July 18, 2024 10:17 AM
To: Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Cc: Lauren McLeod <lmcleod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Request for Nationwide Permit - PV-BESS project, Alameda County

Hi Mary - we have not received any notification from the TREC team. Please let me know if there is anything you may need from me to kick start the process.

Best - Cameron

Cameron Johnson
Integral Consulting, Inc.
(415)602-2970)

CAMERON JOHNSON
Tel: 415.458.6701 | Cell: 415.602.2970
INTEGRAL CONSULTING INC.

From: Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Sent: Monday, July 8, 2024 6:23 PM
To: Cameron Johnson <cjohnson@integral-corp.com>; Luke Shillington <lshillington@sled-consulting.com>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: RE: Request for Nationwide Permit - PV-BESS project, Alameda County

[CAUTION: External email. Think before you click links or open attachments.]

Cameron,

Thank you, received. I will refer the project to the TREC team in just a few minutes. If you do not hear from a PM within a week, please ping me and I will follow up.

Respectfully,

Mary Pakenham-Walsh

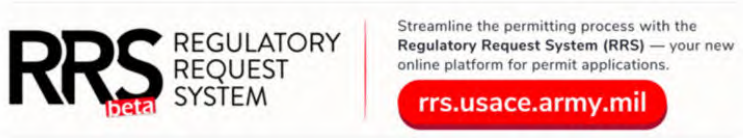
Chief, CA Delta Section

Regulatory Division, Sacramento District

(916) 557-7718

Pronouns: *she/her*

Web: https://www.spk.usace.army.mil/Missions/Regulatory.aspx



From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Monday, July 8, 2024 1:32 PM
To: Luke Shillington <lshillington@sled-consulting.com>; Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Cc: Lauren McLeod <LMcLeod@capstoneinfra.com>; Kelly Strain <KStrain@capstoneinfra.com>
Subject: [Non-DoD Source] Re: Request for Nationwide Permit - PV-BESS project, Alameda County

Mary - please see attached -

Let me know as soon as we have a contact for the PM, or if you have any questions or concerns.

Best - Cameron

Cameron Johnson

Integral Consulting, Inc.

(415)602-2970)

Cameron Johnson
Tel: 415.458.6701 | Cell: 415.602.2970
INTEGRAL CONSULTING INC.

From: Pakenham-Walsh, Mary R CIV USARMY CESPK (USA) <Mary.R.Pakenham-Walsh@usace.army.mil>
Sent: Monday, July 8, 2024 3:40 PM
To: cjohnson@integral-corp.com
Cc: Luke Shillington <lshillington@sled-consulting.com>; Lauren McLeod <lmcleod@capstoneinfra.com>
Subject: RE: Request for Nationwide Permit - PV-BESS project, Alameda County

Hi Cameron,

I got a forwarded internal email shortly after June 26, but didn't get the earlier email due to the "c" in the email (Pak vs. Pack). Consequently I did not get the attachments. If they are less than 20 MB please reply with them, and if more than 2 MB I can send a DoD SAFE link. After taking a closer look at it, it may be assigned to our regional infrastructure team ("TREC").

Respectfully,

Mary Pakenham-Walsh

Chief, CA Delta Section

Regulatory Division, Sacramento District

(916) 557-7718

Pronouns: *she/her*

Web: https://www.spk.usace.army.mil/Missions/Regulatory.aspx

From: Cameron Johnson <cjohnson@integral-corp.com>
Sent: Wednesday, June 26, 2024 3:20 PM
To: SPKRegulatoryMailbox <SPKRegulatoryMailbox@usace.army.mil>; mary.r.packenham-walsh@usace.army.mil
Cc: Luke Shillington <lshillington@sled-consulting.com>; lmcleod@capstoneinfra.com
Subject: [Non-DoD Source] Re: Request for Nationwide Permit - PV-BESS project, Alameda County

Hi Mary - just checking it o see if this project has been assigned to a PM?

Best - Cameron

Cameron Johnson | Principal
Permitting and Planning
Tel: 415.458.6701 | Cell: 415.602.2970 | Brisbane | CA
cjohnson@integral-corp.com | Bio

From: Cameron Johnson
Sent: Tuesday, June 18, 2024 2:07 PM
To: SPKRegulatoryMailbox@usace.army.mil <SPKRegulatoryMailbox@usace.army.mil>; mary.r.packenham-walsh@usace.army.mil <mary.r.packenham-walsh@usace.army.mil>
Cc: Luke Shillington <lshillington@sled-consulting.com>; lmcleod@capstoneinfra.com <lmcleod@capstoneinfra.com>
Subject: Request for Nationwide Permit - PV-BESS project, Alameda County

Mary - Please see the attached permit application for Nationwide Permits to support a battery storage project in eastern Alameda County. The project is seeking permits for needed upgrades to an existing outfall, and construction of a new low water crossing, on an un-named jurisdictional Water of the United States. The project is located adjacent to Patterson Pass Road, near the existing Altamont Pass Wind Substation. Total discharge is estimated to include 8.5-cubic yards of clean rip-rap material.

Please provide me with contact information for the Project Manager, and the SPK project number, after you have assigned this project.

My contact information is as follows:

Cameron Johnson

Integral Consulting, Inc.

(415)602-2970

Please call me with any questions or concerns, or if you require any additional information.

PS_ I am also sending a "REPLY ALL" second email without the attachment – if you do not receive the attachment, please send me a DoD Safe link, so that I can upload the file.

V/R – Cameron

Outlook

Re: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

From Hanni, Jason <jason_hanni@fws.gov>
Date Mon 10/7/2024 2:07 PM
To Tovar, Michelle <Michelle.Tovar@stantec.com>; Olah, Ryan <ryan_olah@fws.gov>
Cc Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>; Elia, Jared <Jared.Elia@stantec.com>

1 attachments (5 MB)
Enclosure 1-ESA-F Consult _JH.pdf;

[CAUTION: External email. Think before you click links or open attachments.]

Hi Matthew and Michelle.

This email is in response to the U.S Army Corps of Engineers (Corps) September 6, 2024, request for formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Potentia-Virindi Battery Energy Storage System Project (proposed project). Your request, which included the June 17, 2024, *Biological Assessment-Potentia-Virindi Battery Energy Storage System Project* (biological assessment), was received by the Service on September 6, 2024. The Service has not received all of the information necessary to initiate consultation on the proposed project as outlined in the regulations governing interagency consultations, 50 CFR 402.14. I have a attached the June 2024, biological assessment for the proposed project which includes my comments and recommendations for the proposed project. Please let me know if you have any questions regarding any of my comments.

We appreciate the avoidance, minimization, and conservation measures proposed thus far; however, the consultation process for the proposed project will not begin until we receive all of the information, or a statement explaining why that information cannot be made available.

Best,

Jason Hanni
Fish and Wildlife Biologist
Coast Bay Division
2800 Cottage Way, Room W-2605
Sacramento, California 95825
(916) 414-6656 (phone)
(916) 414-6712 (fax)

"working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people"

From: Tovar, Michelle <Michelle.Tovar@stantec.com>
Sent: Thursday, October 3, 2024 10:04 AM

To: Hanni, Jason <jason_hanni@fws.gov>; Olah, Ryan <ryan_olah@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>; Elia, Jared <Jared.Elia@stantec.com>
Subject: RE: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

Hi Jason,

Just checking in if you have any time to review our package.

We are currently working through our other agency permits and would love an update if you can pass one along.

Also let me know if a site visit would help as well to front load any questions,

Thank you,
Michelle

Michelle Tovar (she/her)
Sr. Principal Biologist – Practice Leader
Environmental Services
Stantec
555 Capitol Mall, Suite 650
Sacramento CA 95814-4583
Cell: (916) 213-8053
Michelle.Tovar@stantec.com

Stantec

Facebook Twitter LinkedIn YouTube Twitter

From: Hanni, Jason <jason_hanni@fws.gov>
Sent: Thursday, September 19, 2024 6:46 AM
To: Tovar, Michelle <Michelle.Tovar@stantec.com>; Olah, Ryan <ryan_olah@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>; Elia, Jared <Jared.Elia@stantec.com>
Subject: Re: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

Will do. Thanks Michelle.

Jason Hanni
Fish and Wildlife Biologist
Coast Bay Division
2800 Cottage Way, Room W-2605
Sacramento, California 95825
(916) 414-6656 (phone)
(916) 414-6712 (fax)

"working with others to conserve, protect and
enhance fish, wildlife, and plants and
their habitats for the continuing benefit of the American people"

From: Tovar, Michelle <Michelle.Tovar@stantec.com>
Sent: Wednesday, September 18, 2024 3:43 PM
To: Olah, Ryan <ryan_olah@fws.gov>; Hanni, Jason <jason_hanni@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>; Elia, Jared <Jared.Elia@stantec.com>
Subject: RE: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

Great thank you Ryan!

Hi Jason! Let me know if you have any questions as you review.

Happy to answer anything for you,

Michelle

Michelle Tovar (she/her)
Sr. Principal Biologist – Practice Leader
Environmental Services
Stantec
555 Capitol Mall, Suite 650
Sacramento CA 95814-4583
Cell: (916) 213-8053
Michelle.Tovar@stantec.com

Stantec

Facebook Twitter LinkedIn YouTube Twitter

From: Olah, Ryan <ryan_olah@fws.gov>
Sent: Monday, September 16, 2024 11:38 AM
To: Tovar, Michelle <Michelle.Tovar@stantec.com>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>; Hanni, Jason <jason_hanni@fws.gov>
Subject: Re: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

Hi Michelle. Jason Hanni will be the lead for this one-I have cc'd him on this email. Thanks!

Ryan

~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Ryan Olah

Coast Bay Division Supervisor
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, CA 95825
(916) 414-6623

From: Tovar, Michelle <Michelle.Tovar@stantec.com>
Sent: Tuesday, September 10, 2024 3:30 PM
To: Olah, Ryan <ryan_olah@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; Kelly Strain <KStrain@capstoneinfra.com>; Lauren McLeod <LMcLeod@capstoneinfra.com>; Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Subject: [EXTERNAL] SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

Hello Ryan,

Hope everything is well!

I just wanted to get this initiation of consultation in front of you from Matthew at the Corps.

When you have a moment, can you please let me know who in your branch we may be working with, so we can try and coordinate with them.

Happy to answer any questions,

Thank you!
Michelle

I'll be out of the office 9/12-9/17
Michelle Tovar (she/her)
Sr. Principal Biologist – Practice Leader
Environmental Services
Stantec
555 Capitol Mall, Suite 650
Sacramento CA 95814-4583
Cell: (916) 213-8053
Michelle.Tovar@stantec.com
~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Stantec

Facebook Twitter LinkedIn YouTube Twitter

From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Friday, September 6, 2024 2:38 PM
To: SFWO_mail@fws.gov <SFWO_mail@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; lmcleod@capstoneinfra.com <lmcleod@capstoneinfra.com>
Subject: SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

[CAUTION: External email. Think before you click links or open attachments.]
This document is provided on behalf of the Regulatory Division, Sacramento District, U.S. Army Corps of Engineers.

Respectfully,

Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
U.S. Army Corps of Engineers
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From: Tovar, Michelle
To: Olah, Ryan
Subject: RE: [EXTERNAL] Informal tech assistance/brain storm meeting
Date: Wednesday, March 6, 2024 3:29:00 PM

Thanks! 21st, 10-11 works for us. Will send you an invite!

Michelle Tovar (she/her)
Sr. Principal Biologist – Practice Leader
Environmental Services
Stantec
555 Capitol Mall, Suite 650
Sacramento CA 95814-4583
Cell: (916) 213-8053
Michelle.Tovar@stantec.com

From: Olah, Ryan <ryan_olah@fws.gov>
Sent: Wednesday, March 6, 2024 2:44 PM
To: Tovar, Michelle <Michelle.Tovar@stantec.com>
Subject: Re: [EXTERNAL] Informal tech assistance/brain storm meeting

Hi Michelle-I am free for a meeting in my office on March 14 from 9-11 or from 2-4, on March 21 from 10-12 or March 28 from 9-10. Let me know if any of those times work for you. Thanks!

Ryan

Ryan Olah

Coast Bay Division Supervisor
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, CA 95825
(916) 414-6623

From: Tovar, Michelle <Michelle.Tovar@stantec.com>

Sent: Wednesday, March 6, 2024 12:43 PM
To: Olah, Ryan <ryan_olah@fws.gov>
Subject: [EXTERNAL] Informal tech assistance/brain storm meeting

Hi Ryan,

Myself and another consultant wanted to see if you had time for an informal meeting.

Remember the call where we discussed the alameda solar battery project? I wanted to see if we can present some basic info on the project with you and brainstorm some ideas of what we might do etc.

We can come meet you in your office Wed or Thursdays or we can meet at my office downtown another day etc if you like.

Can you give me some days/times you may have free for us to meet you in person for the next few weeks?

Thank you!
Michelle

Michelle Tovar (she/her)
Sr. Principal Biologist – Practice Leader
Environmental Services
Stantec
555 Capitol Mall, Suite 650
Sacramento CA 95814-4583
Cell: (916) 213-8053
Michelle.Tovar@stantec.com

From: Tovar, Michelle
To: ryan_olah@fws.gov
Cc: Cameron Johnson; Kelly Strain; Lauren McLeod; Di Loreto, Matthew J CIV USARMY CESPK (USA)
Subject: SPK-2024-00486 Potentia-Viridi Battery Energy Storage System
Date: Tuesday, September 10, 2024 3:30:00 PM
Attachments: 2024.09.06-ESA-F Consult Req CA-202400486.pdf
Enclosure 1-ESA-F Consult Req CA-202400486.pdf

Hello Ryan,

Hope everything is well!

I just wanted to get this initiation of consultation in front of you from Matthew at the Corps.

When you have a moment, can you please let me know who in your branch we may be working with, so we can try and coordinate with them.

Happy to answer any questions,

Thank you!
Michelle

I'll be out of the office 9/12-9/17

Michelle Tovar (she/her)
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From: Di Loreto, Matthew J CIV USARMY CESPK (USA) <Matthew.J.DiLoreto@usace.army.mil>
Sent: Friday, September 6, 2024 2:38 PM
To: SFWO_mail@fws.gov <SFWO_mail@fws.gov>
Cc: Cameron Johnson <cjohnson@integral-corp.com>; lmcleod@capstoneinfra.com <lmcleod@capstoneinfra.com>
Subject: SPK-2024-00486 Potentia-Viridi Battery Energy Storage System

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This document is provided on behalf of the Regulatory Division, Sacramento District, U.S. Army Corps of Engineers.

Respectfully,

Matthew Di Loreto
Regulatory Project Manager, CA Delta Section
Regulatory Division, Sacramento District
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