DOCKETED	
Docket Number:	24-OPT-04
Project Title:	Potentia-Viridi Battery Energy Storage System
TN #:	264164
Document Title:	CEC Data Request #2 - Biological Resources Response Part 3 of 4
Description:	This document responds to the CEC's 4/7/25 second deficiency request as it relates to Biological Resources. This is part 3 of 4.
Filer:	Ronelle Candia
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	6/10/2025 10:11:42 AM
Docketed Date:	6/10/2025

Attachment 5

Nesting Bird Management Plan

Nesting Bird Management Plan

Potentia-Virdi Battery Energy Storage System Facility Project

JANUARY 2025

Prepared for:

LEVY ALAMEDA, LLC

Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024

Printed on 30% post-consumer recycled material.

Table of Contents

SECTION **PAGE NO.**

TABLE

FIGURE

INTENTIONALLY LEFT BLANK

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BESS	Battery Energy Storage
CDFW	California Department of Fish and Wildlife
CFGC	California Fish and Game Code
cy	Cubic yards
kV	Kilovolt
HVAC	Heating, ventilation, and air conditioning
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MV	Medium voltage
MW	Megawatt
NML	Nest Management Log
O&M	Operations and maintenance
POCO	Point of Change of Ownership
PCS	Power Conversion System
PG&E	Pacific Gas and Electric
Project	Potentia-Viridi Battery Energy Storage System
Plan	Nesting Bird Management Plan

INTENTIONALLY LEFT BLANK

1 Introduction

This Nesting Bird Management Plan (Plan) describes the measures to be taken by Levy Alameda, LLC and its contractors to avoid impacts to migratory birds and raptors in accordance with federal, state, and local regulations during construction of the Potentia-Viridi Battery Energy Storage System Project (Project).

The Plan identifies nest survey protocols and methodologies, management considerations to avoid nesting birds and their nests, eggs, and chicks, and monitoring and reporting requirements to document compliance with federal, state, and local regulations.

Migratory birds and raptors are sensitive biological resources pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC). This Plan was developed to assist with compliance pursuant to those standards.

1.1 Purpose of the Nesting Bird Management Plan

The purpose of this Plan is to provide by Levy Alameda, LLC and its contractors with the process and protocol that will be implemented to comply with the measures outlined in MM-BIO-2 and MM-BIO-3. This Plan provides specific information for implementing MM-BIO-5 and MM-BIO-9 as well as the means of monitoring the effectiveness of the Plan during Project construction. The management practices and activities in this Plan are intended to accomplish the following objectives:

- Avoid impacts to migratory birds and raptors
- Maintain consistency with the MBTA and the CFGC

1.2 Project Description

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~~ 102 acres in eastern Alameda County. The primary components of the Project include an up to 3,200 megawatt-hour (MWh) battery energy storage system (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.

1.3 Project Location

The Project site is located at 17257 Patterson Pass Road, Tracy, CA 95377. The property is southwest of Interstate 580 and Interstate 205 on a portion Alameda County Assessor's Parcel Number 99B-7890-002-04. The ~~evaluation area for the~~ 102-acre Project area consists of an approximately ~~60~~ 69-acre Lease Area where the BESS facility will be located and an~~s with~~ approximately 32.7-acre~~s of~~ gen-tie ~~line~~evaluation area. Permanent and temporary ground disturbances will be limited to 60.7 acres and 6.7 acres (respectively) within the 102-acre Project area. The gen-tie line would extend southeast from the Project substation, crossing Patterson Pass Road, and then proceed east to the Tesla Substation. The Project's gen-tie line would be sited on APNs 99B-7890-2-4, 99B-7890-2-6, and 99B-7885-12. The Project site has land use and zoning designation of Agriculture. The area surrounding the Tesla Substation is sparsely developed for residential use, with the nearest residence, which is also owned by the same landowner leasing the area for the Project's gen-tie line, is approximately 1,500 feet southeast of the Project site and 560 feet south of the proposed gen-tie line.

1.4 Project Components

Project components include the 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, and an Operations and Maintenance Building. This section provides details of each component.

- **Battery Energy Storage System (BESS).** The energy storage facility would utilize a modular and containerized BESS. The initial Project concept has been developed assuming lithium iron phosphate (LFP) cells. It is anticipated ESS enclosure height will not exceed 12 feet. The structures may also have a heating, ventilation, and air conditioning (HVAC) system for optimal performance and safety.
- **Power Conversion Systems (PCS).** 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.
- **Project Substation.** A Project substation is anticipated to be constructed adjacent to the BESS facilities. The power to and from the BESS would be passed through a final interconnection step-up transformer to convert it from 34.5 kV to 500-kV high-voltage for delivery to the PG&E Tesla Substation.
- **Telecommunications Facilities.** Fiber-optic cables will be used to connect the Project site switchyard with the PG&E point of interconnection and to existing fiber-optic lines for remote monitoring. Fiber optic cable may require trenching for installation or it may be place on poles or a combination of both.
- **Access Roads.** Access to the Project site would be provided via new private driveways to the north of the site, off of Patterson Pass Road and to the southeast of the site, off of Patterson Pass Road.
- **Laydown Yards.** One laydown yard would be maintained just north of the central project substation area. This yard would be used during both construction and operation of the BESS facility.
- **Site Security, Lighting, and Fencing.** The Project would be enclosed at the perimeter by a 6-foot to 8-foot-tall security fence. Lighting would only be in areas where it is required for safety, security, or operations. Security cameras will be placed on site and monitored 7 days a week and 24 hours per day.
- **Fire detection system.** Multiple fire detection systems will be installed on-site and within the individual BESS enclosures including an infrared camera system and an onboard battery management system (BMS). In the event of an anomaly, the system will shut down and mitigate the hazard. The BESS enclosures are

designed and constructed in such a way that fire would not propagate from one enclosure to a neighboring enclosure in the event of a thermal runaway.

- **Operations and Maintenance Building.** An O&M building would be constructed within the primary laydown yard for the Project's anticipated three full-time operations staff
- **Generation Tie-Line.** Electrical energy would be transmitted to and from the Project substation to the existing Tesla PG&E Substation through a proposed 500-kV gen-tie line. The gen-tie line would extend southeast from the facility to the Tesla PG&E Substation.

1.5 Project Schedule

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. Environmental clearance surveys would be performed at the Project site prior to commencement of construction activities. Construction activities would include the following:

- **Site preparation.** Prior to construction, environmental clearance surveys would be performed. Erosion and sediment control measures will be installed prior to the start of major earthworks activities. Rough grading and grubbing/vegetation removal would be performed. Detention basins and stormwater facilities would be created for hydrologic control. Stabilized construction entrances and exits would be installed.
- **Site Grading and Civil Work.** Grading is anticipated to 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. The BESS facility site access roads and driveways would be graded, compacted, and surfaced with gravel or aggregate. The project perimeter fence and access gates would then be constructed.
- **Foundations and Underground Equipment Installation.** A grounding grid and underground conduit would be installed below grade beneath the project substation area and BESS components. The main power transformers (MPTs) 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. Additional underground work would include trenching for the placement of underground electrical and communications lines.
- **BESS and Project Substation Equipment Installation.** Major equipment would be delivered and offloaded directly into place with a crane or heavy equipment when possible or stored at one of the laydown areas near its permanent location and installed at a later date. Electrical wiring would be installed underground, at-grade, and above ground, depending on the application and location.
- **Gen-Tie Structure Erection.** The transmission structure access path may be bladed, compacted, and surfaced with gravel where necessary to facilitate access. Cast-in-place concrete foundations would be installed. Fiber optic utility poles would be direct embedded in holes up to 8 feet deep.
- **Gen-Tie Stringing and Pulling.** Conductors would be strung between transmission structures and cables would be pulled through one segment of the transmission line at a time.

- **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.
- **Testing and Commissioning.** After installation, equipment will be tested and commissioned. Commissioning work will be completed by qualified personnel.

2 Regulatory Framework

Several laws and regulations have been enacted in the United States and in California that provide protections for avian species; these are described in the following sections.

2.1 Federal

2.1.1 Migratory Bird Treaty Act

The federal MBTA makes it unlawful, except as formally permitted, to "take" (pursue, hunt, take, capture, or kill) migratory birds except under permits for special situations such as imminent threat to human safety or scientific research. The law currently applies to more than 1,000 species, including most native birds, and covers the destruction or removal of active nests of those species.

2.1.2 Bald and Golden Eagle Protection Act

Bald and golden eagles, their eggs, and their nests receive additional protection under the Bald and Golden Eagle Protection Act (16 United States Code 668 - 668d, 54 Stat. 250 and Amendments). The Bald and Golden Eagle Protection Act states, "no person shall take, possess, sell, purchase, barter, offer for sale, transport, export, or import any bald or golden eagle alive or dead, or any part, nests or eggs, thereof without a valid permit to do so."

2.2 State

The California Environmental Quality Act and CFGC wildlife protection laws require that government agencies develop standards and procedures necessary to maintain, protect, restore, and enhance environmental quality (including fish and wildlife populations and plant and animal communities), and to ensure that projects comply with these laws. CFGC sections that relate to protection of avian and wildlife resources and are relevant to the Project are listed below:

- **Bird Nests or Eggs, Fish and Game Code 3503; Birds of Prey and Their Eggs, Fish and Game Code section 3503.5; Migratory Birds, Fish and Game Code Section 3513:** These CFGC sections protect all birds, birds of prey, and all nongame birds, as well as their eggs and nests, for species that are not already listed as fully protected and that occur naturally within the state. Sections 3503 and 3503.5 of the CFGC stipulate the following regarding eggs and nests: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by CFGC or any regulation made pursuant thereto. Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by CFGC or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

- **Fully Protected Species, Fish and Game Code Section 3511:** The legislature of the State of California designated certain species as "fully protected" prior to the creation of California Endangered Species Act. Section 3511 states that "fully protected" birds or parts thereof may not be taken or possessed at any time. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, mammals, amphibians and reptiles, and birds.

2.3 Mitigation Measures BIO-5, BIO-6, BIO-7, and BIO-8

Primarily, this Plan is intended to comply with the measures outlined in MM-BIO-5, MM-BIO 6, MM-BIO-7, and MM-BIO-8, which state the following:

MM-BIO-5 Pre-Construction Northern Harrier, White-Tailed Kite, and Nesting Bird Surveys and Avoidance.

Construction activities shall avoid the migratory bird nesting season (typically February 1 through August 31) to reduce any potential significant impact to birds that may be nesting in the Study Area, including northern harrier and white-tailed kite.

If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project Boundary and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests.

The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513.

If an active bird nest is found, the nest shall be flagged and mapped on the construction plans, along with an appropriate buffer established around the nest.

If any active nests are observed during surveys, the nest area shall be demarcated in the field with flagging and stakes or construction fencing, and mapped on the construction plans along with a species appropriate buffer established by a qualified biologist. The buffer distance will range from 25 to 500 feet dependent upon factors such as topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests should be established in the field with flagging, fencing, or other appropriate barriers and should be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. The qualified biologist should be responsible for monitoring all nests that are found within the Project Study Area once construction work is initiated. Nests should be monitored within the following distances until the final nest outcome is determined (i.e., fledged or failed):

a. - 150 feet for passerines and other non-raptors
b. - 500 feet for raptors and owls
c. - 250 feet for occupied burrowing owl burrows
d. - 500 feet for federally and/or state-listed species unless otherwise specified by protocol-level surveys described in BIO-MM-6, -7. and -8.

If the qualified biologist determines that the recommended buffer may not avoid disturbance that could cause a nest failure, the biologist should recommend additional measures (e.g.,

increased buffer width, noise or visual barriers, work intervals, stopping work as needed, or allowing only specific work types). These measures should be implemented on a case-by-case basis to minimize impacts to nesting birds and may be based on site-specific conditions and work requirements. The qualified biologist should use behavioral cues that indicate nest disturbance (e.g., time off the nest, hesitation approaching the nest, incessant chattering, bill swiping, or other unusual behavior) to determine the buffer's effectiveness. All potential sources of nest disturbance should be assessed and documented, including non-construction activities (e.g., interspecific, and conspecific interactions and depredation) and non-Project-related activities (e.g., traffic and recreational activities).

If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest should be halted as needed until the Project biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged, limitations on construction activities that generate substantial vibration and/or noise levels, and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.

Vegetation or trees planned for removal should be removed during the period of September through January, to avoid the nesting season. If the season cannot be avoided, measures should be implemented to avoid take of birds or nests prohibited by the MBTA and the FGC. Any trees that are to be removed during the nesting season, which is February through August, should be surveyed by a qualified biologist and should only be removed if no nesting migratory birds are found. If vegetation removal activities are delayed, additional nest surveys should be conducted such that no more than 7 days elapse between the survey and vegetation removal activities.

MM-BIO-6 Pre-Construction Golden Eagle Surveys and Avoidance:

If nesting golden eagles are determined to be present within the Study Area or within 2 miles of the Study Area during construction of the Project, work should be conducted outside of the nesting season (February 1 to September 1).

a. Pre-construction surveys for nesting golden eagle will be conducted within 2 miles of the Study Area where accessible. The survey will be performed by a qualified biologist familiar with golden eagle biology and will follow recommendations outlined in the *USFWS Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al. 2010).

b) If an active nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone should be established by a qualified biologist. The no-activity zone should be large enough to avoid nest abandonment and alleviate any impacts (e.g., noise, dust) and should be a minimum of 500 feet and up to 1 mile from the nest. On-going monitoring by a qualified biologist may be required to ensure no impacts to this species and its habitat.

c) If an effective no-activity zone cannot be established in either case, an experienced raptor biologist should develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of

the eagles, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the eagles.

MM-BIO-7 Pre-Construction Swainson's Hawk Surveys and Avoidance. Implementation of the following pre-construction survey and nest avoidance buffers will avoid potential adverse effects to Swainson's hawk that may breed in the project vicinity:

a) Pre-construction surveys for nesting Swainson's hawk will be conducted within 0.5 mile of the Study Area where accessible. The survey will be performed by a qualified biologist familiar with Swainson's hawk biology and will follow recommendations outlined in the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SHTAC 2000).

b) If active Swainson's hawk nests are identified, an avoidance buffer of 0.5 mile shall be established around active nests consistent with the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California (CDFG 1994). No construction within avoidance buffers shall be allowed until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). If it is not feasible to maintain a 0.5-mile buffer for an active Swainson's hawk nest to reasonably accommodate construction, maintenance, or decommissioning activities, the established buffer distance may be reduced through coordination with CDFW. Project activities within the reduced buffer shall be monitored at the discretion of a qualified biologist and based on coordination with CDFW.

3 Nest Survey Protocol

Nest surveys will be conducted by visually inspecting all ground, shrubs, trees, cliffs, rock outcrops, and artificial structures suitable for nesting. The survey area will be inspected by qualified biologists using visually overlapping pedestrian transects, spaced approximately 30 to 100 feet apart based on existing topography, conditions, and vegetation to identify nesting birds and their nests.

Surveys will be conducted within 72 hours of the start of construction scheduled to occur during the avian nesting season (February 1 to September 1).

Surveys will be conducted within the specified survey areas detailed above in MM-BIO-5 through MM-BIO-8 for passerines and raptors, respectively, from all areas proposed for construction activities. A survey for golden eagles will also be conducted within 2-miles of the Project. All nests discovered during these surveys will be logged on a Nest Monitoring Log (NML) and updated per the nest management details described in Section 3.

The NML will include a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. For all nests discovered, a qualified biologist will determine if construction activities could potentially disturb nesting birds and will implement appropriate impact avoidance measures (for example, on-site monitoring, setbacks, timing restrictions) to adequately protect nesting birds as described in Section 3. Nest status will be designated as follows:

- Active –Incubating or chick-rearing behavior are observed and/or eggs or nestling/fledgling chicks are observed.
- Inactive – No sign of activity as described for active nests.
- Undetermined – Status cannot be determined for any reason (for example, conditions unsafe to assess, view into nest not available, length of time nest observed insufficient to document status). Undetermined nests will be monitored as active until otherwise determined inactive.

INTENTIONALLY LEFT BLANK

4 Nest Management

If active or undetermined status nests are detected during the preconstruction survey, a no-disturbance buffer will be established, and site-specific nest monitoring will be implemented. Standard buffer widths are based on a nesting bird management plan created by the California Public Utilities Commission (CPUC) in collaboration with a Technical Working Group consisting of members of the BLM, USFWS, CDFW, Southern California Edison, and Aspen Environmental Group for a large project in the same region (CPUC 2019). The standard buffer size for specific avian groups is defined in Table 1 below and can be increased or decreased in the field, determined by a qualified avian biologist (avian biologist).

Recommended standard nest buffers will be applied to each active or undetermined-status nest; however, the biologist may expand or reduce this limit based on factors such as nesting chronology of the species, existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise), type and extent of construction activity disturbance (noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations), visibility of construction activity disturbance, duration and timing of construction activity disturbance, influence of other environmental factors, and the species' site-specific level of habituation to the construction activity disturbance. For nesting avian species, buffers may be reduced to smaller buffers through the following process:

1. The construction contractor will request a buffer reduction to the on-site biologist, describing the proposed work activity within the default nest buffer, reason the work activity must be completed while the nest remains active, and approximate period of proposed buffer reduction.
2. Once the request for a buffer reduction is received from the construction contractor, the biologist will review the nest status and the need for the reductions with the contractor. Potential avoidance of the buffer reduction will be evaluated (e.g., by staging equipment in a different location). Wherever feasible, proposed work activities and locations will be adjusted to avoid or minimize incursion into the buffer area.
3. The biologist and Project team will evaluate the request and determine whether a reduced buffer can be applied. The decision will be based on the documented nest information and site-specific conditions such as distance to construction, type of construction activity disturbance, anticipated duration of construction activity disturbance, microhabitat at the nest location that may provide visual and acoustic barriers, behavior of the pair, its reproductive stage, the species' natural history, species' known tolerances to human presence and construction activities, proposed buffer reduction distance and start and end dates, and anticipated work activities and durations.

An NML will be completed for each active nest, and a map or aerial photograph identifying the location of the nest and the boundaries of the no-disturbance buffer zone around the nest will be generated.

Active/undetermined-status nests will be monitored at regularly and logged in the NML until such time that the avian biologist determines that the nestlings have fledged and dispersed or that the nest is otherwise no longer active. Nests detected in areas causing significant delays to construction may be monitored at shorter intervals to potentially expedite construction in those areas. Bird nest locations will be mapped using a GPS unit and will be recorded in the NML. All construction activities that might, in the opinion of the biologist, disturb nesting activities will be prohibited within the nest buffer. If the biologist determines that certain construction activities are allowed within the nest buffer (i.e., walking within buffer, equipment/tool drop off, etc.), the biologist will monitor the nest

during these activities to ensure activities are not impacting the nesting birds. Construction activities will cease if the biologist determines that the nesting birds are agitated. At the completion of construction activities within the buffer, the nest buffer will be restored to its original distance.

Any nests found in or adjacent to disturbance areas will be flagged and the area around the nest will be protected by a nest buffer from construction equipment and disturbance, per the appropriate nesting buffer width for the species, with high-visibility flagging tape to demarcate sensitive habitat. No work activities will be conducted within the designated nest buffers as identified by the biologist. Application of the appropriate buffer width should minimize any disturbance to the nesting behavior and avoid the potential for Project-related nest abandonment and failure of fledging. Each nest buffer will be maintained until construction activities have been completed, or until nesting is complete, and would then be removed.

If Project activities cause or contribute to a bird being flushed from the nest, the buffer will be increased and actions taken will be documented in the NML. Likewise, if activities cause nest failures, the standard buffer width for that species may be increased.

Table 1. Standard Buffers for Avian Groups

Avian Group	Species Potentially Nesting within Construction Site	Standard Buffer for Ground Construction
Waterfowl and rails	Canada goose, wood duck, mallard, cinnamon teal, ruddy duck, Virgnia rail, Sora, American coot, pied-billed grebe	150 feet
Quail	California qual, Gambel's quail	150 feet
Herons	Great blue heron, great egret, snowy egret, cattle egret, black-crowned night-heron	250 feet
Birds of prey (Category 1)	American kestrel, barn owl, western screech-owl	300 feet
Birds of prey (Category 2)	Osprey, Cooper's hawk, red-tailed hawk (some urban/suburban), red-shouldered hawk, great horned owl, burrowing owl	300 feet (burrowing owl buffers will be based upon the CDFW 2012 Staff Report on Burrowing Owl Mitigation)
Birds of prey (Category 3)	Turkey vulture, red-tailed hawk (some rural/remote), white-tailed kite, northern harrier, long-eared owl	500 feet
Birds of prey (Category 3)	Peregrine falcon, prairie falcon	Consult CDFW and USFWS
Eagles	Golden eagle	1 mile line of sight; 0.5 mile no line of sight
Shorebirds	Killdeer	200 feet
Pigeons	Band-tailed pigeon	150 feet
Doves	Mourning dove, white-winged dove, common ground-dove	150 feet
Roadrunners	Greater roadrunner	300 feet
Nightjars	Lesser nighthawk, common poorwill	150 feet
Swifts	White-throated swift	200 feet
Hummingbirds	Black-chinned hummingbird, Anna's hummingbird, Costa's hummingbird, Allen's hummingbird	100 feet

Table 1. Standard Buffers for Avian Groups

Avian Group	Species Potentially Nesting within Construction Site	Standard Buffer for Ground Construction
Woodpeckers	Acrorn woodpecker, ladder-backed woodpecker, Nuttall's woodpecker, downy woodpecker, northern flicker	150 feet
Passerines (cavity and crevice nesters)	Say's phoebe, ash-throated flycatcher, brown-crested flycatcher, tree swallow, rock wren, canyon wren, house wren, Bewick's wren, mountain chickadee, oak titmouse, western bluebird	100 feet
Passerines (bridge, culvert, and building nesters)	Black phoebe, Say's phoebe, northern rough-winged swallow, cliff swallow, barn swallow, house finch	100 feet
Passerines (ground nesters, open habitats)	Horned lark, rock wren, western meadowlark, orange-crowned warbler, lark sparrow, grasshopper sparrow	150 feet
Passerines (understory and thicket nesters)	Bushtit, blue-gray gnatcatcher, black-throated gray warbler, yellow-breasted chat, spotted towhee, black-chinned sparrow, sage sparrow, song sparrow, black-headed grosbeak, blue grosbeak, lazuli bunting, American goldfinch	150 feet
Passerines (shrub and tree nesters)	Pacific-slope flycatcher, Cassin's kingbird, western kingbird, Hutton's vireo, western scrub-jay, American crow, common raven, verdin, bushtit, black-tailed gnatcatcher, blue-gray gnatcatcher, American robin, northern mockingbird, Le Conte's thrasher, phainopepla, yellow warbler, black-throated gray warbler, yellow-breasted chat, California towhee, black-throated sparrow, song sparrow, summer tanager, great-tailed grackle, hooded oriole, Bullock's oriole, house finch, Lawrence's goldfinch	150 feet
Passerines (shrub and tree nesters)	Loggerhead shrike, cactus wren	300 feet
Passerines (open scrub nesters)	Wren tit, California thrasher, southern rufous-crowned sparrow, black-throated sparrow, lesser goldfinch	150 feet
Passerines (tower nesters)	Western kingbird, common raven	150 feet
Passerines (marsh nesters)	Common yellowthroat, red-winged blackbird, great-tailed grackle	150 feet
Passerines (marsh nesters)	Tricolored blackbird	300 feet
Species not covered under the MBTA	Domestic waterfowl, including domestic mallards, feral (rock) pigeon, ring-necked pheasant, chukar, Eurasian collared-dove, spotted dove, parrots, parakeets, European starling, house sparrow	N/A

INTENTIONALLY LEFT BLANK

5 Nest Monitoring and Reporting

All nests discovered will be documented in the NMLs as needed (preferably weekly but could be more or less often depending on the proximity of the nest to the work area). Nests will be monitored from an appropriate distance with binoculars until the biologist has determined that the nest has failed or fledged, and approaching the nest will be kept to a minimum. Each nest will be located using GPS, given a unique identification number for tracking purposes, and any action taken to protect the nest will be described, including but not limited to creating a buffer zone. NMLs will be updated at each monitoring event to reflect the status of the nest and any comments, observations, or actions taken. The NMLs will serve as documentation of the Project's compliance with CFGC Sections 3503, 3503.5, 3511, and 3513. Nest failures that occur will be reported in the NMLs. Nest failures that appear to be the direct result of the construction activity will be reported within 48 hours of discovery, via phone call and/or email to the appropriate agency contacts.

INTENTIONALLY LEFT BLANK

6 Bird Use Deterrent Measures

Construction activities during the nesting season (February 1 through September 15) could adversely affect breeding birds through direct take or indirectly through disruption or harassment. Key avoidance and minimization measures to deter birds from using the site or Project structures during construction include the following:

- Worker Environmental Awareness Program: A Worker Environmental Awareness Program training will be conducted for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading. A full-time biological monitor will be onsite during vegetation clearing, grubbing, and grading, verifying that artificial light fixtures are directed away from open space and are shielded, limiting staging to designated areas to reduce the potential for birds to nest within staged materials and equipment, and flushing avian species from occupied habitat areas immediately prior to brush-clearing and earthmoving activities (Note: if brush-clearing and earth-moving activities take place within the bird breeding season, flushing will not occur).
- Netting or Tarps: Nets and/or tarps are a very effective way to prevent birds from entering and nesting in small crevices in construction equipment (i.e., excavators, lights, generators). If avian nesting is frequent, a tarp can be placed over equipment at the end of each work day to prevent birds from entering . If possible, netting should be avoided unless tarps are infeasible or unavailable.
- Best Management Practices: Best management practices, such as waste containment and capping the ends of construction material (pipe), are very effective in preventing birds from nesting in tight locations. On-site personnel should always place trash and waste in secured bins with closed lids to prevent attraction from birds. Pipe and other material on site (if applicable) should be capped when not in use to prevent birds from entering and nest building.

INTENTIONALLY LEFT BLANK

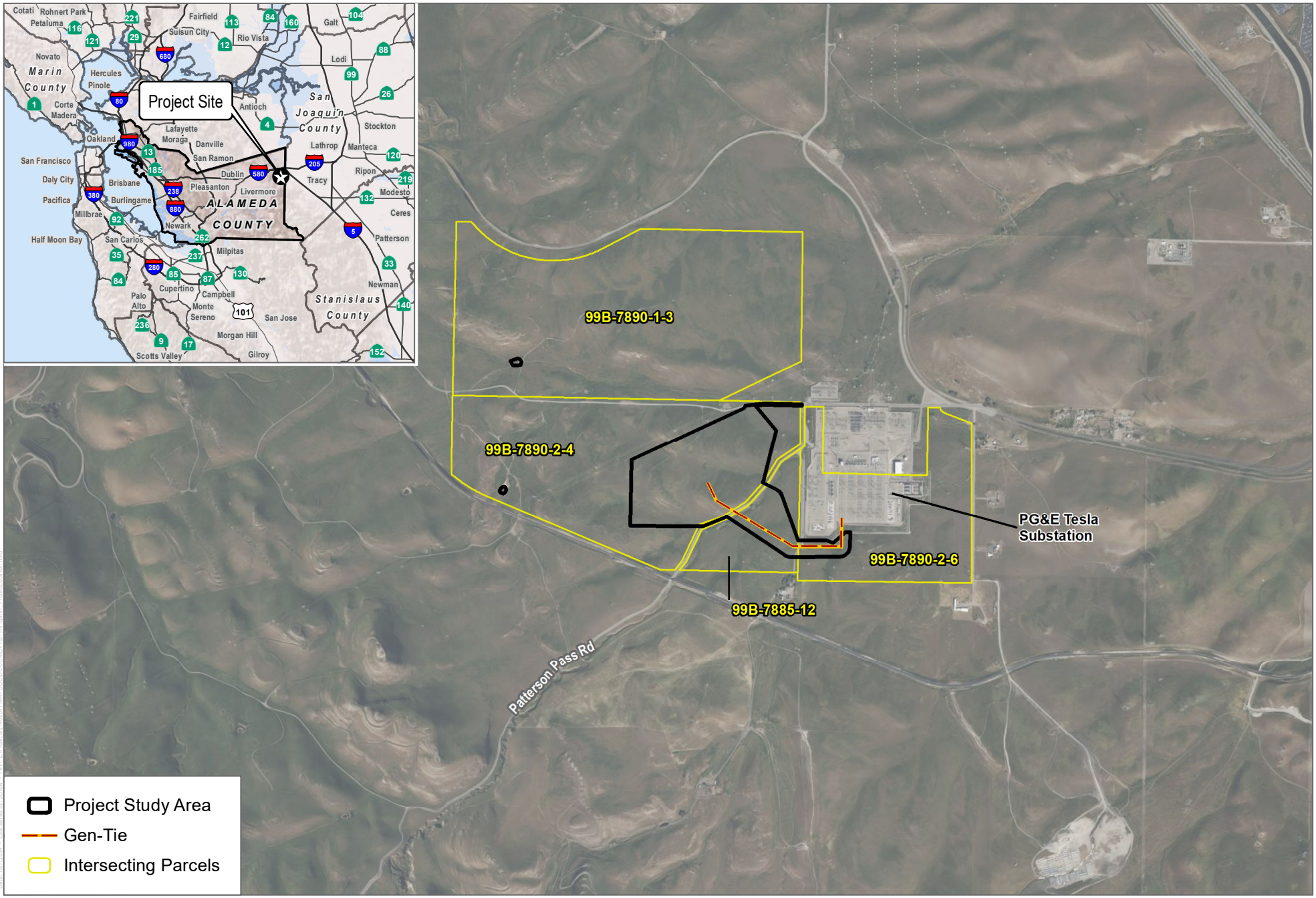
7 References

California Public Utilities Commission (CPUC). 2019. West of Devers Upgrade Project Nesting Bird Management Plan. September 2019.

Dudek. 2024. Draft Environmental Impact Report Potentia-Virdi Battery Energy Storage System Facility Project. June 2024.

Pagel, J.E., D.M. Whittington, and G.T. Allen. 2010. *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations*. Division of Migratory Bird Management, U.S. Fish and Wildlife Service. Sacramento, California. February 2010.

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2024, Open Street Map 2019

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Potentia-Viridi Battery Energy Storage System Project, Alameda County, CA

INTENTIONALLY LEFT BLANK

Attachment 6

Temporary Impact Revegetation and Habitat Restoration Plan

Temporary Impact Revegetation and Habitat Restoration Plan

Potentia-Viridi Battery Energy Storage System Facility Project

~~**JULY 2024**~~**MAY 2025**

Prepared for:

LEVY ALAMEDA, LLC
c/o Capstone Infrastructure Corporation
155 Wellington Street West, Suite 2930
Toronto, Ontario M5V 3H1, Canada
Contact: Lauren McLeod

Prepared by:

DUDEK
853 Lincoln Way, Suite 105
Auburn, California 95603
Contact: Beth Wilson-Hayes

Printed on 30% post-consumer recycled material.

Table of Contents

SECTION **PAGE NO.**

TABLES

FIGURES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
amsl	above mean sea level
Applicant	Levy Alameda, LLC
BESS facility	Potentia-Viridi Battery Energy Storage System Facility
BMP	best management practice
Cal-IPC	California Invasive Plant Council
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
~~EIR~~	~~Environmental Impact Report~~
ESA	Environmentally Sensitive Area
gen-tie	overhead intertie transmission
kV	kilovolt
MW	megawatt
MWh	megawatt-hour
NWI	National Wetlands Inventory
O&M	operations and maintenance
PEP	plant establishment period
PG&E	Pacific Gas and Electric
POI	Point of Interconnection
QSP	Qualified Stormwater Practitioner
SWPPP	Stormwater Pollution Prevention Plan
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRCC	Western Regional Climate Center

INTENTIONALLY LEFT BLANK

1 Introduction

This Temporary Impact Revegetation and Habitat Restoration Plan (Plan) outlines the on-site revegetation strategy for the proposed Potentia-Viridi Battery Energy Storage System Facility (BESS facility) Project (Project), in Alameda County, California. This Plan identifies the approach for habitat restoration in temporary impact areas (Restoration Project) associated with Project construction. The Plan outlines Project temporary impacts, restoration implementation actions, success criteria, monitoring and maintenance, and reporting in support of Project's AB 205 application process and in conformance with mitigation measures included in the ~~Environmental Impact Report (EIR)~~Opt-in Application pursuant to the California Environmental Quality Act (CEQA) Guidelines.

1.1 Project Location

The Project would be in eastern unincorporated Alameda County, California within a portion of Assessor Parcel Number (APN) 99B-7890-002-04 located at 17257 Patterson Pass Road, southwest of Interstate 580 and Interstate 205 (Figure 1, *Regional Location* and Figure 2, *Project Site*). Development of the BESS facility would occur on approximately ~~70~~ 69.1 acres of APN 99B-7890-002-04, which is currently comprised of fallowed annual grasslands suitable for grazing. The gen-tie line would extend southeast from the Project substation, crossing Patterson Pass Rd, and then proceed east to the Point of Interconnection (POI) at the Tesla Substation. The Project's gen-tie line would be sited on approximately 32.7-acres in APNs 99B-7890-2-4, 99B-7890-2-6, and 99B-7885-12. Land uses in the immediate vicinity of the Project include undeveloped rural agricultural lands, multiple high-voltage transmission lines and electrical substations, rural roads, and railroad lines. The nearest municipality to the Project site is the City of Tracy approximately 2.5 miles to the northeast. There are a few single-family residences near the Tesla Substation's southern and eastern boundaries. The nearest residence is about 1,500 feet southeast of the Project site and 560 feet south of the proposed gen-tie line; it is owned by the same landowner leasing the lands for the Project.

The Project location was selected due to it being large enough to support development of the Project, its proximity to existing electrical infrastructure and the Tesla Substation, thereby minimizing length of the proposed gen-tie line to the POI, and because it is located immediately adjacent to existing roadways for construction and O&M access.

1.2 Project Description

The Project would involve construction, operation, and eventually repower or decommission of the 400-megawatt (MW) BESS facility and associated infrastructure on approximately ~~85~~ 69.1 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.

1.2.1 Project Objectives

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.

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 CPUC'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.

1.2.2 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 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
- Medium voltage 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

1.3 Restoration Goals and Revegetation Requirements

The objective of on-site restoration is to restore vegetation communities that were temporarily impacted during Project construction activities. Restoration aims to foster growth of appropriate native plant species that were known to be present before impacts occurred, or that are otherwise deemed appropriate based on the respective sites' location and quality of surrounding habitats. The goal of this restoration/revegetation project are as follows:

1. Comply with the requirements outlined in the Project permits and in conformance with mitigation measures included in the CEQA document;
2. Revegetate temporary impact areas with vegetation communities of similar or higher functions and services than those vegetation communities temporarily impacted by the Project;
3. Ensure vegetation communities are self-sustaining and functional beyond the maintenance and monitoring period.

This Plan proposes to conduct revegetation activities within approximately 6.7 acres of temporarily impacted vegetation communities. Temporarily impacted vegetation communities will be mitigated in place at a 1:1 ratio per the requirements of the Project permits. Temporary impacts will be mitigated in-kind to restore vegetation communities to similar or higher functions than the baseline condition. Temporary impact revegetation areas will be subject to weed and invasive plant control, trash removal, erosion control, and seeding as necessary in accordance with this plan. Areas mapped as wild oats and annual brome grassland will be seeded with native plant species appropriate for local habitat conditions and climate and will be evaluated for success in accordance with their pre-project status as non-native grassland vegetation communities.

As described in Section 3.2, *Biological Resources*, of the Project-specific ~~Environmental Impact Report (EIR)~~Opt-in Application, biological surveys at the Project site indicate that several special-status plant and wildlife species have the potential to occur within the temporary impact revegetation areas. Of particular concern within the temporary impact revegetation areas is the potential for California red-legged frog (CRFL; *Rana draytonii*) and California tiger salamander (CTS; *Ambystoma californiense*) to use these areas for upland dispersal given the presence of suitable grassland habitat. Because these sites will be disturbed by construction activities prior to revegetation implementation, the potential for presence is reduced. However, to ensure full avoidance of CRFL and CTS as well as other special-status species that may occur, mitigation measures included in the ~~EIR~~ Opt-in Application will continue to be required until temporary impact areas are fully restored. Special-status species avoidance measures are discussed further below in Section 3.2.2.

INTENTIONALLY LEFT BLANK

2 Baseline Information

2.1 Regional Land Use Setting

The Project site is currently undeveloped, and the regional land use has remained largely unchanged since the 1980s based on aerial imagery (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 follows the eastern boundary; there is a railroad line to the south and a gravel access road to the north. The gen-tie alignment connecting the BESS facility to the PG&E substation crosses Patterson Pass Road, Patterson Run (an ephemeral stream channel), and runs northwest to southeast to the southwestern corner of the substation. The site and surrounding land have been used for cattle grazing. The area of the BESS facility and immediately south of the substation is not currently being grazed, while much of the gen-tie alignment is currently used as cattle pasture. The nearest city is Tracy, approximately 8 miles to the east.

2.2 Climate and Rainfall

The Project site is within a Mediterranean climate where annual temperatures range from 38.3°F to 92.6°F (Western Regional Climate Center [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.

2.3 Soil and Terrain

The Project site is relatively flat, with an approximate elevation of 403 to 536 feet above mean sea level (amsl). According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service, three soil types are present: Linne clay loam, 3% to 15% slopes; Linne clay loam, 15% to 30% slopes, MLRA 15; Rincon clay loam, 0% to 3% slopes, and Pescadero clay (USDA 2023a). 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 four soil types mapped on site are included on the USDA list of hydric soils (USDA 2023b) commonly associated with wetlands or other waters.

2.4 Hydrology and Watershed

The Project site occurs within the North Diablo Range of the Alameda Creek Watershed (U.S. Geological Survey [USGS] 2023). According to the U.S. Fish and Wildlife Service (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 stream system crossing the Project site from south to north. Patterson Runn is an ephemeral stream system that runs parallel to Patterson Road adjacent to the Project site, which connects to the California Aqueduct systems to the north of the Project site.

2.5 Vegetation Communities

Only one vegetation community was mapped in the Project site: wild oats and annual brome grassland (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance; California Native Plant Society [CNPS] 2023; Figure 3, *Biological Setting*). 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 Project site.

3 Implementation Plan

This section describes the restoration activities that will be implemented for temporary impacts to vegetation communities following the completion of construction activities within the Project site. The temporary impact revegetation areas shall receive initial removal of invasive non-native species biomass and seeding of native species, followed by a three-year maintenance and monitoring program. Revegetation will be achieved through a process that includes delineation of the vegetation restoration boundaries, removal of gravel placed temporarily during Project construction activities, removal of weeds and invasive plant species, and restoration of soil contours to their pre-project condition. Following construction and prior to the installation of revegetation materials, soil compaction will be alleviated through ripping the top 12 inches of soil with ripping shanks spaced no further than 24 inches apart to provide suitable growing conditions for native plants. Excessive compaction and potential lack of topsoil availability may necessitate soil testing, importing topsoil, and/or soil amendments.

Upon conclusion of soil preparation work, the temporary impact revegetation areas will be seeded using the methods and species described herein. Following seeding, the temporary impact revegetation areas will be maintained by the Restoration Contractor during the 120-day plant establishment period (PEP) and for the three-year maintenance and monitoring period following approval of the PEP to ensure successful establishment and site cover. Each component of the implementation plan is outlined in more detail below.

3.1 Project Implementation Personnel

3.1.1 Permittee/Project Manager

Levy Alameda, LLC (Applicant) is the permittee and as such shall oversee mitigation implementation and shall be responsible for the successful completion of this mitigation and monitoring program. Program management shall be provided by the Applicant, who shall be financially responsible for implementation and management of this Restoration Project.

3.1.2 Project Biologist

A qualified restoration biologist (Project Biologist) shall implement the restoration and monitoring components of this Plan. The Project Biologist shall review all aspects of pertinent Project documents, including but not limited to site mapping, and submittals prior to Restoration Project implementation.

The Project Biologist shall oversee and coordinate implementation of this Plan and oversee/perform field monitoring of Restoration Project implementation and biological monitoring throughout the maintenance and monitoring period. The Project Biologist shall possess specific knowledge of restoration ecology and be able to demonstrate experience with similar mitigation projects. The Project Biologist shall possess at least 5 years of habitat restoration experience in the northern California/East Bay Area and within similar vegetation communities.

The Project Biologist shall inform all Project personnel of all on-site environmental and regulatory restrictions and conditions during implementation of this Plan. The Project Biologist shall inform all Project personnel of the presence or potential presence of sensitive species and vegetation communities within, or adjacent to, the Project area. Biological monitoring shall occur throughout implementation of this Restoration Project. Monitoring time may

increase or decrease as required by field conditions and implementation activities. During implementation, the Project Biologist, via the Applicant Project Manager, shall have authority to stop work in situations where biological resources not authorized to be impacted are in imminent danger of impacts from installation activities.

3.1.3 Restoration Contractor

A qualified Restoration Contractor shall implement the mitigation activities outlined in this Plan, including installation and maintenance. A contractor possessing a valid California-landscape contractor's license, who has previous experience with similar and successful native habitat restoration in the region shall provide restoration actions and associated labor. Restoration Contractor staff must be able to identify California native plants, target invasive non-native species, and demonstrate knowledge of habitat restoration techniques.

The Restoration Contractor shall be responsible for conformance to (1) this Plan and (2) the Project's permit requirements. The Restoration Contractor's responsibility for installation shall continue until successful completion and final acceptance by the Applicant and by the Project Biologist at the end of the initial implementation effort. The Restoration Contractor shall not be released from installation obligations until written notification is received from the Applicant that all required implementation tasks as defined in this Plan and the Project permits have been successfully completed. The Restoration Contractor shall conduct maintenance and remedial work during the monitoring and maintenance period as indicated herein and per the Project Biologist's recommendations.

3.2 Site Preparation

3.2.1 Site Access

Access to the site for revegetation shall be from existing disturbed areas within the Project site and shall not incur new impacts to vegetation communities. All proposed access routes shall be pre-approved by the Applicant and the Project Biologist. The restoration staff shall stake and fence access routes with orange Environmentally Sensitive Area (ESA) fencing if sensitive vegetation communities or sensitive biological resources are adjacent and at risk of impact.

3.2.2 Special-Status Species Avoidance

Based on biological surveys conducted for the Project including Protocol-Level Rare Plant, CRFL and CTS Habitat Assessment surveys, protocol-level burrowing owl (*Athene cunicularia*) surveys, several special-status plant and wildlife species have the potential to occur within the temporary impact revegetation areas. As a part of Project construction, several avoidance and minimization measures are required to avoid impacts or reduce impacts to these species to a less than significant level. Section 3.2, *Biological Resources*, of the Project-specific ~~EIR~~Opt-in Application includes mitigation measures MM-BIO-1 through MM-BIO-5 to reduce impacts to special-status plant and wildlife species during project construction. These requirements, including, but not limited to, special-status plant avoidance (MM-BIO-1), general avoidance measures for East Alameda County Conservation Strategy focal species (MM-BIO-2), and amphibian avoidance and minimization measures for CTS and CRLF during construction (MM-BIO-3), would continue to apply to the Project through completion of revegetation activities at the temporary impact revegetation areas.

These measures ensure that a qualified biologist survey's the temporary impact revegetation areas prior to revegetation activities and if individual CTS and/or CRLF are found, site work will not begin until the individuals are moved out of the area. Additionally, a USFWS approved biologist shall be present for initial ground disturbing activities and ESA fencing will be constructed around the revegetation areas to prevent individual CTS and/or CRLF from entering the work areas. Finally, among other avoidance measures, initial ground disturbance (i.e., removal of non-native species and soil preparation) should be prioritized in areas of suitable habitat for CTS and/or CRLF prior to October 15th (or the first measurable fall rain of 1 inch or greater).

~~3.2.2~~3.2.3 Revegetation Area Fencing

Following removal of construction infrastructure (e.g. gravel), temporary impact revegetation areas susceptible to traffic of any kind shall be delineated and protected by erecting barriers and/or signs as necessary to prevent ongoing disturbance. The Applicant and Project Biologist will determine the type of barriers (i.e. silt fencing or fiber rolls) needed to promote successful revegetation.

~~3.2.3~~3.2.4 Initial Removal of Non-Native Species

Implementation of this Plan shall include an initial non-native invasive plant and thatch removal effort, followed by regular control of new seedlings and re-sprouts over the maintenance period. The initial removal effort shall focus on all temporary impact revegetation areas. A combination of physical removal and herbicide treatment shall be used to control any non-native invasive plants that have recruited into the temporary impact areas since construction activities were completed. Weed eradication will be performed a minimum of 10 days prior to initiating seed application when herbicide is used.

Physical removal of non-native plants, including the roots, may be the best method for those plant species for which the rootball can readily be pulled out along with the aboveground portions of the plant. These species shall be physically removed before seed-set. If hand removal is possible only after seed-set, then seed heads shall be cut off, bagged, and removed from the site. Physical removal of the plants and their roots should only be done when non-native plants are growing separate from desirable natives and when their root systems are not intertwined.

Herbicides shall be used for the invasive exotic plant species that have root systems that regenerate from small root fragments or that are impractical to remove. Any herbicide use shall be conducted using methods that minimize effects to adjacent/desirable native species, such as brush application or spot spraying. Only herbicides registered for aquatic use can legally be used in locations where herbicide may come in contact with open water.

All herbicide treatment shall be performed in compliance with all applicable federal and state laws and regulations, safety precautions, and pesticide label directions. The Restoration Contractor shall possess a valid California Qualified Applicator Certificate or Qualified Applicator License, and Pest Control Business License or Maintenance Gardener Pest Control Business License, as appropriate. The Restoration Contractor shall refer to the specific pesticide label for information on proper timing, application rates, and use restrictions. Should the Restoration Contractor require a specific pest control recommendation for any control effort, the restoration staff shall consult a licensed Pest Control Adviser for a written recommendation.

Follow-up control measures will likely be necessary for invasive plant species with extensive root systems that cannot be killed with one herbicide application. Follow-up herbicide treatment shall be done at the biologically

appropriate time when the recovering plants are still relatively small and before they have time to regain strength and vigor, and will be conducted regularly as part of the maintenance portion of this Plan.

~~3.2.4~~3.2.5 Soil Preparation

Soil preparation prior to seeding will be prioritized to temporary impact revegetation areas where soil compaction is deemed problematic for plant establishment and growth by the Project Biologist, and to areas temporarily covered by a gravel surface. Soils shall be mechanically disced or ripped to alleviate compaction and provide a roughened soil surface. When necessary, track walking for soil compaction on slopes shall be conducted perpendicular to the anticipated flow of surface water runoff. All non-natural, inorganic debris will be removed from the temporary impact revegetation areas. If thatch remains on the soil surface that would inhibit seed-soil contact (e.g. >25% cover) thatch will be removed to below 25% cover. Locations that meet the objectives described in this section following construction will not require additional actions as approved by the Project Biologist.

3.3 Installation of Native Seed Mix

Seeding with an appropriate native seed mix will occur after the initial site preparation as described above in Section 3.2, has been completed. Seed mixes were selected with a focus on establishing native vegetation communities and controlling erosion and non-native plant species. Seed shall be locally collected or sourced from within 50 miles of the Project site to maintain genetic integrity.

Once the site has been appropriately prepared, seeding will occur via hydroseeding. Hydromulch shall be free of synthetic or plastic materials and contain no germination or growth inhibiting factors. It shall not contain more than 7 percent ash as determined by the Technical Association of the Pulp and Paper Industry Standard T 413 and shall contain less than 250 parts per million boron. It shall be colored with nontoxic water-soluble green dye to provide a proper gauge for the metering of material over ground surfaces. It shall have the property of being evenly dispersed and suspended when agitated in water. Water content of the hydromulch before being mixed into the slurry shall not exceed 15 percent of its dry weight and shall comply with the manufacturer's specifications. Hydromulch shall contain a tackifier. The slurry may be altered for site-specific needs if approved by the Project Biologist in consultation with the Applicant. In the case that hydroseeding is not considered necessary due to small revegetation area sizes, hand seeding may be considered for the revegetation areas. Any areas that receive hand seeding will be raked prior to and after seed distribution to maximize seed soil contact.

Revegetation areas are shown in Figure 4, *Revegetation Plan*. The temporary impact revegetation areas will be seeded using a native grassland mix to mimic native species and natural species composition present in nearby vegetation communities within the regional vicinity of the Project site. Table 1 outlines the proposed seed mix.

Table 1. Grassland Revegetation Seed Mix

Botanical Name	Common Name	Minimum PLS	Pounds Per Acre
Amsinckia intermedia	common fiddleneck	25%	3
Asclepias fascicularis	narrow leaf milkweed	50%	2
Bromus sitchensis var. carinatus	California brome	85%	6
Castilleja exserta	purple owl's clover	25%	0.5

Table 1. Grassland Revegetation Seed Mix

Botanical Name	Common Name	Minimum PLS	Pounds Per Acre
Croton setiger	doveweed	85%	1
Elymus triticoides	creeping wildrye	80%	6
Eschscholzia californica	California poppy	85%	1
Festuca microstachys	small fescue	85%	5
Hordeum brachyantherum	meadow barley	80%	6
Lasthenia californica	California goldfields	50%	0.5
Lupinus bicolor	bicolored lupine	90%	1
Melica californica	California melic	65%	6
Stipa pulchra	purple needlegrass	75%	6
		Total Pounds per Acre	**44**

3.3.1 Seed Application

The Project Biologist, or designee, shall inspect and approve the labels for the seed mix prior to mixing and application. Initial seed application shall consist of hydroseeding. The Restoration Contractor shall consult the Project Biologist and Applicant if a given species on the plant palette is not available for inclusion into the initial seed mix installation and the Project Biologist may recommend a substitute or increase the rate of selected species.

All seeds shall be clearly labeled showing type of seed, test date, the name of the supplier, and percentage of the following: pure seed, crop seed, inert matter, weed seed, noxious weeds, and total germination content. All material shall be delivered to the site in original, unopened containers bearing the manufacturer's guaranteed analysis. Installation implementation should be prioritized to occur prior to the onset of the winter rainy season, ideally between October and January. Installation timing will be coordinated between the Restoration Contractor, Project Biologist, and Applicant. Temporary irrigation is not planned for the temporary impact revegetation areas, so timing of the seeding after summertime temperatures have declined and prior to the onset of winter rainfall is critical for successful seed germination and establishment.

Hydroseeding shall take place within the temporary impact revegetation areas as shown in Figure 4 Seed application locations should be based on a combination of GPS data, field conditions, and communication with the Project Biologist.

3.4 Erosion Control

The hydroseed mix will be installed promptly after site preparation work is completed and following placement of any necessary erosion control materials (e.g. fiber rolls or silt fence). Fiber rolls will be composed entirely biodegradable material. They will be free of nylon/plastic netting and mesh and be certified free of noxious weeds. The location of the Best Management Practices (BMPs) within temporary impact revegetation areas will be determined by the Project Biologist and Applicant, and, or in accordance with the project's Stormwater Pollution Prevention Plan (SWPPP) and Qualified Stormwater Practitioner (QSP).

3.5 Revegetation Schedule

An outline of the anticipated revegetation installation sequence and schedule is provided in Table 2 below. Weed and invasive species removal, site cleanup, soil preparation and ripping, and BMP installation will occur prior to seed installation. Seed installation is best performed prior to the winter rainy season, between October and January, to maximize seed germination, seedling survival, and plant growth. In general, revegetation will begin within 30 days upon completion of construction activities. Erosion control will be performed continually as outlined in the project SWPPP until the Notice of Termination is filed and accepted. The three-year biological monitoring and maintenance period will commence upon completion of the 120-day PEP.

Table 2. Revegetation Schedule

Task Description	Anticipated Work Period
Order Seed	9–12 months prior to anticipated installation
Site preparation	Within 30 days of construction completion
Seeding	Within 60 days of construction completion
120-Day Plant Establishment Period (PEP)	Commence upon approval of all installation work
3-Year Maintenance and Monitoring program	Commence upon successful completion of 120-day PEP

4 Maintenance Plan

This maintenance plan section provides direction for maintenance and monitoring activities to be performed during the initial 120-day PEP and the three-year maintenance and monitoring period that follows. The three-year maintenance and monitoring period begins when the Project Biologist and Applicant certify that the revegetation installation work and 120-day PEP have been completed in conformance with this Plan and applicable environmental documents and Project permits. The three-year maintenance and monitoring period will include non-native plant species control, trash removal, general maintenance, and additional erosion control, as necessary. The temporary impact revegetation areas at the Project site shall be subject to the requirements specified in this Plan.

Since the goal of this Plan is to reestablish natural self-sustaining vegetation communities, the maintenance effort included in this Plan is concentrated in the first few seasons of plant growth following the restoration efforts, when weeds can easily out-compete native plants. The intensity of required maintenance activity is expected to subside each year as the native plant materials become more established and localized competition from non-native plants for resources in the temporary impact revegetation areas is minimized through control of non-native plants.

4.1 120-Day Plant Establishment Period

The Restoration Contractor will begin the 120-day PEP following completion and acceptance of the revegetation installation work. Maintenance during this period includes controlling weeds and invasive species, litter removal, boundary fence maintenance and repair, and BMP maintenance and repair. At a minimum, maintenance will be performed biweekly during the 120-day PEP. The Restoration Contractor shall review the temporary impact revegetation areas monthly with the Project Biologist. At the end of the 120-day PEP the Restoration Contractor shall review the site with the Applicants representative and Project Biologist. If all work has been completed as outlined herein, the Applicant and Project Biologist will deem the PEP complete.

4.2 Three-Year Maintenance Period

Following successful completion of the 120-day PEP, the Restoration Contractor will maintain the temporary impact revegetation areas for three continuous years. Site maintenance shall occur regularly throughout the maintenance and monitoring period and will be directed by the Project Biologist. A minimum maintenance schedule is shown in Table 3; however, regular monitoring shall occur through the three years, and the Project Biologist may recommend that maintenance occur more often if determined necessary.

Table 3. Minimum Maintenance Schedule

Maintenance Task	Year 1	Year 2	Year 3
Target invasive non-native species abatement	Bimonthly[2]	Quarterly	Quarterly
Erosion control[1]	As-needed	As-needed	As-needed (not required)
General site maintenance	Bimonthly[2]	Quarterly	Quarterly

1 Maintenance of erosion control sites is anticipated to cease after 2 years. Remedial erosion control activities are anticipated to be focused after large storm events during the winter rainy season.

2 Bimonthly = every 2 months during the growing season, quarterly outside the growing season.

Maintenance activities shall begin with site preparation actions and shall continue throughout the maintenance and monitoring period, concluding once success criteria have been met. Contractor maintenance activities shall be conducted every other month during the growing season of Year 1 of the Restoration Project, and quarterly outside the growing season on Year 1 and during Years 2 and 3.

All maintenance performed throughout the year shall comply with applicable wildlife regulations, such as the Migratory Bird Treaty Act. If the Project Biologist determines that certain maintenance activities cannot be performed in compliance with environmental regulations, work shall be postponed until conditions allow, or until the restrictive period has ended for the season.

4.2.1 Weed Control

An integrated and adaptive vegetation management approach will be implemented to effectively control weed species throughout the mitigation area. The approach will use a combination of techniques, including hand removal, mechanical methods, and chemical treatment (as permitted), to effectively control target weed species. Weed control is proposed to occur within all temporary impact revegetation areas (Figure 4).

The control method(s) used will vary depending on several variables, including the species targeted for control, the overall area to be treated/removed, time of year, and proximity to sensitive resources. The Restoration Contractor, through consultation with the Project Biologist, will provide properly timed treatment to control non-native plant species, eliminate reinfestation, and adequately deplete the non-native seedbank. The least environmentally impactful methods will be prioritized when controlling non-native plant species, consistent with integrated pest management practices.

All non-native plants species will be targeted for control. Priority invasive annual and perennial plants include species listed on the California Invasive Plant Council (Cal-IPC) Inventory (Cal-IPC 2021). Priority invasive plant species that are present within the Project site include, but are not limited to fennel, mustards, thistles, and annual invasive grasses.

Hand Removal

Hand removal/physical extraction of non-native plant species will be used around dense groupings of native species or clusters to be protected in place, amid standing water, or where other control methods are impractical or would cause damage to the native species. Special care will be taken not to trample adjacent native vegetation while hand removing non-native plant species. The Restoration Contractor is required to discern between native and non-native vegetation to prevent unauthorized impacts to native habitat. The Project Biologist may assist with plant species identification, on an infrequent and as-needed basis.

Physical removal of whole plants, including the roots, is the best method for early germinators and species with a root ball that is underdeveloped and can be readily pulled out by the aboveground portions of the plant with a limited amount of soil disturbance. Minimization of soil disturbance, which may stimulate germination of existing non-native seed lying dormant in the soil, should occur.

Annual non-native plant species will be targeted for hand-removal and will be physically removed before seed-set (spring and summer). Maintenance efforts will be timed with non-native plant life cycles to effectively control plants

prior to seed-set. If hand removal is possible only after seed-set, then seed heads will be cut off, bagged, and removed from the site prior to biomass removal.

Mechanical Methods

Mechanical control includes removing herbaceous plant species with string-trimmers and cutting large shrubs and trees to grade with chainsaws or handheld loppers. Use of string-trimming is effective for biomass removal in large areas devoid of, or significantly low in, native cover. Cutting with chainsaws or loppers is intended for initial removal of large woody biomass and is usually used in conjunction with cut-stump herbicide application to prevent resprout. Cut biomass will require removal and disposal in an approved disposal facility. Use of string trimmers is not anticipated following planting and seeding due to the potential for collateral damage to emerging natives or establishing container plants. String trimming will only be allowed during the maintenance period in areas approved by the Project Biologist.

Chemical Treatment

Chemical treatment will be used for highly invasive non-native plants with root systems that make physical removal impractical. Herbicide treatment is also beneficial because it does not disturb the surface soils, which might expose buried and dormant seed. The Project Biologist will coordinate with the Restoration Contractor to identify specific locations where herbicides may be used. Herbicide treatment may follow hand and mechanical removal activities that are conducted to increase the effectiveness of subsequent chemical treatment. Herbicide treatment will be prescribed on a case-by-case basis.

Follow-up applications may be necessary for highly aggressive species. Follow-up herbicide treatment will be conducted when the recovering non-native invasive vegetation is still relatively small, before it has time to regain strength and vigor.

Herbicide treatments will follow all federal and state laws and regulations, label directions, and safety precautions. Herbicide application will only be performed under the direction of a state-certified qualified pesticide applicator and will comply with state and local regulations. The qualified pesticide applicator will be licensed with a Pest Control Business License issued by the State of California Department of Pesticide Regulation.

4.2.2 Trash and Debris Removal

During each scheduled maintenance visit, the Restoration Contractor will remove any trash and debris that has accumulated in the temporary impact revegetation areas. Removal shall be required for the duration of the 3-year maintenance and monitoring period. Natural debris such as leaf litter and woody debris will be left on site to decompose as they provide valuable microhabitats for invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of deadwood and leaf litter is essential for the replenishment of soil nutrients and minerals. Any thatch that has accumulated due to weed control efforts shall be removed from the site the same day it is cut and disposed of in a legal manner.

4.2.3 Site Protection/Access Control

The temporary impact revegetation areas within the Project site occur on private properties in unincorporated Alameda County, indicating a very low likelihood for unauthorized access by anyone not associated with Project

maintenance or operation into the revegetation areas. Unauthorized access within the temporary impact revegetation areas will be reported to the Applicant, and enforcement of access restrictions will be the responsibility of the Applicant. The Applicant may coordinate with the Restoration Contractor if any access control measures are required.

4.2.4 Pest Management

Control of vertebrate pests is not anticipated during the three-year maintenance and monitoring period, nor are insect pests anticipated to cause significant enough damage to warrant control. Non-native wildlife species are considered invasive when they threaten native biodiversity by disrupting or altering native ecological communities and have negative consequences for native species and habitats. Invasive non-native wildlife species may outcompete, prey upon, or disturb the habitat of native wildlife and may spread diseases.

If any plant diseases or pests become significant enough to warrant control, the Restoration Contractor will consult with a licensed pest control adviser for specific control measures, which will be conducted in coordination with the Project Biologist and Applicant, and will follow all applicable laws, regulations, label directions, and safety precautions. Additionally, excessive loss of plant material as a result of herbivory shall be brought to the attention of the Project Biologist and the Applicant to determine appropriate control measures.

4.2.5 Adaptive Management

Should any temporary impact revegetation area not meet interim performance standards or final success criteria at any point during the maintenance and monitoring program, contingency measures may be implemented at the discretion of the Project Biologist and in consultation with the Applicant. Remedial measures may include but are not limited to supplemental seeding, soil tilling, additional erosion control BMPs, increased weed control frequency, and supplemental watering, among other things.

If unforeseen changes in site conditions or other components of the Restoration Project cause final success criteria to not be met, the Project Biologist shall prepare an analysis of the cause(s) of failure(s) and propose remedial actions to correct the problem(s) in coordination with the Applicant. Substantial progress toward the success criteria along with habitat functions consistent with pre-project conditions may be relied upon to allow for project sign off.

5 Monitoring Plan

The following monitoring plan will be implemented as part of the 120-day PEP and subsequent three-year monitoring and maintenance program, which are scheduled to commence immediately following successful installation. The Project Biologist, or their designee, shall make regular site visits during revegetation activities. The Project Biologist shall review activities for conformance to this Plan, and applicable environmental permit conditions. The results of each site visit shall be communicated to the Applicant. Photo-documentation of site conditions will be conducted, as needed.

5.1 Monitoring Methods

Monitoring of the temporary impact revegetation areas shall consist of qualitative and quantitative field monitoring visits conducted by the Project Biologist, or their designee, to assess the performance criteria as outlined below in Section 5.2. Qualitative monitoring will occur monthly during the 120-day PEP and quarterly throughout the duration of the three-year program. Quantitative monitoring will be conducted once annually during the late spring to early summer at each temporary impact revegetation area. The Project Biologist shall provide a complete summary of the results of monitoring activities completed in the prior year period in an annual monitoring report.

Following each site visit, the Project Biologist shall generate a brief site observation report, detailing the condition of the sites and any maintenance and/or remedial actions required to meet annual performance goals. Copies of the site observation report shall be provided to DWR for distribution to the restoration staff.

5.1.1 Qualitative Monitoring

Qualitative monitoring of the temporary impact revegetation areas will consist of general site assessments, evaluation of seedling recruitment, soil moisture content, presence/absence of plant pests or diseases, erosion issues, presence of non-native or invasive plant species, trash or debris accumulation, and wildlife use. All qualitative monitoring visits to the temporary impact revegetation areas shall be documented with a site observation report that includes photos, which shall be forwarded to the Restoration Contractor and Applicant. Any Restoration Project deficiencies shall be noted in the site observation report, with accompanying recommendations for maintenance or remedial actions. All significant observations will be included in the annual monitoring report.

5.1.2 Quantitative Monitoring

Quantitative monitoring will be used to assess vegetation establishment within the temporary impact revegetation areas. Quantitative monitoring will determine total native species cover and composition and total non-native species cover and composition. Quantitative monitoring will be conducted using visual cover estimates to assess Project status by revegetation area compared to the annual performance standards and track progress toward Restoration Project completion. Permanent photo points will be established within representative temporary impact revegetation areas so vegetation development and cover can be visually documented during the three-year maintenance and monitoring period. The quantitative monitoring visit shall be conducted annually in the late spring or early summer beginning in Year 1 and extending through Year 3 of the maintenance and monitoring period.

5.2 Performance Standards

The stated performance standards for the revegetation areas are based on evaluation of pre-existing and adjacent vegetation communities. Performance standards will be used to help assess the annual progress of the sites towards Restoration Project completion. The performance standards for years 1 and 2 are considered interim performance standards. Fulfillment of these interim standards will indicate that the revegetation is progressing toward the long-term goals of the Plan. If revegetation efforts fail to meet the interim performance standards listed, the Project Biologist shall consider remedial actions which may be implemented (e.g., supplemental seeding, increased weed control frequency, changes to cultural practices) to enhance the vegetation communities to a level in conformance with these standards. Ultimate success of the Restoration Project would be represented by the revegetation of the sites meeting the Year 3 performance standards (Table 4).

Table 4. Performance Standards for Grassland Revegetation Areas

Year	Native Species Absolute Cover	Non-native Species Absolute Cover[1]	Total Plant Cover[2]	Site Stability
1	10%	< 15% of Cal-IPC rated high or moderate perennial species	70% of pre-project cover	No major signs of erosion
2	15%	< 15% of Cal-IPC rated high or moderate perennial species	70% of pre-project cover	No major signs of erosion
3	20%	< 15% of Cal-IPC rated high or moderate perennial species	70% of pre-project cover	No major signs of erosion

1 Does not include non-native annual grasses listed in the Cal-IPC Inventory, including but not limited to wild oat and brome species, which currently dominate the site.

2 Non-native grassland within the future temporary impact revegetation areas currently exhibits total vegetative cover of approximately 85 to 90 percent, based on a site check conducted in June 2024.

5.3 General Site Requirements

The following general site characteristics must be met by the end of the three-year maintenance and monitoring period.

5.3.1 Site Must Be Self-Sustaining

The revegetation areas must be self-sustaining (i.e., able to survive without artificial support) by the end of the three-year maintenance and monitoring period. Determination of whether the site is self-sustaining will be whether temporary irrigation is needed, and the vegetation shows evidence of natural growth cycles.

5.3.2 Site Must Show Evidence of Natural Recruitment

The site must show evidence of natural recruitment of native species. This will be evaluated by native plant species growing successfully in growing seasons where no seed was applied.

5.3.3 Site Must Show Evidence of Wildlife Use

The restoration site must exhibit signs or evidence of wildlife use during the final year of monitoring.

5.3.4 Habitat Contiguity

The site must contain vegetation that is visually contiguous with vegetation communities naturally occurring in areas adjacent to the site. Habitat connectivity and appropriate habitat linkages will provide nesting and foraging habitat for wildlife species.

5.4 Reporting

An annual report outlining monitoring results and the progress of the revegetation areas shall be submitted to the Applicant at the end of each monitoring year within 30 days of the anniversary date of Restoration Project installation, or at the end of the calendar year until the performance standards have been met. The annual monitoring reports shall include the following: a description of the existing conditions of the sites derived from qualitative data, a comparison of annual performance standards with monitoring data, any shortcomings of the revegetation areas compared to the performance standards and recommended remedial measures necessary for the successful completion of the Project. Each annual report shall provide a summary of the accumulated data.

INTENTIONALLY LEFT BLANK

6 Completion of the Revegetation Program

Upon completion of the maintenance and monitoring period, if the target performance standards have been achieved, notification of completion will be included within the final annual report submitted to the Applicant. The Applicant shall notify the applicable regulatory agencies upon submitting the final annual report. Following receipt of the notification of completion, the applicable regulatory agencies may visit the sites to confirm the completion of the mitigation effort and to verify compliance requirements.

INTENTIONALLY LEFT BLANK

7 References

Cal-IPC (California Invasive Plant Council). 2021. “California Invasive Plant Council Online Inventory.” Accessed February 2021. https://www.cal-ipc.org/plants/inventory/.

CNPS (California Native Plant Society). 2023. Rare Plant Inventory (online edition, v9.5). California Native Plant Society, Rare Plant Program, Sacramento, CA. Accessed August 2023. http://www.rareplants.cnps.org.

Google Earth Pro. 2023. “Mulqueeney Ranch PSA 37°42'42.80"N, 121°34'24.40"W”. Version 7.3.6.9345. Mountain View, CA: Google Earth Mapping Service. Accessed August 2023.

USDA (U.S. Department of Agriculture). 2023a. Soil Survey Geographic Database: Web Soil Survey [GIS online viewer]. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed August 2023. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

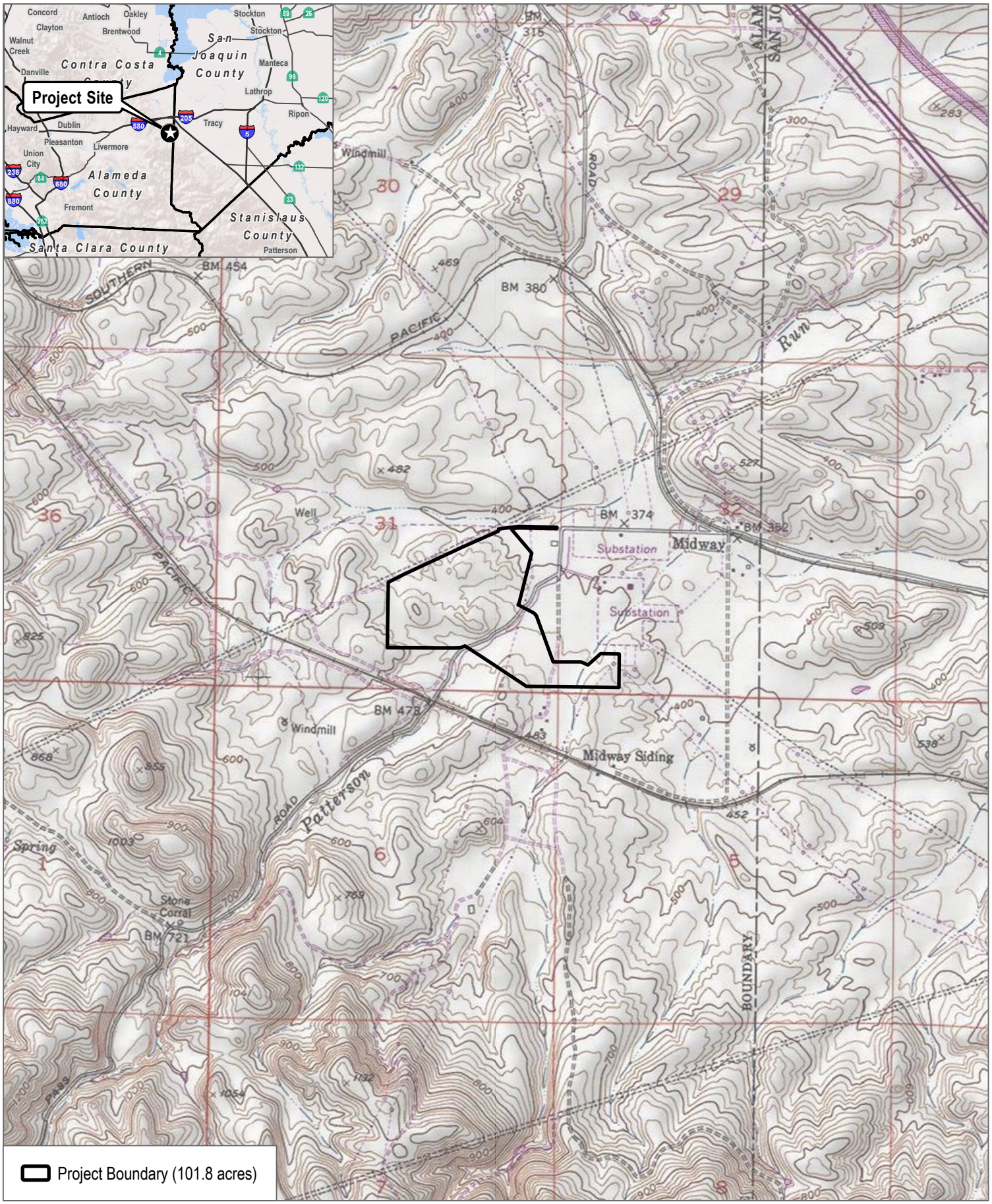
USDA. 2023b. List of Hydric Soils. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed August 2023. https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/hydric-soils.

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

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 August 2023. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9001.

INTENTIONALLY LEFT BLANK



SOURCE: USGS 7.5 Minute Quadrangle Series

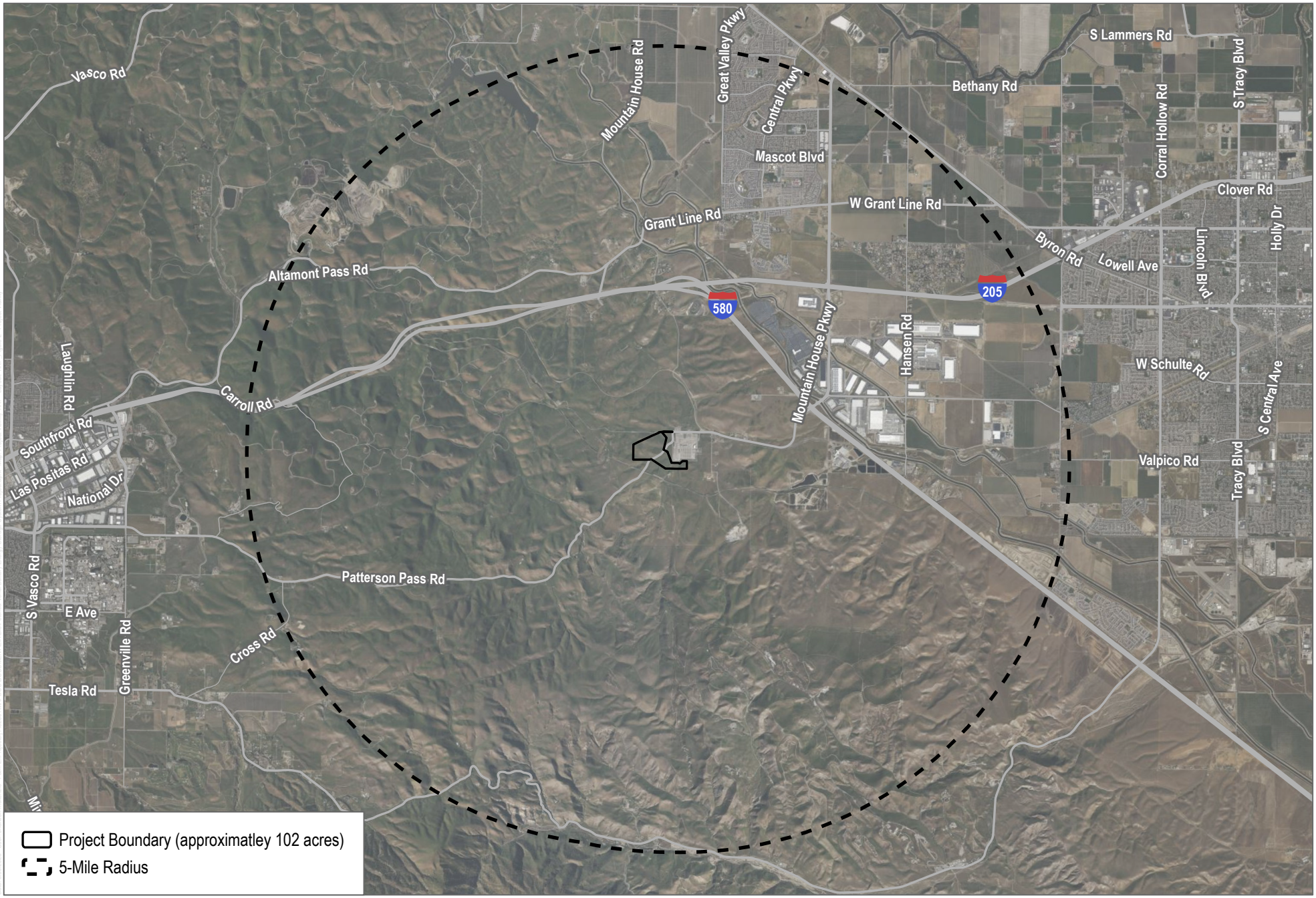
FIGURE 1

Project Location

Potentia-Veridi Battery Energy Storage System Project Temporary Impact Revegetation Plan

DUDEK

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2023

DUDEK

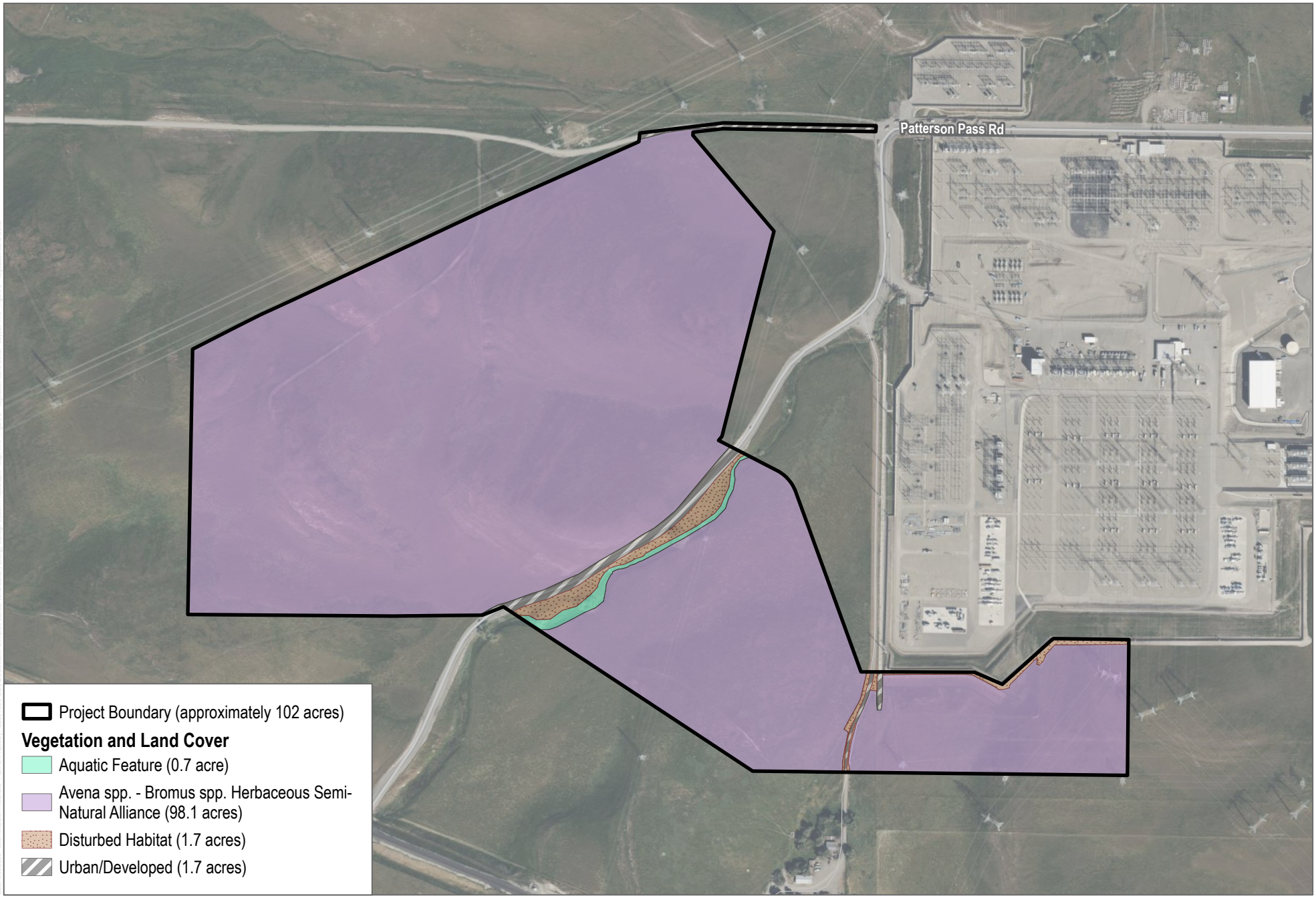
0 4,000 8,000 Feet

FIGURE 2

Project Vicinity

Potentia-Veridi Battery Energy Storage System Project Temporary Impact Revegetation Plan

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2023

DUDEK

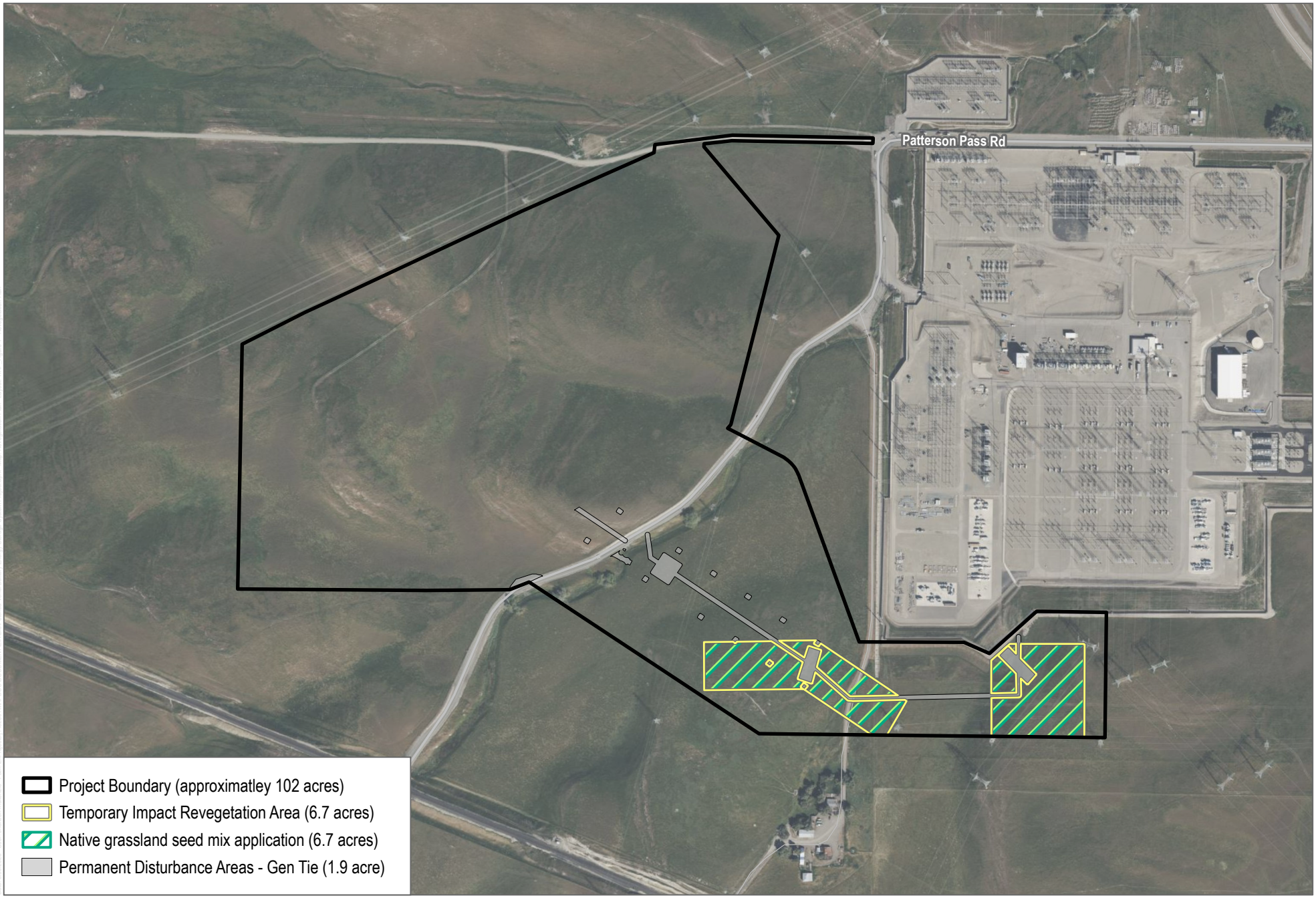
0 250 500 Feet

FIGURE 3

Vegetation and Land Cover

Potentia-Veridi Battery Energy Storage System Project Temporary Impact Revegetation Plan

INTENTIONALLY LEFT BLANK



SOURCE: Bing Maps 2023;

DUDEK

0 270 540 Feet

FIGURE 4

Revegetation Plan

Potentia-Veridi Battery Energy Storage System Project Temporary Impact Revegetation Plan

INTENTIONALLY LEFT BLANK

Attachment 7

Lake and Streambed Alteration Agreement Application

FOR DEPARTMENT USE ONLY				
Date Received	*Amount Received*	*Amount Due*	*Date Complete*	*Notification No.*
	$	*$*		
Assigned to:				

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the instructions and submit ALL required enclosures, attachments, and fee(s) to the CDFW regional office that serves the area where the project will occur. Attach additional pages to notification, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Patrick Leitch
Business/Agency	Levy Alameda, LLC
Mailing Address	155 Wellington Street West, Suite 2930
City, State, Zip	Toronto, Ontario M5V 3H1, Canada
Phone Number	310-899-5340
Email	PLeitch@capstoneinfra.com

2. CONTACT PERSON (*Complete only if different from applicant.*)

Name	
Business/Agency	
Mailing Address	
City, State, Zip	
Phone Number	
Email	

While an applicant is legally responsible for complying with Fish and Game Code section 1602 et seq., an applicant may designate and authorize an agent (e.g., lawyer, consultant, or other individual) to act as a Designated Representative. The Designated Representative is authorized to sign the notification and any agreement on behalf of the Applicant.

Do you authorize the Contact Person above to represent you as your Authorized Designated Representative?

☑ Yes, I authorize. ☐ No, I do not authorize.

3. PROPERTY OWNER (*Complete only if different from applicant*)

Name	
Mailing Address	
City, State, Zip	
Phone Number	
Email	

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name	Potentia-Viridi Battery Energy Storage System Project			
B. Agreement Term Requested	☑ Regular (*5 years or less*) ☐ Long-term (*greater than 5 years)*			
C. Project Term	Beginning (*year*)	2026	Ending (*year*)	2030

D. Seasonal Work Period

Season(s)*	Start Date (*month/day*)	End Date (*month/day*)	E. Number of Work Days
1	June 15	October 15	150
2			
3			
4			
5			

** Continue on additional page(s) if necessary*

5. AGREEMENT TYPE

Check the applicable box. If boxes B – F are checked, complete the specified attachment.

A.	Standard *(Most construction projects, excluding the categories listed below)* – **Effective September 1, 2020, notification for Standard Agreements shall be submitted through the EPIMS Permitting Portal.**
B.	☐ Gravel/Sand/Rock Extraction (*Attachment A*) *Mine I.D. Number:* _____
C.	☐ Timber Harvesting (*Attachment B*) *THP Number:* _____
D.	Water Diversion/Extraction/Impoundment (*Attachment C*) – **Attachment no longer available. Notification shall be submitted through the EPIMS Permitting Portal.**
E.	☐ Routine Maintenance (*Attachment D*)
F.	Cannabis Cultivation (*Attachment E*) – **Attachment no longer available. Notification shall be submitted through the EPIMS Permitting Portal.**
G.	☐ CDFW Grant Programs *Agreement Number:* _____
H.	☐ Master
I.	☐ Master Timber Operations

6. FEES

See the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. ***Note: CDFW may not process this notification until the correct fee has been received.***

	A. Project Name	B. Project Cost	C. Project Fee
1	Stormwater Outfall		
2	Low-water Crossing		
3			
4			
5			
6			
7			
8			
9			
10			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE*	

** Check, money order, and Visa or MasterCard (select Environmental Fees from Menu) payments are accepted.*

7. PRIOR NOTIFICATION AND ORDERS

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, CDFW for the project described in this notification?

☐ Yes (*Provide the information below*) ☑ No

Applicant	Notification Number	Date

B. Is this notification being submitted in response to a court or administrative order or notice, or a notice of violation (NOV) issued by CDFW?

☐ Yes ☑ No (*Enclose a copy of the order, notice, or NOV. If the applicant was directed to notify CDFW verbally rather than in writing, identify the person who directed the applicant to submit this notification, the agency he or she represents, and describe the circumstances relating to the order.*)

Name of person who directed notification	Agency

Describe circumstances relating to order

☐ *Continued on additional page(s)*

8. PROJECT LOCATION

A. Address or description of project location.
(*Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway.*)

The Project is in eastern Alameda County, California. The Project consists of the BESS facility and a generation tie (gentie) alignment to the southeast connecting the facility to the adjacent Pacific Gas & Electric (PG&E) Tesla Substation. The Project is currently undeveloped. The PG&E Tesla substation is directly east; along the western Project boundary there are transmission lines running northeast to southwest; Patterson Pass Road follows the eastern boundary; there is a railroad line to the south and a gravel access road to the north. The gen-tie alignment connecting the BESS facility to the PG&E substation crosses Patterson Pass Road, Patterson Run (an ephemeral stream channel), and runs northwest to southeast to the southwestern corner of the substation. The site and surrounding land have been used for cattle grazing. The area of the BESS facility and immediately south of the substation is not currently being grazed, while much of the gen-tie alignment is currently used as cattle pasture. The nearest city is Tracy, approximately 2.5 miles to the east.

☐ *Continued on additional page(s)*

B. River, stream, or lake affected by the project.	Patterson Run
C. What water body is the river, stream, or lake tributary to?	None
D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes ☑ No ☐ Unknown
E. County	Alameda

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Midway	2S	4E	31	

☐ *Continued on additional page(s)*

K. Meridian (check one) ☐ Humboldt ☑ Mt. Diablo ☐ San Bernardino

L. Assessor's Parcel Number(s)

99B-7890-2-4	99B-7885-12
99B-7890-2-6	

☐ *Continued on additional page(s)*

M. Geographic coordinates (*Provide the latitude and longitude coordinates for the property where the project(s) will take place. CDFW utilizes decimal degrees and WGS 84 datum. Access Google Maps Help if you need assistance in finding your coordinates.)*

Latitude/Longitude	*Latitude:* 37.712130	*Longitude:* -121.573369
	Latitude: ##.#####	*Longitude:* -###.#####
	Latitude: ##.#####	*Longitude:* -###.#####
	Latitude: ##.#####	*Longitude:* -###.#####
	Latitude: ##.#####	*Longitude:* -###.#####

9. PROJECT CATEGORY

WORK TYPE	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR-MAINTAIN-OPERATE EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☐	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☐	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☐	☐	☐
Channel clearing/vegetation management	☐	☐	☐
Culvert	☐	☐	☑
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Filling of wetland, river, stream, or lake	☐	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☐	☐	☐
Levee	☐	☐	☐
Low water crossing	☑	☐	☐
Road/trail	☐	☐	☐
Sediment removal: pond, stream, or marina	☐	☐	☐
flood control	☐	☐	☐
Storm drain outfall structure	☑	☐	☐
Temporary stream crossing	☐	☐	☐
Utility crossing: horizontal directional drilling	☐	☐	☐
jack/bore	☐	☐	☐
open trench	☐	☐	☐
Water diversion without facility	☐	☐	☐
Water diversion with facility	☐	☐	☐
Other *(specify)*:	☐	☐	☐

10. PROJECT DESCRIPTION

A. Describe the project in detail. Include photographs of the project location and immediate surrounding area.

- Written description of all project activities with detailed step-by-step description of project implementation.
- Include any structures (e.g., rip-rap, culverts) that will be placed or modified in or near the stream, river, or lake, and any channel clearing.
- Specify volume, and dimensions of all materials and features (e.g., rip rap fields) that will be used or installed.
- If water will be diverted or drafted, specify the purpose or use and include Attachment C.
- Enclose diagrams, drawings, design plans, construction specifications, and maps that provide all of the following: site specific construction details; dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, stockpile areas, areas of temporary disturbance, and where the equipment/machinery will access the project area.
  - A helpful resource to assist in the development of quality PDF maps in Google Earth. See Using Google Earth to Map your Property (PDF).

A stormwater drainage outfall utilizing an existing corrugated metal pipe would be constructed from a new 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 5 cubic yards of clean rip-rap (with cubic yards of salvaged native fill) 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. Equipment will access the site through a low-water crossing along the gen-tie route and all staging of equipment and materials will occur within the project limits for the BESS facility.

The low-water crossing will be designed for the use of a transmission structure access path crossing Patterson Run that will be used for gen-tie construction and O&M access activities. The low-water crossing will remain in place throughout O&M and after decommissioning. However, the Applicant is only permitting for the construction portion of the project and any potential future impacts to Patterson Run will be permitted under a separate permit.

Permanent impacts to Patterson Run will result from the installation of riprap at a stormwater outfall and the installation of a ford (i.e., low-water crossing). The stormwater outfall will impact approximately 80 square feet and 8 linear feet of Patterson Run for the placement of approximately 5 cubic yards of rip-rap below top of bank (with 3 cubic yards of salvaged native fill). The ford will impact approximately 1,600 square feet and 30 linear feet of Patterson Run for the placement of approximately 30 cubic yards of riprap and 17 cubic yards of imported fill below top of bank. The low-water crossing and outfall structure will remain in place throughout O&M and after decommissioning.

See attached Supplemental Information.

☑ *Continued on additional page(s)*

B. Specify the equipment and machinery that will be used to complete the project.

See attached Supplemental Information

☑ *Continued on additional page(s)*

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).	☐ Yes ☑ No (*Skip to box 11*)
D. Will the project require work in the wetted portion of the channel?	☐ Yes (*Enclose a plan to divert water around work site*) ☑ No

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

0.04 acres (1,680 sqft) of permanent impacts, 38 linear feet and no temporary impacts

See attached Supplemental Information

☐ *Continued on additional page(s)*

B. Will the project affect any vegetation? ☑ Yes (*Complete the tables below*) ☐ No *(Include aerial photo with date supporting this determination)*

Vegetation Type	Temporary Impact	Permanent Impact
non-native grasses	Linear feet: _____ Total area: _____	Linear feet: 38 Total area: 0.04
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
	None	

☐ *Continued on additional page(s)*

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes *(List each species and/or describe the habitat below)* ☐ No ☐ Unknown

See attached supplemental information.

☐ *Continued on additional page(s)*

D. Identify the source(s) of information that supports a “yes” or “no” answer above in Box 11.C.

See attached Biological Resources Report

☐ *Continued on additional page(s)*

E. Has a biological study been completed for the project site?

☑ Yes (*Enclose the biological study*) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has one or more technical studies (e.g., engineering, hydrologic, geological, or geomorphological) been completed for the project or project site?

☑ Yes *(Enclose the study(ies))* ☐ No

Note: One or more technical studies may be required to evaluate potential project impacts to a lake or streambed.

G. Have fish or wildlife resources or waters of the state been mapped or delineated on the project site?

☑ Yes (*Enclose the mapped results*) ☐ No

Note: Check "yes" if fish and wildlife resources or waters of the state on the project site have been mapped or delineated. "'Wildlife' means and includes all wild animals, birds, plants, fish, amphibians, reptiles and related ecological communities, including the habitat upon which the wildlife depends." (Fish & G. Code, § 89.5.) If "yes" is checked, submit the mapping or delineation. If the mapping or delineation is in digital format (e.g., GIS shape files or KMZ), you must submit the information in this format for CDFW to deem your notification complete. If "no" is checked, or the resolution of the mapping or delineation is insufficient, CDFW may request mapping or delineation (in digital or non-digital format), or higher resolution mapping or delineation for CDFW to deem the notification complete.

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment, hazardous, or other deleterious materials from entering watercourses during and after construction.

See attached supplemental information.

☐ *Continued on additional page(s)*

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

See attached supplemental information.

☐ *Continued on additional page(s)*

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

A mitigation plan has been submitted to the Federal U.S. Fish & Wildlife Service as a part of the Section 7 consultation, pursuant to the Endangered Species Act. This mitigation plan includes a proposal for preservation of 182.1 acres of habitat for federally-listed amphibians including California tiger salamander and California red-legged frogs. This proposes to mitigate for all permanent impacts at a 3:1 ratio. The mitigation area is immediately adjacent to the proposed project site and consists of the same habitat type (including vegetation, topography, soils, slope/aspect, waters and wetlands) as the project site (i.e., is considered " like for like " mitigation). Within the 182.-1 – acre mitigation area, there are approximately 2.8-acre of jurisdictional waters and wetlands. Of these waters, at least 0.12-acre (3:1 ratio) will be preserved in perpetuity as mitigation for the permanent fill of 0.04-acre of jurisdictional waters associated with the outfall and low-water crossing. These mitigation waters are proposed to be preserved in perpetuity as a component of the mitigation proposal for federally-listed species and represent habitat components for both amphibian species of concern. This mitigation plan proposes wetland / water mitigation to be preserved at a mitigation ratio of 3:1.

☐ *Continued on additional page(s)*

13. PERMITS

List any local, State, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A.	RWQCB 401 WQC	☑ Applied	☐ Issued
B.	USACE	☑ Applied	☐ Issued
C.	CDFW ITP	☑ Applied	☐ Issued

D. Unknown whether ☐ local, ☐ State, or ☐ federal permit is needed for the project. (*Check each box that applies*)

☐ *Continued on additional page(s)*

14. ENVIRONMENTAL REVIEW

A. Has a CEQA lead agency been determined?	☑ Yes (*Complete boxes B, C, D, E, and F*) ☐ No (*Skip to box 14.G*)		
B. CEQA Lead Agency	California Energy Commission		
C. Contact Person	Eric Veerkamp	D. Phone Number	

E. Has a draft or final document been prepared for the project pursuant to CEQA and/or NEPA?

☐ Yes (*Check the box below for each CEQA or NEPA document that has been prepared and enclose a copy of each.*)

☑ No (*Check the box below for each CEQA or NEPA document listed below that will be or is being prepared.*)

☐ Notice of Exemption	☐ Mitigated Negative Declaration	☐ NEPA document (*type*):
☐ Initial Study	☐ Environmental Impact Report	Project is filing through the CEC process
☐ Negative Declaration	☐ Notice of Determination *(Enclose)*	
☐ THP/ NTMP	☐ Mitigation, Monitoring, & Reporting Plan	

F. State Clearinghouse Number (*if applicable*)

G. If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project (Cal. Code Regs., tit. 14 § 15378).

☐ *Continued on additional page(s)*

H. Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?

☐ Yes (*Enclose proof of payment*) ☑ No (*Briefly explain below the reason a CEQA filing fee has not been paid)*

Note: The CEQA filing fee is in addition to the notification fee. If a CEQA filing fee is required, the Lake or Streambed Alteration Agreement may not be finalized until paid.

The project is filing through the CEC "Opt-In" certification process (Assembly Bill 205).

15. SITE INSPECTION

Check one box only.

☐ In the event CDFW determines that a site inspection is necessary, I hereby authorize a CDFW representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant CDFW such entry.

☑ I request CDFW to first contact (*insert name*) _____ at (*insert phone number or email address*) _____ to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay CDFW's determination as to whether a Lake or Streambed Alteration Agreement is required and/or CDFW's issuance of a draft agreement pursuant to this notification.

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☐ Yes (Please enclose the information via digital media with the completed notification form.)

☐ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, CDFW may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless CDFW has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

_____ _____
Signature of Applicant or Applicant's Authorized Representative Date

_____
Print Name

Appendix A FIGURES

● Project Location

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

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

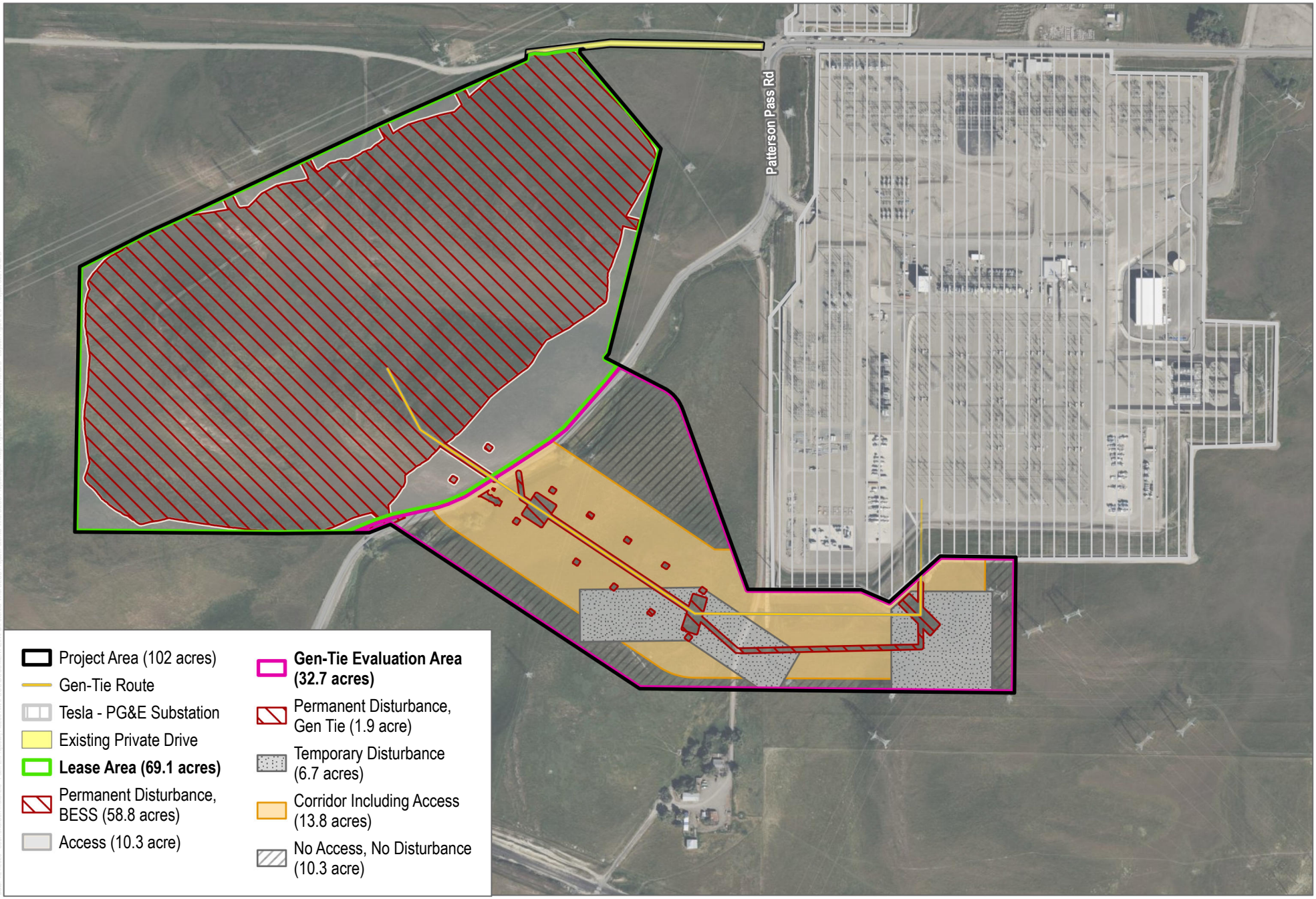
Figure No.
Figure 1

Title
Project Location

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

V:\185706\Active\185706735\Pro\PV_BESS_BA\PV_BESS_BA.aprx Revised: 2024-06-12 By: kdelapena

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



SOURCE: Bing Maps 2023

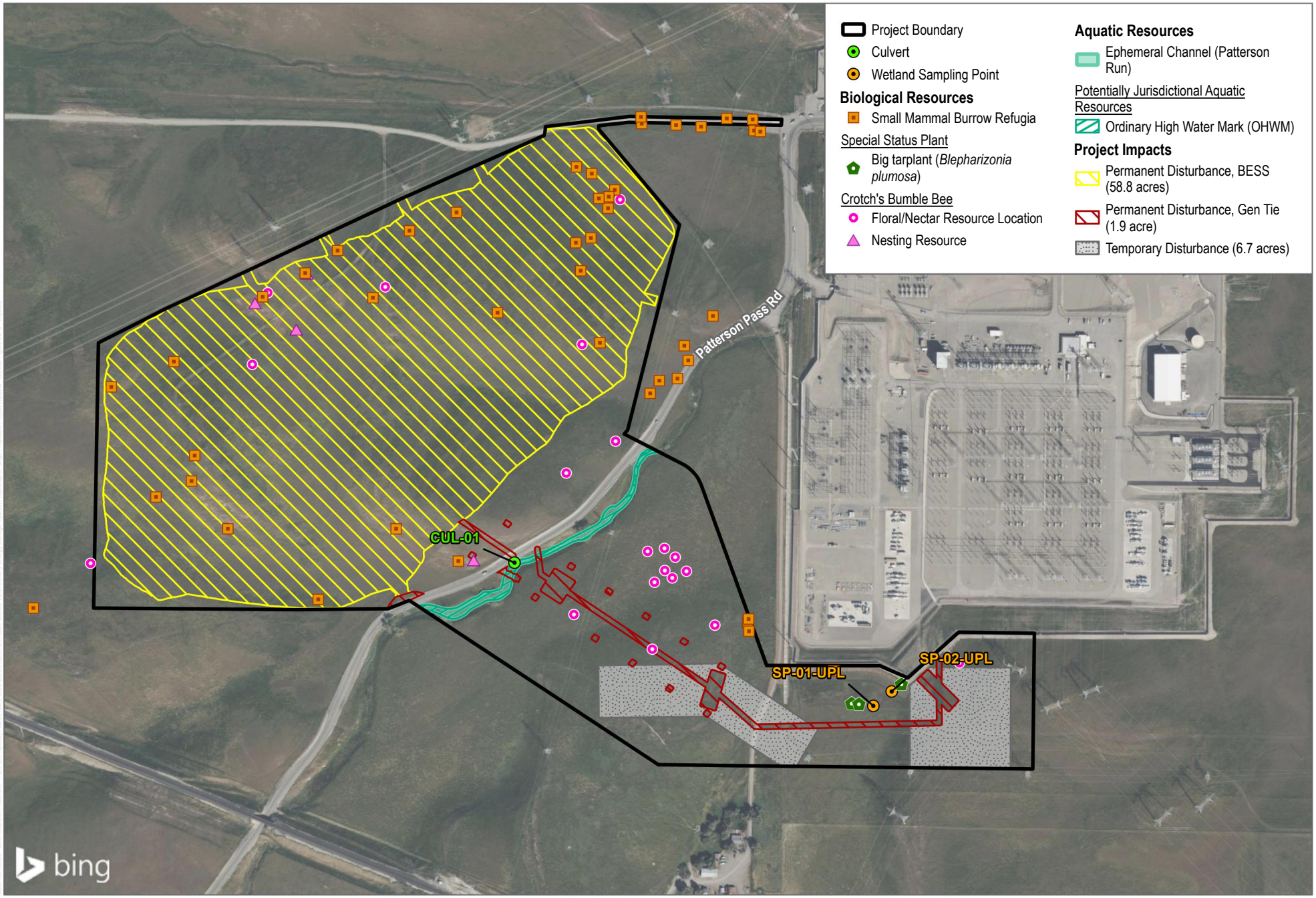
DUDEK

0 250 500 Feet

FIGURE 2

Project Site Aerial

Potentia-Viridi BESS Project



SOURCE: Bing Maps (accessed 2024)

1:6,000 | 1 inch equals 500 feet

DUDEK

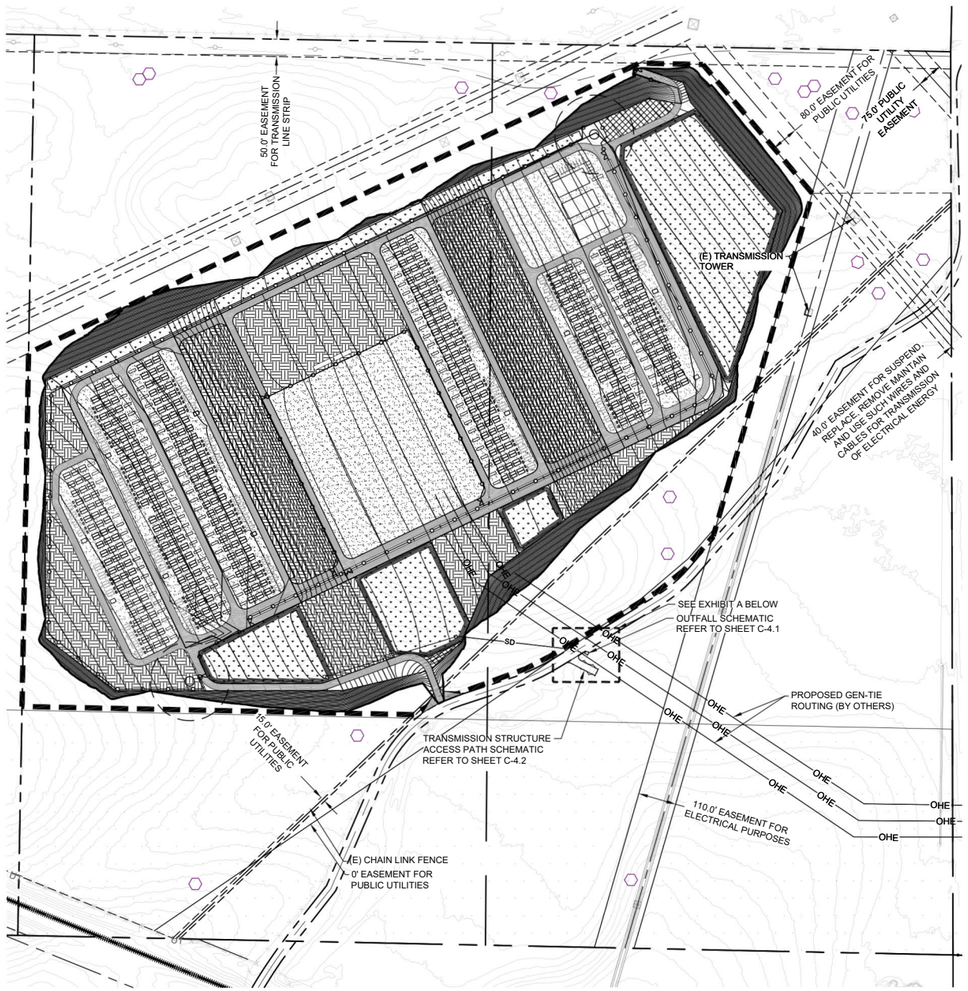
0 250 500 Feet

FIGURE 3

Proposed Project Impacts

Potentia-Veridi Battery Energy Storage System Project

Appendix B DESIGN PLANS



SITE MAP
SCALE: 1"=200'

200 100 0 200 400
SCALE: 1 INCH = 200 FEET

LEGEND

- CENTERLINE
- EASEMENT LINE
- PROPERTY LINE
- PROPOSED LEASE LINE
- DRAINAGE MANAGEMENT AREA
- EXISTING CHAIN LINK FENCE
- PROPOSED FENCE
- STORM DRAIN PIPE (SD)
- RAILROAD
- EXISTING UTILITY POLE
- EXISTING CONTOURS (200)
- PROPOSED CONTOURS (200)
- ORDINARY HIGH WATER MARK
- STORMWATER/LID AREA

SHEET INDEX

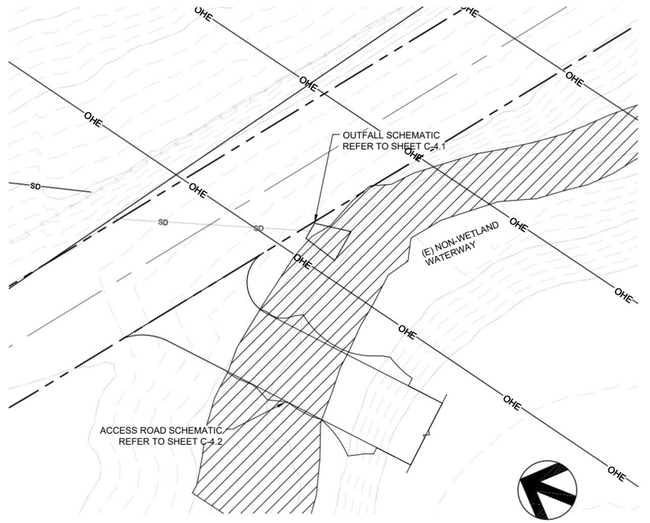


EXHIBIT A
SCALE: 1"=20'

20 10 0 20 40
SCALE: 1 INCH = 20 FEET

UTILITY STATEMENT
LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE BEEN TAKEN FROM DRAWINGS AND FIELD LOCATES SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES. UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

811 Know what's below. Call before you dig.

COFFMAN ENGINEERS
1939 Harrison Street, Suite 320
Oakland, CA 94612
ph 510.251.9578
www.coffman.com

POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM

LEVY ALAMEDA, LLC

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	5/5/25	REV 2
1	1/17/25	REV 1

PROJ. NO.	232059
DRAWN	LB
CHECKED	RB
DATE	7/15/24

© COFFMAN ENGINEERS INC.

SHEET TITLE:

401 PERMIT COVER

SHEET NO:

C-4.0

SHEET OF 7

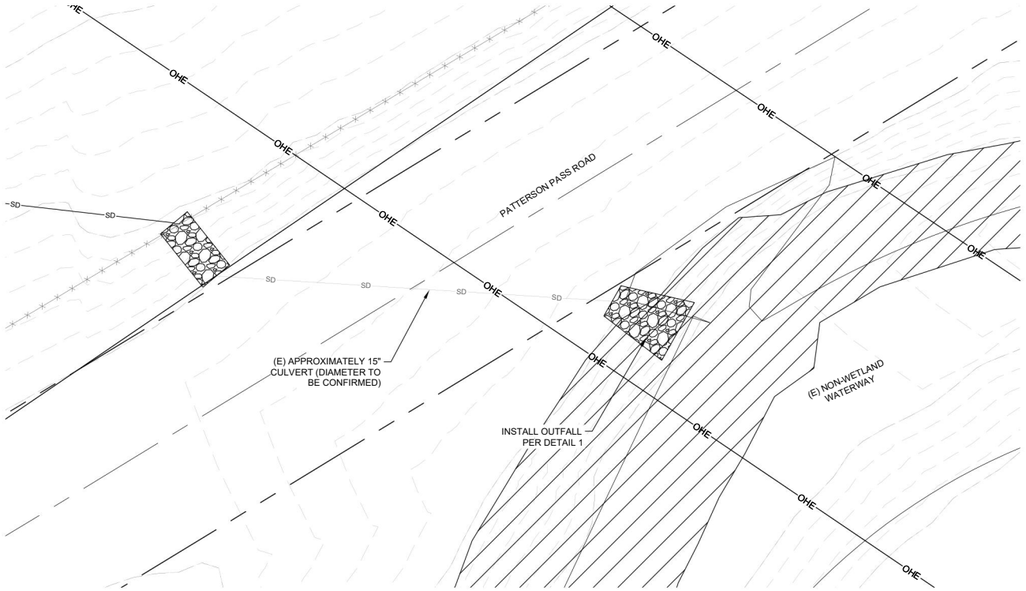
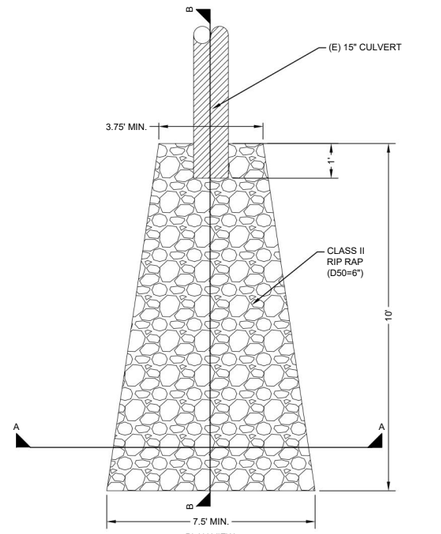
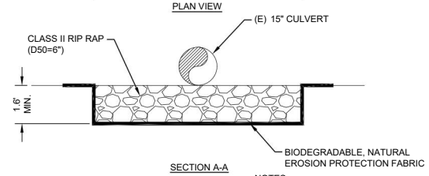


EXHIBIT A
SCALE: 1"=10'

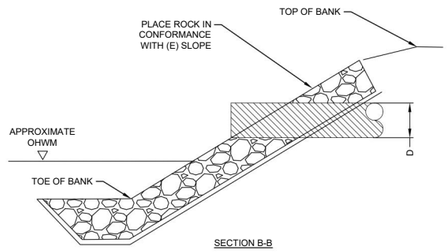


PLAN VIEW



SECTION A-A

NOTES:
ENERGY DISSIPATER SIZED PER FEDERAL HIGHWAY ADMINISTRATION HYDRAULIC ENGINEERING MANUAL

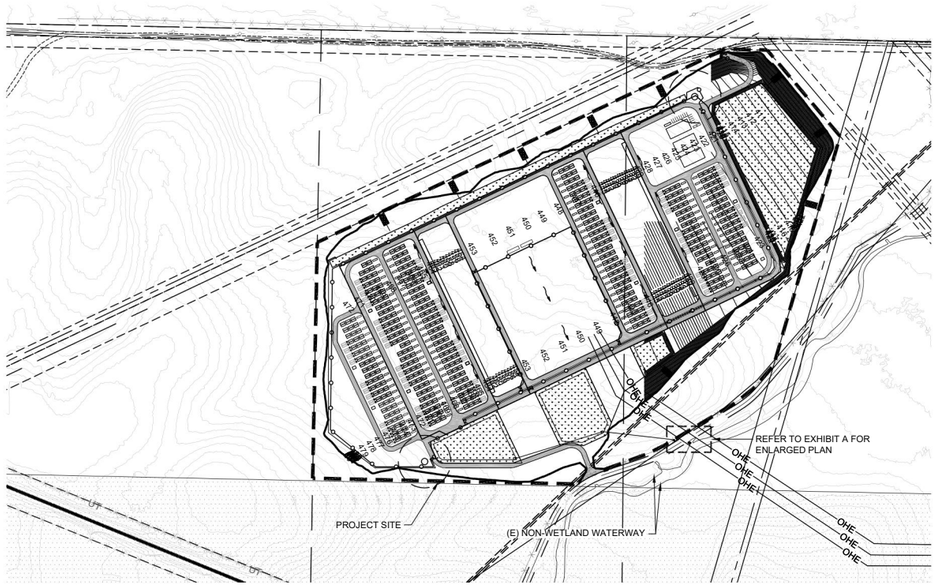


SECTION B-B

1 - OUTFALL DETAIL
SCALE: NTS

LEGEND

- CENTERLINE
- EASEMENT LINE
- PROPERTY LINE
- PROPOSED LEASE LINE
- DRAINAGE MANAGEMENT AREA
- EXISTING CHAIN LINK FENCE
- PROPOSED FENCE
- STORM DRAIN PIPE (SD)
- RAILROAD
- EXISTING UTILITY POLE
- EXISTING CONTOURS (200)
- PROPOSED CONTOURS (200)
- ORDINARY HIGH WATER MARK
- STORMWATER/LID AREA



SITE MAP
SCALE: 1"=300'

OUTFALL TOTAL QUANTITIES

DISTURBED AREA (SF)	EXCAVATED VOLUME (CY)	TOTAL CUT VOLUME (CY)	TOTAL NATIVE FILL VOLUME (CY)	RIP RAP VOLUME (CY)	NET EXPORT (CY)
80	16	8	3	5	5

OUTFALL OHWM QUANTITIES

DISTURBED AREA (SF)	EXCAVATED VOLUME (CY)	CUT VOLUME (CY)	NATIVE FILL VOLUME (CY)	RIP RAP VOLUME (CY)	NET EXPORT (CY)
60	12	6	2	4	4

200 100 0 200 400
SCALE: 1 INCH = 200 FEET

UTILITY STATEMENT
LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE BEEN TAKEN FROM DRAWINGS AND FIELD LOCATES SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES. UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

811 Know what's below. Call before you dig.

COFFMAN ENGINEERS
1939 Harrison Street, Suite 320
Oakland, CA 94612
ph 510.251.9578
www.coffman.com

POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM

LEVY ALAMEDA, LLC

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	5/5/25	REV 2
1	1/17/25	REV 1

PROJ. NO. 232059
DRAWN LB
CHECKED RB
DATE ~~7/30/24~~

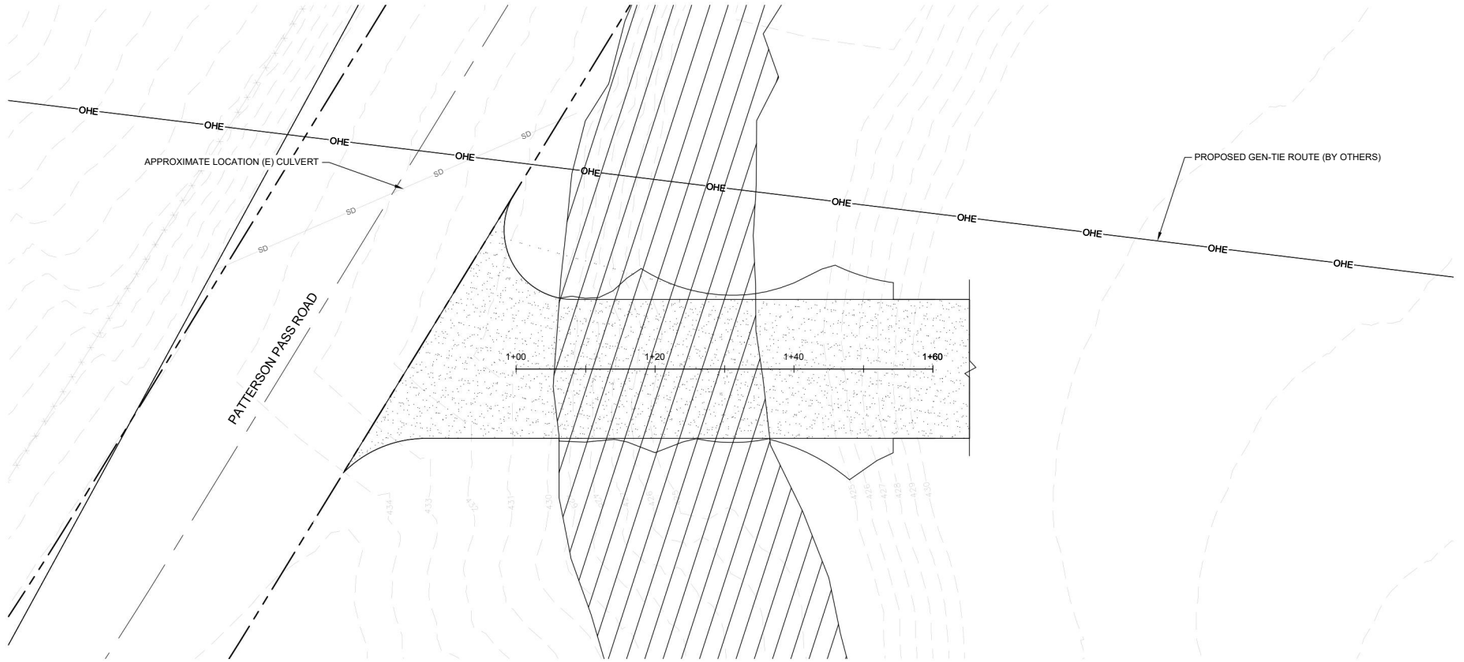
© COFFMAN ENGINEERS INC.

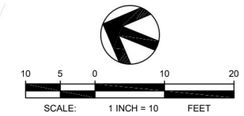
SHEET TITLE:

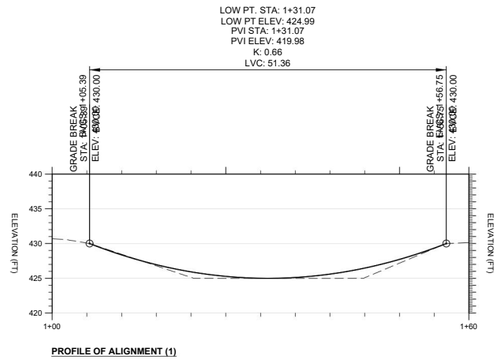
CONCEPTUAL
CIVIL
HYDROLOGY
HYDRAULIC
OUTFALL
SCHEMATIC

SHEET NO:

C-4.1







PROFILE OF ALIGNMENT (1)

LEGEND

- CENTERLINE
- EASEMENT LINE
- PROPERTY LINE
- PROPOSED LEASE LINE
- EXISTING CHAIN LINK FENCE
- PROPOSED FENCE
- SD — STORM DRAIN PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- ORDINARY HIGH WATER MARK
- PROPOSED CONSTRUCTION ACCESS

LOW-WATER CROSSING TOTAL QUANTITIES

DISTURBED AREA (SF)	EXCAVATED VOLUME (CY)	TOTAL CUT VOLUME (CY)	TOTAL IMPORTED FILL VOLUME (CY)	RIP RAP VOLUME (CY)
1,600	18	1	17	30

LOW-WATER CROSSING OHWM QUANTITIES

DISTURBED AREA (SF)	EXCAVATED VOLUME (CY)	CUT VOLUME (CY)	IMPORTED FILL VOLUME (CY)	RIP RAP VOLUME (CY)
650	7	1	6	12

UTILITY STATEMENT
LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE BEEN TAKEN FROM DRAWINGS AND FIELD LOCATES SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES. UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

811 Know what's below. Call before you dig.

COFFMAN ENGINEERS
1939 Harrison Street, Suite 320
Oakland, CA 94612
ph 510.251.9578
www.coffman.com

POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM

LEVY ALAMEDA, LLC

NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	5/5/25	REV 2
1	1/17/25	REV 1

PROJ. NO. 232059
DRAWN LB
CHECKED RB
DATE ~~7/15/24~~ 7/17/24

© COFFMAN ENGINEERS INC.

SHEET TITLE:

CONCEPTUAL ACCESS ROAD SCHEMATIC

SHEET NO:

C-4.2

SHEET OF 7

Appendix C BIOLOGICAL RESOURCES TECHNICAL REPORT

Appendix D SITE PHOTOS

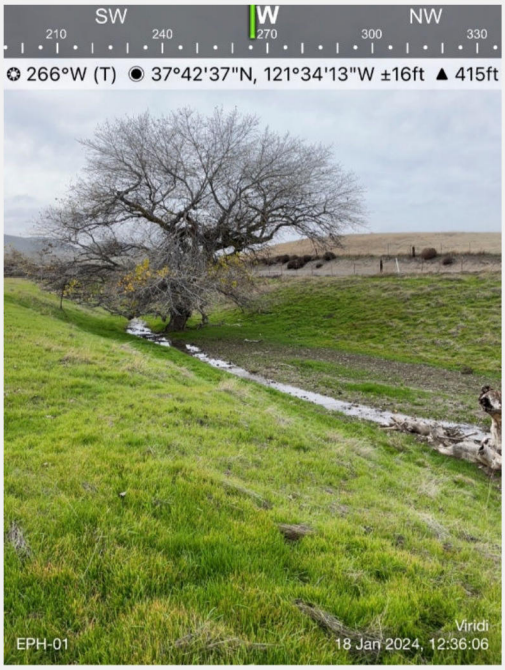


Photo 1 Low water crossing site, facing West. Photo taken during the aquatic resources delineation fieldwork, January 18, 2024

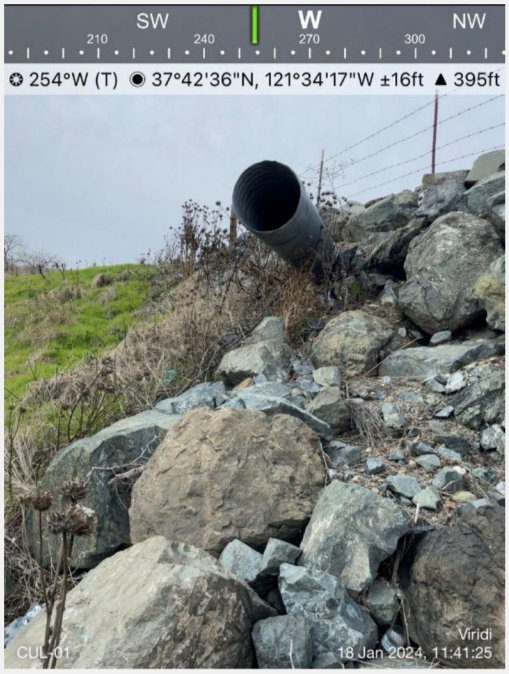


Photo 2. Outfall site, facing West. Photo taken during the aquatic resources delineation fieldwork, January 18, 2024.

Photo 3. Outfall site, facing North. Photo taken during the aquatic resources delineation fieldwork, January 18, 2024

Photo 4. Outfall site, facing South and downstream Patterson Run. Photo taken during the aquatic resources delineation fieldwork, January 18, 2024.

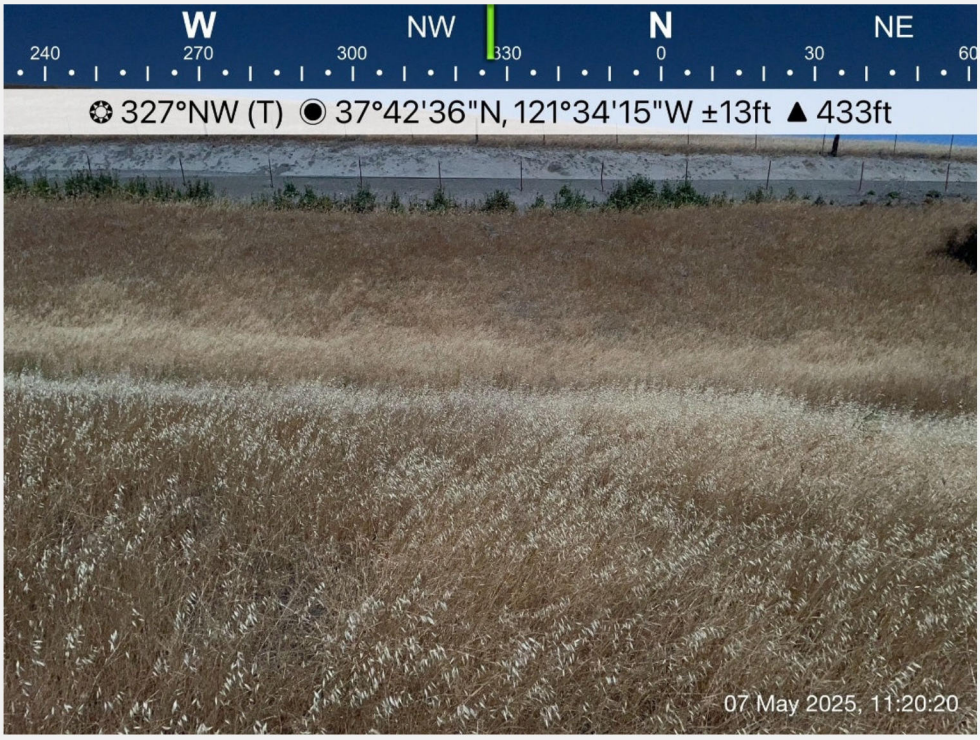


Photo 5. Low Water Crossing, facing Northwest. Photo taken during follow-up survey May 7, 2025.

Photo 6. Outfall site, facing Northwest. Photo taken during follow-up survey May 7, 2025.