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Appendix 1L

Temporary Impact Revegetation and Restoration Plan

Temporary Impact Revegetation and Habitat Restoration Plan

Potentia-Viridi Battery Energy Storage Project Alameda County, California

JULY 2024

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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

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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) 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 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 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 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.

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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 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 Revegetation Area Fencing

Following removal of construction infrastructure, 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 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 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
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

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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.

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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.

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7 References

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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.

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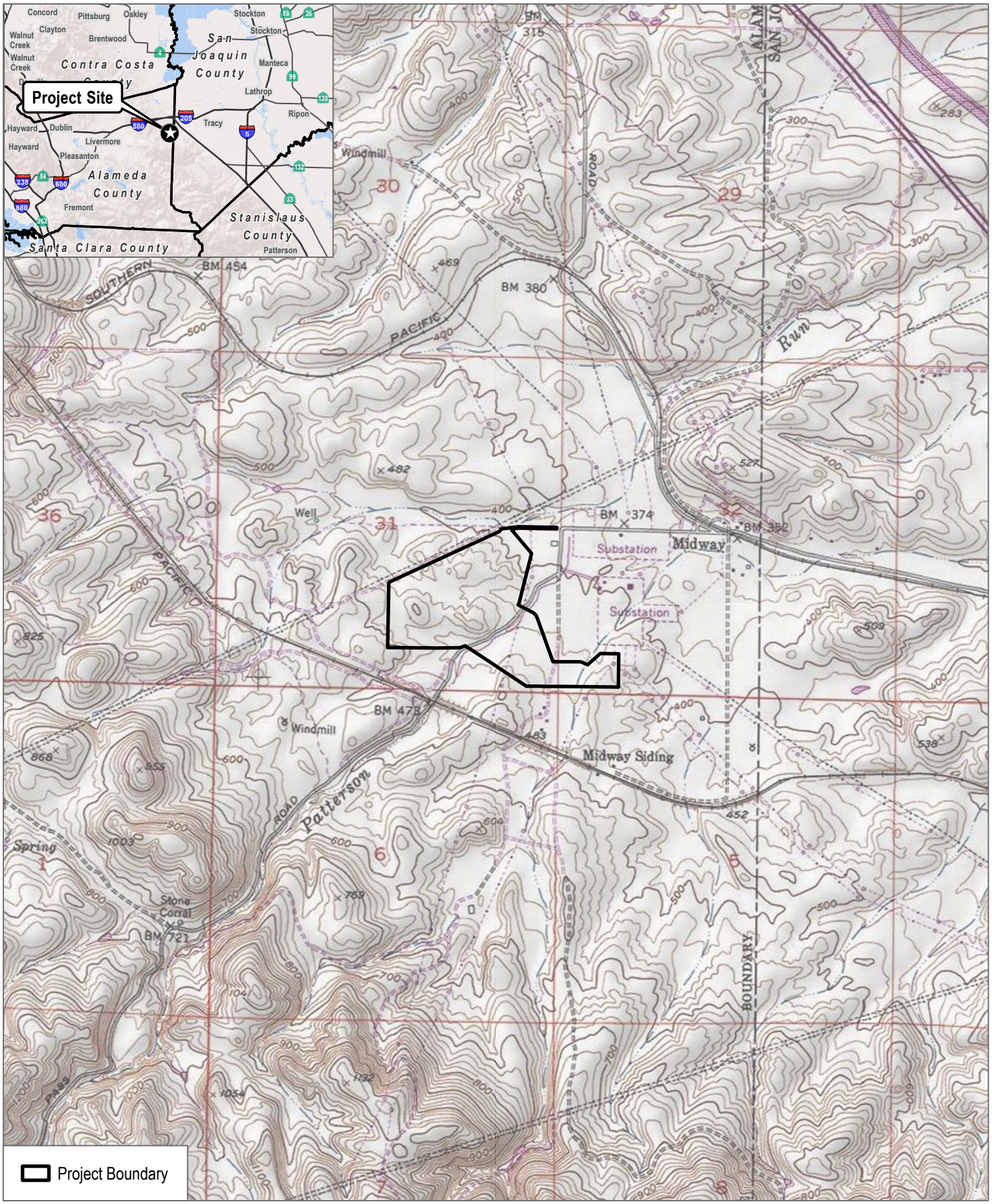

SOURCE: USGS 7.5 Minute Quadrangle Series

DUDEK

0 500 1,000 Feet

FIGURE 1

Project Location

Potenta Viridi BESS Project

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SOURCE: Bing Maps 2023

DUDEK

0 270 540 Feet

FIGURE 2

Project Site Aerial

Potenta Viridi BESS Project

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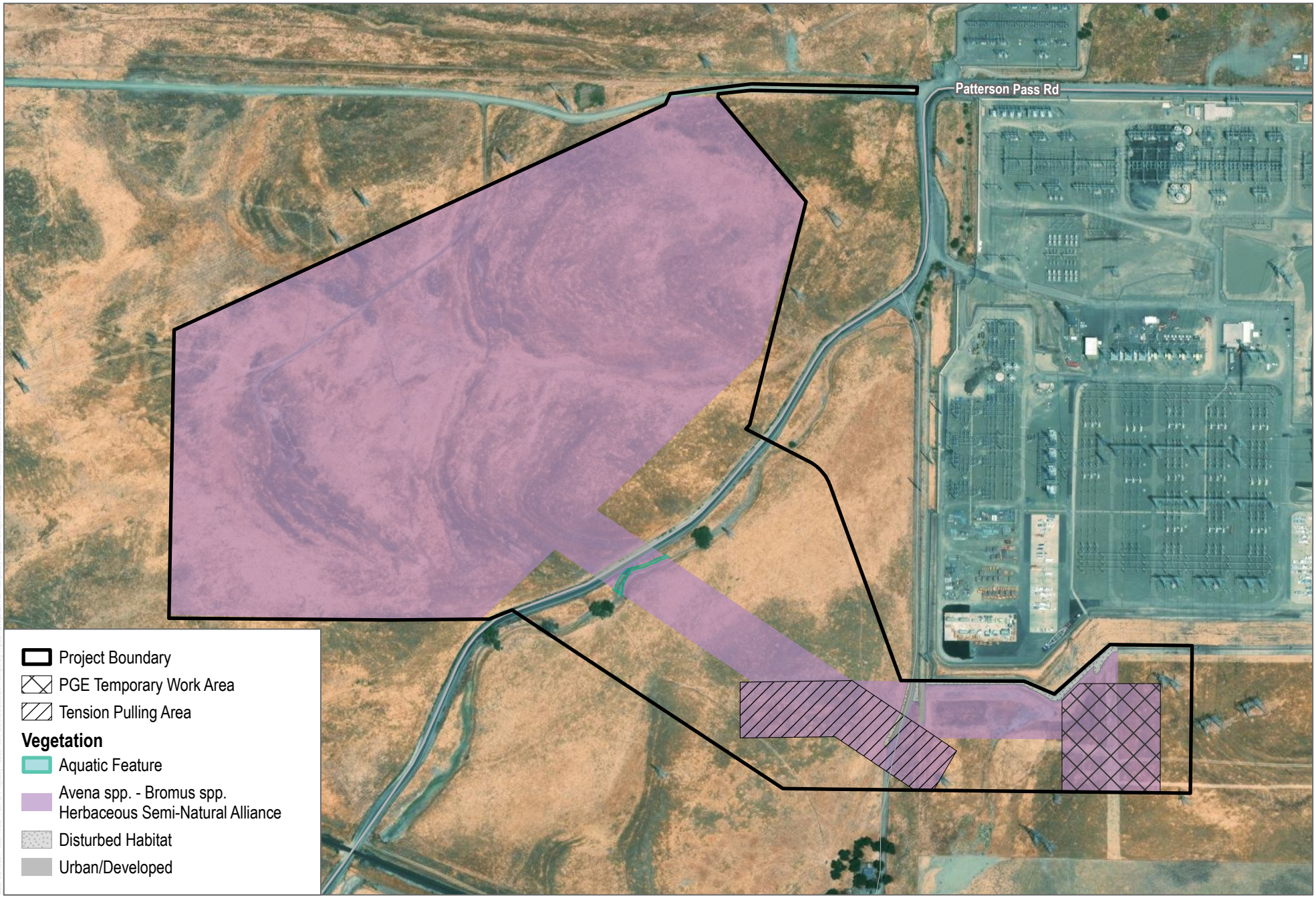

SOURCE: Bing Maps 2023

DUDEK

0 230 460 Feet

FIGURE 3

Vegetation and Land Cover

Potentia Viridi BESS - Temporary Impact Revegetation Plan

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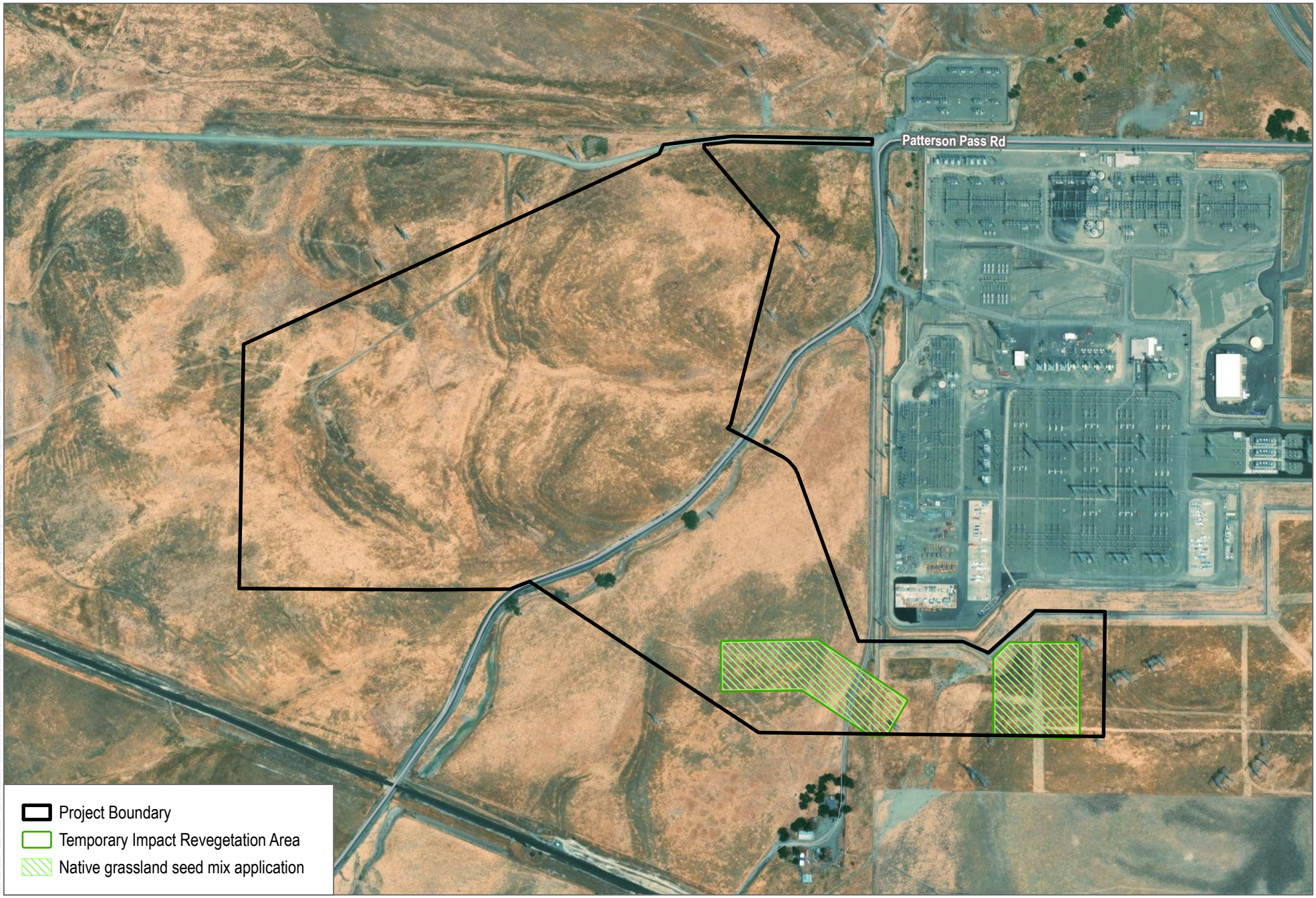

SOURCE: Bing Maps 2023;

DUDEK

0 270 540 Feet

FIGURE 4

Revegetation Plan

Potentia Viridi BESS - Temporary Impact Revegetation Plan

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