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| **Docket Number:** | 24-OPT-04 |
| **Project Title:** | Potentia-Viridi Battery Energy Storage System |
| **TN #:** | 261444 |
| **Document Title:** | DR Response 3 - Attachment 1, Revised Section 3-2, Biological Resources |
| **Description:** | This revised section describes the potential effects the construction, operation, and decommissioning activities associated with the proposed Project may have on biological resources at and in the vicinity of the project site |
| **Filer:** | Ronelle Candia |
| **Organization:** | Dudek |
| **Submitter Role:** | Applicant Consultant |
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# Attachment 1

Revised Section 3.2

# 3.2 Biological Resources

This section describes the potential effects the construction, operation, and decommissioning activities associated with the Project may have on biological resources at and in the vicinity of the Project site. The information presented is based on a site-specific biological technical report and readily available resources provided online. The evaluation of biological resources includes the following elements:

- Section 3.11.1 describes the existing environment that could be affected, including a regional overview, wetlands, habitats, species, vegetation, and biological survey results;
- Section 3.11.2 provides an overview of the regulatory setting related to soils;
- Section 3.11.3 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning;
- Section 3.11.4 discusses cumulative effects
- Section 3.11.5 identifies mitigation measures that should be considered during Project construction, operation, maintenance, and decommissioning;
- Section 3.11.6 presents laws, ordinances, regulations, and standards (LORS) applicable to soils;
- Section 3.11.7 identifies regulatory agency contacts;
- Section 3.11.8 describes permits required for the Project related to geologic resources; and
- Section 3.11.9 provides references used to develop this section.

This section describes the existing biological resource conditions of the Potentia-Viridi Battery Energy Storage System (BESS) Project (Project) site and vicinity, identifies associated regulatory standards, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project. The biological resources described in this section have been compiled from a literature review of databases, maps, general plans, biological reconnaissance conducted in March and August 2023, as well as focused species/resource surveys conducted throughout spring and summer 2023 and 2024 by Dudek biologists. Biologist's credentials, as well as occurrence record data used for the preparation of this section is located in the following appendices:

- Appendix 3.2A - Biological Technical Report, prepared by Dudek, ~~July 2024~~revised January 2025
- Appendix 3.2B Resumes of Applicant's Biologists
- Appendix 3.2C CNDDB Forms
- Appendix 3.2D – Nationwide Permit Pre-Construction Notification Supplemental Information, prepared by Integral Consulting Inc., June 2024
- Appendix 3.2E – Incidental Take Permit Application, prepared by Stantec, July 2024
- Appendix 3.2F – 1602 Lake and Streambed Alteration Agreement Application, prepared by Stantec, July 2024
- Appendix 3.2G – Nitrogen Deposition Model

## 3.2.1 Affected Environment

The Project would be constructed on approximately 70 acres in the northeastern portion of unincorporated Alameda County, California. The Project is located at 17257 Patterson Pass Road within Assessor Parcel Numbers (APN)

99B-7890-002-04 (BESS facility) and 99B-7890-2-4, 99B-7890-2-6, 99B-7885-12 (gen-tie alignment; Alameda County 2024).

The Project site refers to the area that would be physically affected by construction activities associated with the Project, including the location of permanent structures as well as staging and other temporary disturbance areas described in Section 2, Project Description. For the purposes of the biological surveys, the Study Area (approximately 96 acres) encompasses the Project site as well as a 50-ft buffer surrounding the BESS site and the gen-tie alignment. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources. Focused survey methods are described below in Section 3.2.1.5, Biological Surveys.

The Study Area is a mostly undeveloped area adjacent and directly west of the PG&E Tesla substation (referred to as Altamont Pass Wind Substation on some maps) on Patterson Pass Road. Patterson Pass Road runs through the Study Area northeast to southwest from the substation. Patterson Run (a seasonal stream channel) runs along the eastern border of Patterson Pass Road. The Study Area is bordered to the north by a dirt-gravel access road. The Altamont Corridor Express railway runs northwest to southwest through the southwest portion of the Study Area. Two PG&E transmission line corridors cross the Study Area. One transmission corridor runs northeast to southwest through the northern portion. The second transmission corridor runs north-northeast to south-southwest through the southeastern portion of the Study Area. Elevation in the Study Area ranges from approximately 403 to 536 feet above mean sea level (Google Earth Pro 2024).

Land use surrounding the Study Area consists of The Altamont Pass Wind Resource Area occurring to the west (including north- and southwest; Hull 2012; Thelander and Rugge 2000). Most of the Study Area and surrounding area consists of rolling hills and grasslands intermittently used for livestock grazing (ICF 2010).

### 3.2.1.1 Regional Overview

The Study Area is mostly undeveloped, and the regional land use has remained largely unchanged since the 1980s based on aerial imagery (Google Earth Pro 2024). The Study Area is located in the east-northeastern portion of Alameda County, California. Regionally, the Study Area occurs at the foot of the Altamont Pass near the San Joaquin Valley. The Study Area occurs approximately 2.5 miles west of the City of Tracy, southwest of where Interstate 205 intersects and becomes Interstate 580. Patterson Run is a seasonal stream system that runs parallel to Patterson Road through the Study Area, flows in a northerly direction, and eventually terminates approximately 2.3 miles northeast of the Study Area in agricultural land just north of the Delta Mendota Canal. (EPA 2024). The Study Area is located on the Midway, California, U.S. Geological Survey 7.5-minute map on Section 31; Township 2S; Range 4E. The Principal Meridian (centroid) of the Study Area is at latitude 37.710926°, -121.575397°.

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

### 3.2.1.2 Significant Regional Wetlands and Protected Areas

The National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), and the Environmental Protection Agency (EPA) Waters GeoViewer (2.0) were reviewed to identify wetland or hydrologic features (USFWS 2024, USGS 2024, EPA 2024). ~~Figure 3.2-7 depicts the mapped wetland and hydrologic features at and within the Study Area vicinity.~~

Protected areas were determined through a review of the California Protected Area Database (CPAD) and California Conservation Easement Database (CCED) mapping tools (CPAD 2024) as well as the East Alameda County Conservation Strategy (ICF 2010) and the Data Basin (Data Basin 2024). Protected areas are depicted graphically in Figure 3.2-1, Protected Areas.

### 3.2.1.2.1 Hydrologic Features

The Study Area occurs within the North Diablo Range of the Alameda Creek Watershed (USGS 2024). According to the NWI there are several freshwater ponds, freshwater wetlands, and riverine aquatic features in the vicinity of the Project. The NWI mapped resources are based on coarse aerial mapping and do not involve ground-truthing. The NHD and EPA show Patterson Run and one other unnamed stream system crossing the Study Area running from south to north within the northern portion of the Project site. Both streams are classified in NWI as having portions of Riverine (R4SBC) and Freshwater Emergent Wetland (PEM1A). Patterson Run is a seasonal stream system that runs parallel to Patterson Road through the Study Area and connects to the California Aqueduct systems to the north (EPA 2024).

In January 2024, Dudek biologists conducted a jurisdictional delineation to determine the accuracy of the NWI/NHD data and the presence/absence of potentially jurisdictional resources throughout the Study Area (Appendix 3.2A, Biological Technical Report). The formal wetland delineation was performed in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987) and results are included as part of Appendix 3.2A.

### 3.2.1.2.2 Protected Areas

The California Protected Areas Database (CPAD) is a database that includes lands that are owned and protected for open space purposed by over 1,000 public agencies or non-profit organizations. CPAD includes national, state, or regional parks, forests, preserves and wildlife areas. It also includes large and small urban parks; land trust preserves and special district open space lands (CPAD 2024).

A review of the CPAD and California Conservation Easement Database (CCED) confirmed that there are several protected areas or conservation easements within a 5-mile radius of the Study Area. Figure 3.2-1 depicts protected areas identified within a 10-mile radius of the Project. A description of the CPAD and CCED identified areas that occur within the 10-mile buffer of the Project is provided below.

#### CPAD

##### Mendoza Ranch

The nearest protected area is the Contra Costa Water District's Mendoza Ranch (Unit ID 49792), located approximately 1-mile northwest of the Project site.

#### CCED

The CCED is a database that defines boundaries of easements and deed-base restrictions on private lands. These lands may be actively farmed, grazed, forested, or held as nature preserves and typically have no public access (CPAD 2024). The following easements were mapped within 10 miles of the Project:

#### Haera Mitigation Bank

The nearest mapped conservation easement is the Wildlife Heritage Foundation Haera Mitigation Bank (CCED ID 2073), located adjacent to and north of Project site.

#### Two Sisters Conservation Area

The second nearest conservation easement is the Two Sisters Conservation Area (CCED ID 12132) directly south of the Project site.

### East Alameda County Conservation Strategy (EACCS)

The Study Area is covered under the EACCS. Alameda County, along with the Golden Gate Audubon Society and several private wind energy companies, are currently developing a regional conservation plan for the wind resource area. This area is located in the northeastern part of Alameda County, extending to the Contra Costa and San Joaquin County lines on the north and east, and through the Altamont Hills to the west. The East Alameda County Conservation Strategy is intended to provide an effective framework to protect, enhance, and restore natural resources in eastern Alameda County, while improving and streamlining the environmental permitting process for impacts resulting from infrastructure and development projects (ICF 2010).

The Study Area is mapped in the EACCS within the Wind Resource Area: This area has special designation due to existing wind energy facilities and the intention to continue to develop and utilize wind resources in the future. This designation is primarily to facilitate real estate disclosures about existing wind energy facilities and the potential for future wind facility uses. The designation also restricts changes in land use that are incompatible with future wind energy generation (ICF 2010).

### Data Basin - East Bay Botanical Priority Protection Areas (CNPS)

The Study Area is located within the East Bay Chapter Area (EBCA). The EBCA supports a unique congregation of ecological conditions and native plants. The collision of floristic protection and economic growth conceived the Botanical Priority Protection Areas Project (BPPA) and fortified intra-chapter collaboration between the Plant Science and Conservation arms of the East Bay Chapter of the California Native Plant Society (CNPS; Data Basin 2024). The Study Area is within the East Bay Botanical Priority Protection Area S.

## 3.2.1.3 Sensitive Habitat Types and Critical Habitat

Sensitive habitat types and critical habitats within a 5-mile radius of the Project are shown in Figure 3.2-2, Sensitive Habitat Types, and Figure 3.2-3, Critical Habitats. The descriptions of the sensitive and critical habitats identified are described below.

## 3.2.1.3.1 Sensitive Habitat Types

CDFW defines sensitive habitats as plant communities that have limited distributions, high wildlife value, include sensitive species, or are particularly vulnerable to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in the California Natural Diversity Database (CDFW 2024a). Currently, CDFW publishes the California Sensitive Natural Communities List online (CDFW 2024b Vegetation rarity ranking is based on a rank calculated developed by NatureServe. Vegetation maps were taken

from the CDFW Vegetation Classification Reports and Maps (CDFW 2024c). CDFW's Vegetation Program considers vegetation alliances with state ranks of S1-S3 as sensitive vegetative habitats. CDFW considers species or natural communities with one of the following NatureServe rankings as sensitive: Global (G)/State (S); Presumed Extinct (X); Possibly Extinct (G/S H); Critically Imperiled (G/S 1); Imperiled (G/S 2); Vulnerable (G/S 3). CEQA requires that impacts to sensitive natural communities be evaluated and mitigated to the extent feasible. The following six sensitive natural communities occur within the nine surrounding quads: Alkali Meadow, Alkali Seep, Northern Claypan Vernal Pool, Valley Needlegrass Grassland, Great Valley Oak Riparian Forest, and Sycamore Alluvial Woodland. There are no sensitive natural communities mapped within the Study Area.

#### 3.2.1.3.2 Critical Habitat

Critical habitats are designated areas occupied by the species at the time it was listed that contain the physical or biological features that are essential to the conservation of endangered and threatened species. In designated critical habitat, U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) consider the following requirements of the species:

> "Space for individual and population growth, and for normal behavior; nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing offspring; and, generally, any habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of this species (USFWS 2017)."

There is DCH for multiple species within 5 miles of the Study Area (Figure 3.2-3).

**California Red-Legged Frog:** There is DCH for CRLF overlapping the Study Area and extending to the north and southwest (USFWS 2023a), in areas of undeveloped or rural agricultural lands. Critical habitat for CRLF consists of four primary constituent elements (PCEs), which support different components of the species' life history, as last updated by USFWS in 2010 (75 FR 12816-12959):

1. Aquatic Breeding Habitat: Standing bodies of fresh water including natural and manmade (e.g., stock) ponds, slow-moving streams, pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in most years.
2. Aquatic Non-Breeding Habitat: Freshwater aquatic habitats that may not hold water long enough for the species to complete its aquatic life cycle, but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult CRLF. These may include breeding habitat as described above, as well as plunge pools within intermittent creeks, seeps, quiet water refugia within streams, and flowing springs.
3. Upland Habitat: Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to 1 mi (1.6 km), depending on surrounding landscape and dispersal barriers. Upland habitat may include grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance with structural features such as boulders, rocks, and organic debris (e.g., downed trees, logs), small mammal burrows, or moist leaf litter.
4. Dispersal Habitat: Accessible upland or riparian habitat within and between occupied locations within a minimum of 1 mi (1.6 km) of each other and that support movement between such sites. Dispersal habitat includes various natural or moderately altered habitats (such as agricultural fields) that do not contain dispersal barriers. Dispersal habitat does not include moderate- to high-density urban or industrial developments, nor does it include large (>50 ac) lakes or reservoirs.

PCEs 3 and 4 (upland and dispersal habitat) are present on the Study Area, and PCEs 1 and 2 (aquatic breeding and nonbreeding habitat) are present within dispersal distance (1 mile) of the Study Area.

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

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

**Large-Flowered Fiddleneck:** There is DCH for large-flowered fiddleneck (*Amsinckia grandiflora*) approximately 4.5 miles south of the Study Area (USFWS 2023d). This species is not expected to occur within the Study Area due to being outside of the known elevation range of the species.

### 3.2.1.3.2.1 Essential Fish Habitat

Essential Fish Habitat (EFH) on the west coast is managed by the National Oceanic and Atmospheric Administration (NOAA) and the Pacific Fishery Management Council (PFMC) under the Magnuson-Stevens Act of 1976 to protect habitat for federally managed fish species across life stages (NOAA 2023). EFH is broadly mapped as the geographic area wherein a fish species may occur at any time in its life and is designated at the watershed level of the USGS 4th field hydrologic unit to account for variability in freshwater habitats over time (PFMC 2014, 2022). Thus, mapped EFH may encompass terrestrial habitats that do not currently provide appropriate conditions for target fish species but are within the same watershed as the species' known distribution and may become suitable habitat as environmental conditions change (e.g., droughts, floods, etc.).

**Pacific coast salmon:** The Study Area overlaps with designated freshwater EFH for Pacific coast salmon. Specifically, the Pacific Salmon Fishery Management Plan (PFMC 2014, 2022) identifies freshwater EFH for Chinook salmon (*Oncorhynchus tshawytscha*) in the San Joaquin Delta hydrologic unit (HUC-8 18040003), which includes the Study Area within the Old River watershed. Freshwater EFH for Chinook salmon consists of four major activities: (1) spawning and incubation; (2) juvenile rearing; (3) juvenile migration corridors; and (4) adult migration corridors and adult holding habitat (PFMC 2014, 2022). Chinook salmon EFH includes all freshwater habitat currently or historically occupied in Washington, Oregon, Idaho, and California (PFMC 2014, 2022).

There is additional designated EFH for both Chinook and coho salmon (*Oncorhynchus kisutch*) in the San Francisco Bay hydrologic unit (HUC-8 18050004) approximately 3.5 miles southwest of the Study Area. There is no EFH for central California coast steelhead (*Oncorhynchus mykiss irideus*) within 5 miles of the Study Area (NOAA 2005). There are currently no aquatic habitats with flowing water suitable for salmonids within the Study Area.

### 3.2.1.4 Regional Sensitive or Special-status Species

Appendix 3.2A contains a list of special-status species found within the 9 surrounding quads of the Study Area during literature review. This appendix includes the status designation for each species, habitat types that may support these species in the regional vicinity, a determination of potential for these species to occur within the Study Area, and a rationale for the occurrence determination. Sensitive or special-status species meet at least one or more of the following criteria:

- Regional species listed as threatened or endangered that have special requirements under the federal Endangered Species Act (FESA) (USFWS 1973);
- Regional species listed as threatened or endangered that have special requirements under the California Endangered Species Act (CESA) (Fish and Game Code, Section 2050 seq.);
- Other non-listed sensitive and special-status species, including California Native Plant Society (CNPS) CRPR 1-4 species, CDFW Species of Special Concern (SSC), CDFW Fully Protected (FP) species, and other CDFW Special Animals.

The CNDDB was used in preparing Appendix 3.2A. The results of the special-status species identified during the biological reconnaissance, protocol-level rare plant survey, California red-legged frog (CRLF) and California tiger salamander (CTS) Habitat assessments, focused burrow and protocol-level burrowing owl surveys are discussed in Sections 3.2.1.5. Figure 3.2-4, (CONFIDENTIAL) Special-Status Species Occurrence Records, depicts the special-status plant and wildlife species known to occur within a 10-mile radius of the Project area. No special-status species are known to occur in the Study Area.

### 3.2.1.5 Biological Surveys

In March 2023, Dudek biologists conducted vegetation mapping and a general biological reconnaissance of the Study Area. Focused surveys were conducted throughout 2023, and 2024 by Dudek biologists to determine the presence/absence of various special-status species. Specifically, Protocol-Level Rare Plant, CRLF and CTS Habitat Assessment surveys, protocol-level burrowing owl surveys were conducted within the Study Area. The focused habitat assessment for CRLF and CTS was conducted for suitable and accessible aquatic features within 1 mile of the Study Area. Further, Dudek conducted a jurisdictional delineation in January 2024 to assess potentially jurisdictional features within the Study Area. Table 3.2-1 lists the dates, conditions, and focus for each survey.

**Table 3.2-1. Schedule of Surveys**

| Date | Survey Type(s) | Biologists | Time | Survey Conditions |
|---|---|---|---|---|
| 03/31/2023 | Reconnaissance (original Project site boundary only, excludes gen-tie) | Emily Scricca; ~~EFC~~Erin Fisher-Colton | 9:30 a.m.–11:30 a.m. | 58°F–61°F, 75%–90% cloud cover, 1–4 mph wind |
| 05/16/2023 | ▪ Protocol-Level Botanical<br>▪ Focused Burrow Surveys | Kelsey Higney; Lorna Haworth | 8:41 a.m.–11:15 a.m. | 80°F–85°F, 0% cloud cover, 0–6 mph wind |
| 08/02/2023 | ▪ Reconnaissance (gen-tie alignment only)<br>▪ Protocol-Level Botanical<br>▪ Focused Burrow Surveys | Kelsey Higney; ~~EFC~~Erin Fisher-Colton | 9:23 a.m.–4:54 p.m. | 71°F–80°F, 0% cloud cover, 5–20 mph wind |

## Table 3.2-1. Schedule of Surveys

| Date | Survey Type(s) | Biologists | Time | Survey Conditions |
|---|---|---|---|---|
| | ▪ Protocol-level California Red-Legged Frog (CRLF) and California Tiger Salamander (CTS) Habitat Assessment | | | |
| 01/18/2024 | ▪ Reconnaissance (adjusted gen-tie alignment only)<br>▪ Protocol-Level Botanical (adjusted gen-tie alignment only)<br>▪ Focused Burrow Surveys (adjusted gen-tie alignment only)<br>▪ Aquatic Resources Delineation | Mikaela BissellB; ~~EFC~~Erin Fisher-Colton | 9:16 a.m.-2:30 p.m. | 50°F–58°F, 80%-100% cloud cover, 1-4 mph wind |
| 04/12/2024 | ▪ Protocol-level Burrowing Owl Survey – Pass 1<br>▪ Follow-up burrow assessment for San Joaquin Kit Fox and American Badger<br>▪ Protocol-level rare plant survey | Mikaela BissellB, ~~TJ-K~~ara Johnson-Kelly | 8:30 a.m. – 2:00 p.m. | 55°F–60°F, 0%-10% cloud cover, 10-14 mph wind |
| 05/03/2024 | ▪ Protocol-level Burrowing Owl ~~survey~~ Survey – Pass 2 | ~~KH~~Kelsey Higney, ~~TJ-K~~Tara Johnson-Kelly | 7:00 a.m. – 12:00 p.m. | 56°F–71°F, 0% cloud cover, 10-15 mph wind |
| 05/24/2024 | ▪ Protocol-level Burrowing Owls Survey – Pass 3 | ~~TJ-K, PK~~Tara Johnson-Kelly, Paul Keating | 7:00 a.m. – 12:00 p.m. | 57°F–64°F, 0%-10% cloud cover, 10 mph wind |
| 06/17/2024 | ▪ Protocol-level Burrowing Owl Survey – Pass 4<br>▪ Protocol-level rare plant survey | Paul Keating~~PK~~ | 3:00 p.m.–7:00 p.m. | 82°F–78°F, 0% cloud cover, 15-20 mph wind |
| 12/12/2024 | ▪ Protocol-level winter Burrowing Owl Survey – Pass 1<br>▪ Swainson's Hawk Habitat Survey/Protocol-level Nesting Survey<br>▪ Golden Eagle Habitat Survey/Protocol-level Nesting Survey | Paul Keating, Alex Freeman | 7:30 a.m. – 12:00 p.m. | 45°F–56°F, 90-100% cloud cover, 5-10 mph wind |
| 01/04/2025 | Protocol-level winter Burrowing Owl Survey – Pass 2 | Paul Keating | 7:30 a.m. – 11:00 p.m. | 40°F–53°F, 0%-10% cloud cover, 10-15 mph wind |
| 01/11/2025 | Protocol-level winter Burrowing Owl Survey – Pass 3 | Paul Keating | 7:30 a.m. – 11:00 p.m. | 41°F–60°F, 0%-5% cloud cover, 5-10 mph wind |

**Notes:** CRLF = California red-legged frog; CTS = California tiger salamander. Where more than one biologist is indicated, surveys were performed jointly.

~~Personnel: ES = Emily Scricca; EFC = Erin Fisher-Colton; KH = Kelsey Higney; LH = Lorna Haworth; MB = Mikaela Bissell; TJ-K = Tara Johnson-Kelly; PK = Paul Keating~~

## Reconnaissance Survey

- **Vegetation Mapping.** On March 31, 2023, Dudek Biologists Emily Scricca and Erin Fisher-Colton mapped vegetation communities directly from the field utilizing the Esri ArcGIS Field Maps application. The Field Maps application applies satellite coordinates to an aerial view of the Study Area. Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS, and a GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present within the Study Area was determined. Native plant community classifications used in this report follow the Habitat Classification System for CDFW Natural Communities (CDFW 2024b) and California Native Plant Society's A Manual of California Vegetation (Sawyer et al. 2009). The initial mapping of the Study Area used an approximately 0.25-acre minimum mapping unit for vegetation community polygons (i.e., clusters of particular vegetation types smaller than 0.25 acres were not necessarily mapped separately from the surrounding, larger vegetation community).
- A follow-up reconnaissance-level field survey was conducted for the updated Study Area that included the Project site and buffered gen-tie alignment of the Project area on August 2, 2023, in conjunction with the surveys for rare plants, and burrows. This survey was conducted on foot to identify vegetation communities in the updated Study Area boundaries.
- **Biological Survey.** The potential for occurrences of special-status plant and wildlife species, resulting from the literature review, were assessed in relation to the Study Area and available habitat. All plant and wildlife species encountered during the reconnaissance survey were documented in a notebook and using Esri ArcGIS Field Maps. A comprehensive list of all plant and wildlife species observed is included in Appendix 3.2A.
- **Aquatic Resources.** During the August 2, 2023, reconnaissance survey, a reconnaissance-level wetland assessment was conducted in the Study Area. The focus was to determine if there were any potential jurisdictional waters on the site that would require further protocol jurisdictional delineations.

## Jurisdictional Delineation and Updated Jurisdictional Delineation.

In January 2024, Dudek biologists conducted a formal jurisdictional wetlands delineation within the Study Area. All areas identified as being potentially subject to the jurisdiction of USACE, RWQCB, and CDFW were field-verified and mapped. The wetlands delineation was performed in accordance with the methods prescribed in the 1987 Wetlands Delineation Manual (USACE 1987), the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008), and the ACOE and Environmental Protection Agency Rapanos Guidance (USACE and EPA 2008). Methods and results of the formal aquatic resources delineations are summarized in Section 3.2.2.2.9 *Impacts to Wetlands and Waters of the United States*

## Rare Plant Surveys

Protocol-level rare plant surveys were conducted on May 16 and August 2, 2023, and April 12 and June 17, 2024, to identify special-status rare plant species within the updated Study Area boundaries. Dudek qualified biologists surveyed the entire Study Area on foot in approximately 20-meter parallel transects to provide complete visual coverage within the updated Study Area boundaries and gen-tie alignment. Rare plants surveys were conducted in accordance with the Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 2000), the Protocol for Surveying and Evaluating Impacts to Special-Status Native

Plant Populations and Sensitive Natural Communities (CDFW 2018), and the CNPS Botanical Survey Guidelines (CNPS 2001). Rare plants occurrences were mapped using ArcGIS Field Maps (Esri).

All plant species encountered during the field were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (formerly California Native Plant Society List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2024a). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2024), and common names follow the California Natural Communities list (CDFW 2024b) or the United States Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2023).

### Focused Burrow Surveys

Focused burrow surveys were conducted on May 16 and August 2, 2023, to identify a variety of animal burrows within the updated Study Area boundaries. Additional surveys to assess burrow suitability for San Joaquin kit fox and American badger were conducted on April 12, 2024. The subsequent assessment for San Joaquin kit fox and American badger followed recommendations outlined in the San Joaquin Kit Fox Survey Protocol for the Northern Range (USFWS 1999). Dudek qualified biologists surveyed the entire Study Area on foot in approximately 20-meter parallel transects to provide complete visual coverage within the updated Study Area boundaries and gen-tie alignment. Burrows of all sizes were mapped using ArcGIS Field Maps (Esri). Burrows present on the site were generally small and not suitable for burrowing owls. Higher-quality habitat with low, grazed vegetation and ground squirrel colonies were observed throughout the surrounding landscape.

### Protocol-level Burrowing Owl Survey

Surveys for western burrowing owl were conducted by Dudek qualified biologists on April 12, May 3, May 24, and June 17, 2024. Follow-up wintering burrowing owl surveys were conducted on December 12, 2024, and January 4 and 11, 2025. Surveys followed recommended protocol outlined in Appendix D of the Staff Report on Burrowing Owl Mitigation (CDFW 2012). Surveys utilized data collected during the focused burrow surveys (Section 4.3.3) to walk transect no more than 20 meters apart within the Study Area. Biologists documented any sight or sign of western burrowing owl during the survey.

### Protocol-Level California Red-Legged Frog Habitat Assessment

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

### Protocol-Level California Tiger Salamander Habitat Assessment

Concurrently with the CRLF habitat assessment (4.3.6), a protocol-level habitat assessment for California tiger salamander was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the STUDY AREA to identify potential aquatic breeding sites within dispersal distance of the STUDY AREA. Not all

aquatic habitats within 1.24 miles were able to be surveyed due to access restrictions. Habitat assessments were conducted in accordance with the USFWS Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS 2003). Aquatic features were coarsely mapped along top of bank using ArcGIS Field Maps (Esri).

### 3.2.1.6 Nitrogen Deposition Model

A nitrogen deposition analysis was performed to assess the Proposed Project's operational impact on biological resources within 6 miles of the Project site. During operation, there would be emissions of oxides of nitrogen (NOx) from the testing, maintenance, and emergency use of two diesel backup generators. These emissions would result in nitrogen deposition around the Project site. The Proposed Project would include two Rolls Royce generators rated at 4,680 horsepower each. Each generator is fitted with an ecoCUBE with a selective catalytic reduction (SCR), diesel particulate filter (DPF), and diesel oxidation catalyst allowing the generators to meet the U.S. EPA Tier 4 standard. In order to determine the potential impacts during operation, the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model (AERMOD) Version 23132 was used to model the concentration of nitrogen around the project site using wet and dry deposition algorithms. The emissions from the generators were estimated assuming compliance with the U.S. EPA Tier 4 standard and operation of up to 200 hours per year (100 hours for maintenance and testing and 100 hours for emergency use) (BAAQMD 2022). Ammonia ($NH_3$) is a product of combustion with equipment having SCR equipment. As the generators are equipped with SCR, emissions of $NH_3$ were estimated and added to the NOx emissions for total nitrogen emissions. Principal parameters of this modeling are presented in Table 3.2-2.

**Table 3.2-2. AERMOD Principal Parameters**

| Parameter | Details |
|---|---|
| Meteorological Data | The latest 3-year meteorological data (2013–2016) for the Livermore Station from BAAQMD were downloaded and then input to AERMOD. |
| Urban versus Rural Option | Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. However, based on the Auer method for classifying a site as urban or rural as specified in US EPA's 40 CFR Part 51, Appendix W, the rural dispersion option was selected. |
| Terrain Characteristics | The terrain in the vicinity of the modeled Project site is generally hilly. The elevation of the modeled site is about 125 meters above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate. |
| Elevation Data | Digital elevation data were imported into AERMOD, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a 30-meter resolution. |
| Emission Sources and Release Parameters | Air dispersion modeling of nitrogen from the emergency generators was conducted using emissions estimated using the CalEEMod and a spreadsheet model. The emergency generators were modeled as point sources. |
| Source Release Characterizations | The following source parameters were assumed: Generator 1, release height 16.5 feet, exit temperature 966.2°F, stack diameter of 2.3 feet, and gas exit flow rate of 24,791 cubic feet per minute (CFM); and Generator 2, release height 16.5 feet, exit temperature 966.2°F, stack diameter of 2.3 feet, and gas exit flow rate of 24,791 cubic feet per minute (CFM). |
| Receptors | A cartesian plant boundary was established with the following distances: 25 meter spacing out to 100 meters; 50 meter spacing out to 300 meters; 100 meter spacing out |

**Table 3.2-2. AERMOD Principal Parameters**

| Parameter | Details |
|---|---|
| | to 700 meters; 200 meters spacing out to 1,500 meters; 400 meter spacing out to 3,000 meters; 750 meter spacing out to 6,300 meters; 1,300 meter spacing out to 16,300 meters. |
| Gas Deposition | The land use in the region is currently mixed but primarily agricultural or rural/undeveloped. The "Land Use Category" of "2 – Agricultural Land" in AERMOD was selected. |
| NOx to $NO_2$ Conversion | A 100 percent conversion of NOx and $NH_3$ into atmospherically derived nitrogen (Tier 1). |
| Gas and Particle Deposition | Nitric Acid was assumed for the gas deposition parameters as it has a strong affinity for impacts to soils and vegetation. The default deposition velocity and parameters (pollutant reactivity factor and seasons) were assumed. The following gas deposition parameters were assumed:<br>▪ Pollutant Diffusivity in Air: 0.1628 $cm^2/s$<br>▪ Pollutant Diffusivity in Water: 2.98E-05 $cm^2/s$<br>▪ Cuticular Resistance: 100,000 s/cm<br>▪ Henry's Law Constant: 8E-08 $Pa\text{-}m^3/mol$ |

**Notes:** AERMOD = American Meteorological Society/EPA Regulatory Model; BAAQMD = Bay Area Air Quality Management District; $cm^2/s$ = centimeters squared per second; $Pa\text{-}m^3/mol$ = pascal-meters cubed per mole; $NH_3$ = ammonia; NOx = oxides of nitrogen; s/cm = seconds per centimeter.
See Appendix 3.2G for additional information.

The AERMOD model calculates atmospheric deposition of nitrogen by calculating the wet and dry fluxes of total nitrogen. This deposition is accomplished by using a resistance model for the dry deposition part, and by assigning particle phase washout coefficients for the wet removal process from rainout. As discussed above, depositional parameters for HNO3 are input into the model to calculate the deposition of nitrogen. AERMOD sums the results of the wet and dry nitrogen deposition to produce annual deposition rates in units of grams per square meter ($g/m^2$) for the entire 5-year meteorological period modeled, which are converted to kilograms per hectare per year (kg/ha/yr) for comparison to critical loads of nitrogen for biological resources within 6 miles of the Project site.

### 3.2.1.76 Land Cover Types and Vegetation Communities

The Study Area consists of mostly undeveloped lands, with a mix of non-native vegetation communities and non-vegetated land covers (Figure 3.2-5, Vegetation Communities and Land Cover Types). Only one vegetation community was mapped in the Study Area: wild oats and annual brome grassland *(Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance; CNPS 2024b). The remainder of the Study Area comprises disturbed/barren and urban/developed land cover types, as well as one aquatic land cover. These vegetation community and land covers are described in further detail below and are summarized in Table 3.2-23.

**Table 3.2-~~2~~3. Vegetation Communities and Land Cover Types in the Study Area**

| Vegetation Communities and Land Cover Types | Project Site (acres) | Gen-tie Line and 50-Foot Study Area Buffer (acres) | Total Study Area (acres) |
|---|---|---|---|
| **Native Vegetation Communities** | | | |
| N/A | — | — | — |
| **Non-Native Vegetation Communities and Land Covers** | | | |
| Wild oats and annual brome grassland | 57.29 | 36.87 | 94.16 |
| Disturbed/Barren | 0.16 | 0.62 | 0.78 |
| Urban/Developed | 0.20 | 1.38 | 1.58 |
| Aquatic – Patterson Run | 0.05 | 0.32 | 0.37 |
| *Subtotal* | *57.7* | *39.19* | *96.89* |
| **Total** | **57.7** | **39.19** | **96.89** |

Note: the Study Area includes a buffer and thus is larger than the proposed Project area.

### 3.2.1.~~7~~6.1 Wild Oats and Annual Brome Grassland

Only one vegetation community was mapped in the Study Area: wild oats and annual brome grassland (*Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance; CNPS 2024b; Figure 3.2-5). 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 2024b).

### 3.2.1.~~7~~6.2 Disturbed/Barren

Disturbed/Barren land covers consist of areas that have been disturbed, either through natural events such as landslides, shallow soils, or soil chemical composition, or through anthropogenic influence such as grading, herbicide use, or other earthwork. Disturbed/barren areas within the study area include areas treated with herbicide adjacent to the PG&E Tesla substation. This land cover does not typically support vegetation with the exception of sparse ruderal species.

### 3.2.1.~~7~~6.3 Urban/Developed

Urban/Developed land covers generally consist of human-made structures, including roadways. Urban/developed land covers within the Study Area consists largely of Patterson Pass Road, the railroad, and portions of the PG&E Tesla substation. This land cover does not typically support native vegetation.

### 3.2.1.~~7~~6.4 Aquatic Resources – Patterson Run

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

### 3.2.1.87 Sensitive and Special-Status Species

Endangered, rare, or threatened species, as defined in CEQA Guideline 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status species" in this document and include 1) endangered or threatened species recognized in the context of the CESA and/or FESA; 2) plant species with a California Rare Plant Rank (CNPS 2024a) (ranks 1 and 2); 3) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by CDFW (CDFW 2024f); 4) wildlife that are Fully Protected species, as described in California Fish and Game Code Sections 4700 and 3511; 5) Birds of Conservation Concern as designated by USFWS (2021); and 6) plant and wildlife species that are "covered" under the East Alameda County Conservation Strategy (Alameda County 1994). Refer to Section 3.2.5 for a full explanation of these relevant laws, ordinances, and regulations.

Dudek biologists evaluated the regional special-status plant and wildlife species against observed conditions on the study are to determine the potential for each species to occur. Habitat requirements, occurrence determinations, and rationale for occurrence determination are included in Appendix 3.2A. The potential for each special-status species to occur was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found onsite.
- **Present.** Species was observed on site or within the Study Area

#### 3.2.1.87.1 Special-status Plant Species

Special-status plant surveys were conducted in 2023 and 2024 to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guideline 15380 (14 CCR 15000 et seq.). A list of all special-status plant species known to occur in the vicinity of the Study Area (and the surrounding nine topographic quadrangles) including their habitat requirements, potential to occur onsite, and survey observations, is provided in Appendix B of the Biological Technical Report, Special-Status Plant Species Potential To Occur Table (Appendix 3.2A). This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur onsite.

A total of 42 special-status and rare plants were identified from the literature review. Of these, eleven (11) had moderate (9 species) or high (1 species) potential to occur or were known (1 species) to occur on the Study Area: *big tarplant* (Blepha*rizonia plumosa*), brittlescale (*Atriplex depressa*), Lemmon's jewelflower (*Caulanthus lemmonii*),

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), recurved larkspur (*Delphinium recurvatum*), spiny-sepaled button-celery (*Eryngium spinosepalum*), diamond-petaled California poppy (*Eschscholzia rhombipetala*), San Joaquin spearscale (*Extriplex joaquinana*), showy golden madia (*Madia radiata*), shining navarretia (*Navarretia nigelliformis* ssp. *radians*), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*).

Surveys conducted in May and August 2023, and April 2024 were timed to coincide with the bloom period of potentially occurring plant species. Of the 11 species with potential to occur, one was documented within the Study Area: big tarplant. The surveys were times appropriately to capture all potentially occurring species, including early blooming species such as diamond-petaled poppy and caper-fruited tropidocarpum. Although no reference populations of diamond-petaled poppy are accessible due to being on protected government land (Lawrence Livermore Lab property), past herbarium records and Calflora records document the species being evident and identifiable in the same elevation in the months of April and May (Calflora 2024; CCH 2024). Thus, if this species was present within the Study Area, it would have been observed.

Three individuals of big tarplant were observed in the Study Area, at the southwest corner of the PG&E Tesla substation. ~~No other special-status plants were observed during the surveys.~~ Big tarplant is an annual herb that endemic to California, with limited distribution throughout the state. This species has a CRPR rank of 1B.1 (rare, threatened or endangered in California and elsewhere), and is a covered species under the EACCS. This species prefers habitats in valley grassland vegetation communities, as well as in foothill woodlands and chaparral (Calflora 2023). Threats to this species include urbanization, disking, residential development, and encroachment by non-native plant species (CNPS 2024c).

~~Suitable valley~~Valley and foothill grassland with clay loam soils suitable for big tarplant are present within the Study Area. The nearest documented occurrence is approximately 0.25 miles east of the Study Area from 2003 (Occ. No. 15; CDFW 2023e). Only one plant was flowering, therefore allowing a qualified Dudek botanist (Laura Burris) to definitively key the plant to species based on descriptions, measurements, and photos taken in the field. All three individuals are located near the southwest corner of the PG&E Tesla substation in an area of sparse grassland that shows evidence of ephemeral drainage and/or swale patterns from the surrounding hills, including cracked soils, reduced grass cover and increased scrub species, and increased bare ground. Figure 3.2-6, Biological Survey Results, shows the location of the big tarplant within the Study Area.

### 3.2.1.8~~7~~.2 Special-Status Wildlife Species

A list of all special-status wildlife species known to occur in the vicinity of the Study Area (and surrounding nine quadrangles) and wildlife species covered under the East Alameda County Conservation Strategy, including their habitat requirements, potential to occur in the Study Area, and survey observations, are provided in Appendix 3.2A. A total of 54 special-status wildlife species were identified from the literature review. Special-status species with a low potential to occur (11 species) or species that are not expected to occur (32 species) are excluded from further discussion in this report, except for Swainson's hawk (*Buteo swainsoni*), which has a low potential for nesting within the Study Area but may forage in the Study Area and is discussed in more detail at the request of commenting agencies. Eleven (11) had moderate (7 species) or high (3 species) potential to occur or were known (1 species) to occur on the Study Area: Crotch's bumble bee (*Bombus crotchii*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), San Joaquin kit fox (*Vulpes macrotis mutica*), prairie falcon (*Falco mexicanus*), ferruginous hawk (*Falco mexicanus*), California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), American badger (*Taxidea taxus*), and California horned lark (*Eremophila alpestris actia*).

One special-status wildlife species weas observed during the surveys. The California horned lark is listed as a Watch List species by CDFW. Additionally, suitable breeding habitat was identified for California tiger salamander and California red-legged frog within dispersal distance of the Study Area, and Designated Critical Habitat for California red-legged frog overlaps with the Study Area. Nesting birds are also expected to utilize habitat present on the Study Area. The locations of these biological resources documented in the Study Area, are depicted in Figure 3.2.6. Full species descriptions are included in the Biological Technical Report (Appendix 3.2A).

### 3.2.1.87.3 Other Special-Status Bird Species

The Migratory Bird Treaty Act (MBTA; 16 USC 703 et seq.), as amended, prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. In December 2017, Department of the Interior Principal Deputy Solicitor Jorjani issued a memorandum (M-37050) that interprets the MBTA's "take" prohibition to apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs. Unintentional or accidental take is not prohibited. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

### 3.2.1.87.4 Golden Eagle

The golden eagle is a state fully protected species and a CDFW watchlist (WL) species. This species is also protected by the federal Bald and Golden Eagle Protection Act. Dudek biologists determined that the potential for this species to nest within the Study Area is low, but moderate potential for winter foraging.

The golden eagle is a year-round, diurnally active species that is a permanent resident and migrant throughout California. Golden eagles are more common in northeast California and the Coast Ranges than in Southern California and the deserts. Foraging habitat for this species includes open habitats with scrub, grasslands, desert communities, and agricultural areas.

Golden eagles breed from January through August, with peak breeding activity occurring from February through July. Nest building can occur almost any time during the year. This species nests on cliffs, rock outcrops, large trees, and artificial structures such as electrical transmission towers, generally near open habitats used for foraging (Katzner et al. 2020). Golden eagles commonly build, maintain, and variably use multiple alternative nest sites in their breeding territories, routinely refurbishing and reusing individual nests over many years. Generally, the nests are large platforms composed of sticks, twigs, and greenery that are often 10 feet across and 3 feet high (Zeiner et al. 1990a). Pairs may build more than one nest and attend to them prior to laying eggs (Katzner et al. 2020). Each pair can have up to 10 nests, but only 2 to 3 are generally used in rotation from one year to the next. Some pairs use the same nest each year, and others use alternate nests year after year, and still others apparently nest only every other year. Succeeding generations of eagles may even use the same nest (Katzner et al. 2020).

Transmission towers in and adjacent to the site provide low-quality nesting habitat. Grassland foraging habitat is present in the Study Area. Potentially suitable nesting habitat occurs west of the Study Area along the Altamont Pass. Birds that may forage near the site may attract eagles. The nearest documented occurrence is approximately 4.9 miles south of the Study Area from 2014, a record of a nest in a tower (Occ. No.323; CDFW 2024a).

### 3.2.1.87.5 California Red-Legged Frog

California red-legged frog is federally listed as threatened, a California Species of Special Concern, and is covered under the EACCS. This species occurs from sea level to elevations near 5,000 feet. It has been extirpated from 70% of its former range and now is found primarily in coastal drainages of Central California, from Marin County south to northern Baja California, and in isolated drainages in the Sierra Nevada, northern Coast, and northern Transverse Ranges. Breeding habitat includes freshwater pools and backwaters within streams and creeks, ponds, marshes, springs, and lagoons. They also frequently breed in artificial impoundments such as stock ponds (USFWS 2002). During the nonbreeding season, California red-legged frogs need moist areas in which to take refuge from the heat and predators, such as intermittent or ephemeral streams with dense riparian vegetation, overhanging banks, and rootwads; springs or spring boxes; rodent burrows; and damp leaf litter in riparian woodlands (Ford et al. 2013). USFWS (2002) considers freshwater habitat and associated upland habitat within 1 mile as red-legged frog breeding, foraging, and dispersal habitat. The breeding period for this species is July through September.

A protocol-level habitat assessment for CRLF was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the PSA to identify potential aquatic breeding sites within dispersal distance of the Study Area. Three aquatic features were assessed for habitat suitability for CRLF: Patterson Run, a seasonal stream paralleling Patterson Pass Road, and two stock ponds approximately 0.3 miles northwest (Pond 1) and west (Pond 2) of the Study Area. Of these aquatic features, only Pond 2 was determined to provide high-quality breeding habitat for CRLF, consisting of a large, deep stock pond with perennial water and a large quantity of emergent vegetation (bulrush [*Schoenoplectus* sp.] along with alkali bulrush [*Bolboschoenus maritimus*]) and surrounded by grazed grassland. Patterson Run lacked large pools suitable for breeding, and Pond 1 lacked suitable emergent or marginal vegetation. No CRLF were observed during the field surveys or habitat assessment. The nearest documented occurrences are approximately 1.5 miles east, south, and west of the Study Area (Occ. Nos. 822 from 2001, 1079 from 2008, 1759 from 2012, and 44 from 1993); there are numerous other records within 5 miles of the Study Area (CDFW 2024a). The habitat in the Study Area is highly suitable as overland migration and aestivation/refuge habitat for this species, consisting of abundant grassland with small mammal burrows to provide refuge.

### 3.2.1.87.6 California Tiger Salamander

The central California distinct population segment (DPS) of California tiger salamander is federally and state listed as threatened and is covered under the EACCS. This species has high potential to occur on the Study Area. CTS are found in annual grassland, valley-foothill hardwood, and valley-foothill riparian habitats and breeds in vernal pools, ephemeral pools, stock ponds, and (infrequently) along streams and human-made water bodies if predatory fishes are absent.

A protocol-level habitat assessment for CTS was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of, the Study Area to identify potential aquatic breeding sites within dispersal/upland refuge distance of the Study Area. Three aquatic features were assessed for habitat suitability for CTS: Patterson Run, a seasonal stream paralleling Patterson Pass Road, and two stock ponds approximately 0.3 miles northwest (Pond 1) and west (Pond 2) of the Study Area. Of these aquatic features, ponds 1 and 2 were determined to provide high-quality breeding habitat for CTS, consisting of a large, deep stock pond with perennial water and a large quantity of emergent vegetation (bulrush [*Schoenoplectus* sp.] along with alkali bulrush [*Bolboschoenus maritimus*]) and surrounded by grazed grassland. Patterson Run lacked large pools suitable for breeding, The habitat in the Study Area is suitable as overland migration and aestivation/refuge habitat for this species, consisting of abundant grassland with small mammal burrows to provide refuge. Two nearby stock ponds

provide suitable aquatic breeding habitat approximately 0.3 miles from the Study Area. The nearest documented occurrence is approximately 1.6 miles southwest of the Study Area from 2012 (Occ. No. 1003), but there are numerous other records within 5 miles of the Study Area (CDFW 2024a). No California tiger salamanders were observed during the field surveys, but this species is extremely difficult to detect without focused surveys in accordance with USFWS and CDFW-sanctioned protocols (USFWS and CDFG 2003).

### 3.2.1.87.7 San Joaquin Kit Fox

San Joaquin kit fox is a federal and state threatened species endemic to California and is a covered species under the EACCS. This species occurs only on the San Joaquin Valley floor, surrounding foothills and ranges, and smaller, adjacent valleys, from northern Ventura and Santa Barbara Counties north to Contra Costa and San Joaquin counties. The Study Area is in the northern range of this species, in the S1 (Alameda, Contra Costa, and San Joaquin Counties) San Joaquin kit fox satellite population recovery area (USFWS 2010), where there have been no confirmed observations since 2002 (USFWS 2020). Extensive surveys using scent dogs between 2001 and 2003 did not detect any San Joaquin kit foxes in surveyed portions of Alameda County (Smith et al. 2006).

San Joaquin kit fox occurs in arid lands with scattered shrubby vegetation underlain by loose-textured, sandy soils suitable for burrowing and supporting primary prey (e.g., kangaroo rats [*Dipodomys* sp.]). Occupied communities and land covers include valley sink scrub, valley saltbush scrub, upper Sonoran subshrub scrub, annual grassland, grazed grasslands, petroleum fields, and urban areas in the southern portion of their range; valley sink scrub, interior coast range saltbush scrub, upper Sonoran subshrub scrub, annual grassland, and the remaining native grasslands in the central portion of their range; and annual grassland and valley oak woodland in the northern part of their range (USFWS 1998).

The nearest documented occurrence is approximately 0.3 mile southwest of the Study Area, a historical record from 1984 (Occ. No. 6; CDFW 2024a). Multiple other historical records are within 5 miles of the Study Area, all prior to 1992 (CDFW 2024a). Suitable open grassland is present with evidence of friable soils and burrowing activity near Patterson Pass Road. Although there is moderate-quality grassland present in the Study Area, none of the burrows onsite are suitable for this species (see burrow survey results, below), and it is highly unlikely this species utilizes the Study Area for denning habitat.

Focused burrow surveys were conducted on May 16 and August 2, 2023, and January 18, 2024, and additional burrow assessment was conducted during protocol-level burrowing owl surveys on April 12, May 3, May 24, and June 17, 2024, to identify a variety of animal burrows within the Study Area, including for San Joaquin kit fox. Several large burrow tailings were observed on the eastern side of the Study Area along Patterson Pass Road, were investigated for sign of San Joaquin kit fox occupancy, including prey remains, scat, tracks, and claw/scratch marks. The burrows onsite were not greater than 4 inches in diameter and are associated with active ground squirrel colonies and are not suitable denning structures for San Joaquin kit fox. No San Joaquin kit fox or their sign were observed during the field surveys.

### 3.2.1.87.8 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is a California Fully Protected species. It inhabits herbaceous and open cismontane habitats (Zeiner et al. 1990a). It is commonly associated with certain types of agricultural areas (Grinnell and Miller 1944). This species is a year-round resident in coastal and valley lowlands, and forages in open grasslands, meadows, farmlands, and emergent wetlands. It will also use marginal habitats such as freeway edges and medians when foraging for voles and mice. Nests are constructed in a variety of trees, with coast live oak

perhaps the most common, and placed high in the crown on thin branches (Peeters and Peeters 2005). Riparian areas adjacent to open space areas are also typically used for nesting, and kites prefer dense, broad-leafed deciduous trees for nesting and night roosting (Brown and Amadon 1968). They also nest in young redwoods (*Sequoia sempervirens*) and mid-sized Douglas firs (*Pseudotsuga menziesii*) in Northern California.

There is moderate-quality grassland habitat present in the Study Area for foraging, with a few scattered cottonwood trees (*Populus* sp.) suitable for nesting. No white-tailed kites were observed during the field surveys. The nearest documented occurrence is approximately 3.7 miles south of the Study Area, a historical record from 1996 (Occ. No.152; CDFW 2024a).

### 3.2.1.87.9 Western Burrowing Owl

Burrowing owl is a candidate for listing as a protected species under the CESA ~~California species of special concern~~ that occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama. In California, it is a year-round resident of lowlands throughout much of the state; these resident populations may be augmented by migrants from other parts of western North America in the winter (Gervais et al. 2008). Burrowing owls require habitat with three basic attributes: open, well-drained terrain; short, sparse vegetation; and underground burrows or burrow surrogates such as culverts, concrete debris piles, or riprap (Klute et al. 2003). They occupy grasslands, deserts, sagebrush scrub, agricultural areas (including pastures and untilled margins of cropland), earthen levees and berms, coastal uplands, and urban vacant lots, as well as the margins of airports, golf courses, and roads. This species also prefers sandy soils with higher bulk density and less silt, clay, and gravel (Lenihan 2007).

Focused burrow surveys were conducted on May 16 and August 2, 2023, and January 18, 2024, and ~~conducted in 2023~~ determined there is grassland habitat, but it is currently of moderate suitability for burrowing owls because it lacks extensive ground squirrel burrows, and the vegetation is generally tall and dense (burrowing owls prefer areas with short, sparse vegetation). Burrows present on the site were generally small and not suitable for burrowing owls. Higher-quality habitat with low, grazed vegetation and ground squirrel colonies were observed throughout the surrounding landscape. No burrowing owls were observed during the field surveys. There are 3 documented occurrences adjacent or overlapping with the Study Area, from 1982, 2002, and 2006 (Occ. Nos. 48, 468, and 1229). Multiple other documented occurrences are within 5 miles of the Study Area, most recently from 2015 (Occ. No. 47; CDFW 2024a).

Protocol-level burrowing owl breeding surveys were conducted on April 12, May 3, May 24, and June 17, 2024. Results of the focused burrow survey were used to identify areas of potential breeding habitat (burrows) and to assess whether burrowing owl were utilizing breeding habitat within the Study Area. No burrowing owls or their sign were observed during the field surveys. This species is not present within the Study Area.

### 3.2.1.87.10American Badger

American badger is a California species of special concern that occurs throughout California except for the extreme northwestern coastal area (Zeiner et al. 1990b) and higher elevations of the Sierra Nevada. This species prefers dry, open, treeless areas, grasslands, coastal scrub, agriculture, and pastures, especially with friable soils (Zeiner et al. 1990b). This species is considered somewhat tolerant of human activities (Zeiner et al. 1990b).

The Study Area includes suitable dry open grassland present with evidence of friable soils and burrowing activity near Patterson Pass Road. The nearest documented occurrences are approximately 0.2 miles north (Occ. No. 520

from 2014) and south (Occ. No. 250, unknown date prior to 2004; CDFW 202e). Multiple other records are within 5 miles of the Study Area, the most recent from 2015 (CDFW 2024a).

Focused burrow surveys were conducted on May 16 and August 2, 2023, and January 18, 2024, and additional burrow assessment was conducted during protocol-level burrowing owl surveys on April 12, May 3, May 24, and June 17, 2024, to identify a variety of animal burrows within the Study Area boundaries, including for American badger. Several large burrow tailings were observed on the eastern side of the Study Area along Patterson Pass Road, evidence of highly suitable soils for burrowing and hunting. Burrows were investigated for sign of American badger occupancy, including prey remains, scat, tracks, and claw/scratch marks. The burrows were not greater than 4 inches in diameter and are associated with active ground squirrel colonies and are not suitable denning structures for American badgers. No American badgers or their sign were observed during the field surveys.

## 3.2.1.8.11 Crotch's Bumble Bee

Crotch's bumble bee is a state candidate for listing as endangered under CESA and is not covered under the EACCS. The species has low moderate potential to occur within the Study Area. The CBB occurs almost exclusively in California, currently primarily in the Central Valley, but has been described as having historically occupied grasslands and shrublands in southern to central California. Bumble bees are known to be generalist pollinators but have preferences based on flower color including purple, blue, and yellow. Specifically, this species is found in grasslands with food plant genera that include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum*, among others (USFS 2012).

There are no CNDDB records within 5 miles of the PSA (CDFW 2024). One occurrence is documented within a nine-quad search (Occurrence number 19). This occurrence of was documented in 1959 and the exact location of this occurrence was unknown and recorded to CNDDB to demonstrate the general vicinity (CDFW, 2024).

Focused Crotch's bumble bee habitat assessments were conducted on May 16 and August 2, 2023, and January 18, 2024. Scattered floral resources were observed including lupines (*Lupinus spp.*), Mexican whorled milkweed (*Asclepias fascicularis*), and exserted Indian paintbrush (*Castilleja exserta*), along with potential nesting substrates such as bare cracked soil, small rocky areas, and small rodent burrows. Both Lupinus sp. and Asclepias sp. are example food plants utilized by this species (Williams et al. 2014). No bumble bee species were seen during the field surveys, however, presence is assumed due to suitable foraging floral resource presence.

## 3.2.1.8.12 Swainson's Hawk

Swainson's hawk is a California state threatened species that is not covered under the EACCS with a low potential for nesting and foraging within the Study Area. Swainson's hawks are primarily a grassland bird, but they are also found in sparse shrubland and small, open woodlands (Bechard et al. 2010). In Central California, Swainson's hawks are primarily associated with grain and hay croplands that mimic native grasslands with respect to prey density and availability (Esetep 1989, Babcock 1995). Within a USGS nine quad search, a total of 85 occurrences of Swainson's hawk have been reported. Within a 10-mile radius of the Study Area, a total of 59 occurrences of Swainson's hawk have been reported (CDFW 2024). Most of the documented observations are north and east of the PSA, primarily east of the Diablo Range (CDFW 2024). Four occurrences of this species are documented within 5 miles, but none are closer than 3.8 miles to the Study Area. The occurrence located approximately 3.8 miles northeast of the Study Area is a historic record documented in 1994 (CDFW 2024).

Although the Study Area presents grassland foraging habitat for this species, suitable nesting habitat within 0.5 mile of the Study Area is limited and includes trees associated with homes and development. Trees onsite are short in stature and do not provide high quality nesting substrates for raptors. No Swainson's hawks or raptor stick nests were observed during field surveys.

### 3.2.1.98 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats), and provide non-migrant wildlife the opportunity to move within their home range for food, cover, reproduction, and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

The Study Area does not overlap with any California Essential Habitat Connectivity Areas (CDFW 2014). but is considered part of the large contiguous Natural Landscape Block that extends from Alameda County south through the Diablo Range and Southern Coastal Ranges, terminating north of the Transverse Ranges (CDFW 2017). Given that the existing vegetation is surrounded on three sides by similar annual grassland habitat and is close to the existing PG&E Tesla substation, the Study Area likely provides movement habitat for local wildlife but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area as movement habitat, regional connectivity is highly limited by Patterson Pass Road, an unnamed gravel road directly to the north of the Study Area, Interstates (I) 580 and I-5 to the north and east, respectively, and the railroad south of the PSA. Thus, the Project would not impose significant barrier to wildlife movement.

## 3.2.2 Regulatory Setting

Federal, state, and local laws, ordinances, regulations, and standards (LORS) related to biological resources were reviewed for applicability to the Project. These are detailed in Section 3.4.6, Laws, Ordinances, Regulations, and Standards.

## 3.2.3 Environmental Analysis

Potential direct and indirect impacts to biological resources were evaluated to determine the permanent and temporary effects of construction and operation of the proposed Project. Results from the field surveys, habitat evaluations and literature review were evaluated to address the potential for presence of sensitive biological resources within the Study Area were presented in the prior section.

Section 3.2.2, contained herein, identifies the biological resources that may be affected directly or indirectly and may have temporary or permanent impacts. These impact categories are defined as follows:

Direct. The California Environmental Quality Act (CEQA) defines direct impacts as those that result from the project and occur at the same time and place. Project related activities, such as alteration, disturbance or destruction of biological resources are considered a direct impact. Direct impacts for this Project are those associated with the grading and development of the BESS facility site.

**Indirect.** CEQA defines indirect impacts are impacts that are caused by the project but do not occur at the same time but rather at different but a reasonably foreseeable future time. Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

**Permanent.** All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

**Temporary**. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

### 3.2.3.1 Significance Criteria

Factors typically used to evaluate the significance of project-related impacts are set forth in Appendix G CEQA. Appendix G is a screening tool, not a method for setting thresholds of significance. Appendix G is typically used in the Initial Study phase of the CEQA process, asking a series of questions. The purpose of these questions is to determine whether a project requires an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration.

As the Governor's Office of Planning and Research stated, "Appendix G of the Guidelines lists a variety of potentially significant effects but does not provide a means of judging whether they are indeed significant in a given set of circumstances." The answers to the Appendix G questions are not determinative of whether an impact is significant or less than significant. Nevertheless, the questions presented in CEQA Appendix G are instructive. Significant biological impacts resulting from the GESC Project were assessed by the following criteria:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on federal or state protected WOTUS [waters of the United States] (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, NCCP [natural community conservation plan], or other approved local, regional, or state habitat conservation plan.
- Threaten to eliminate a plant or animal community.

CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if the species is not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

### 3.2.3.2 Impact Evaluation

Impact 3.2-1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by CDFW or USFWS?

#### Special-status Plants

One special-status plant, the big tarplant, was observed during the 2023 focused botanical surveys.

Permanent and temporary impacts to three individuals of big tarplant could occur from construction of the proposed Project through direct harm and/or habitat loss. Impacts could include the destruction of individual plants identified or new plants that may become established prior to ground disturbance. This is a **potentially significant impact**.

To reduce potential impacts to less than significant, **MM-BIO-1** will be implemented, including identification and flagging of the extant population for complete avoidance during construction of the gen-tie line, and supplemental measures if complete avoidance is not feasible.

#### Special-status Wildlife

Permanent and temporary direct impacts to special-status wildlife could occur from construction of the proposed Project through direct harm or habitat loss (see Figure 3.2-8). Indirect impacts to sensitive wildlife could include construction-related dust, soil erosion, and water runoff decreasing or permanently altering habitat suitability. Special-status wildlife species that could occur within the Study Area and be impacted directly or indirectly by project implementation include: Crotch's bumble bee (*Bombus crotchii*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), San Joaquin kit fox (*Vulpes macrotis mutica*), prairie falcon (*Falco mexicanus*), ferruginous hawk (*Falco mexicanus*), California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), American badger (*Taxidea taxus*), and California horned lark (*Eremophila alpestris actia*).

**Crotch's bumble bee.** Focused Crotch's bumble bee habitat assessments determined that suitable foraging floral resources are present within the Study Area and that while no bumble bee species were seen during the field surveys, their presence is assumed. Direct impacts to suitable habitat for this species consists of the permanent removal of approximately 57 acres of non-native grassland habitat, which provides foraging habitat where floral resources are present. Indirect impacts from construction-related dust, soil erosion, and water runoff decreasing or permanently altering habitat suitability, or operational impacts such as lighting or landscape irrigation are not expected to impact potentially suitable habitat for this species or the use of surrounding land by this species. The loss of 57 acre of potentially suitable non-native grassland habitat is considered a **potentially significant impact**.

**Golden Eagle.** The Study Area provides grassland foraging habitat, and transmission towers in and adjacent to the site provide low-quality nesting habitat. In addition, potentially suitable nesting habitat occurs west of the Study Area along the Altamont Pass and birds that may forage near the site may attract eagles. Potential direct impacts to golden eagles may occur during Project construction if construction activities commence during the avian breading season of February through August through direct take or nest failure should they be nesting within 1 mile of the Project area. Direct impacts to suitable habitat for golden eagles consist of the permanent removal of approximately 57 acres of non-native grassland habitat, which provides foraging habitat for this species. These impacts are considered **potentially significant**.

The new facility will include multiple structures that range in height from 7 to 185 feet tall. The tallest structure is the poles associated with the generator tie facilities at 185 feet above ground level. Factors that affect the risk of collision include weather conditions, behavior of the species of bird, and design and location of the line or tower. Most collisions involve nocturnal migrants flying at night in inclement weather and low-visibility conditions. Collisions typically occur when migrating birds collide with tall, guyed television or radio transmission towers (APLIC 2016). Migratory birds generally fly at an altitude that would avoid ground structures, except when crossing over topographic features or when inclement weather forces the birds closer to the ground. Based on the Project's design and location, operations are likely to result in less-than-significant impacts from potential collisions.

The Project also includes electric conducting wires; electrocutions could occur when a bird simultaneously contacts two conductors of different phases or contacts a conductor and a ground. This happens most frequently when a bird attempts to perch on a structure with insufficient clearance between these components. On a 138-kW transmission line, all clearances between conductors or between conductors and ground are sufficient to protect even the largest birds if recommended horizontal and vertical spacing (55 – 76 inches) are used for conductor separation according to the Avian Power Line Interaction Committee (APLIC 2006). As such, operation of the Project would not result in adverse impacts to wildlife from electrocution.

**Burrowing Owl.** Annual grassland habitat within the project site provides potential nesting and foraging habitat for burrowing owl although protocol surveys within the Study Area determined that burrowing owl is not present. Focused burrow surveys determined that grassland habitat available in the Study Area is currently of moderate suitability for burrowing owls because it lacks extensive ground squirrel burrows, and the vegetation is generally tall and dense (burrowing owls prefer areas with short, sparse vegetation). Direct impacts could include mortality or injury to owls or destruction of burrows/nests if nesting in or adjacent to a construction site prior to ground-disturbing activities. In addition, loud construction activities could cause an adult owl to abandon an active nest that is in close proximity to construction, which could lead to nest failure. This impact would be **potentially significant**.

**Swainson's Hawk.** The Study Area presents grassland foraging habitat for this species, although suitable nesting habitat within 0.5 mile of the Study Area is limited to trees associated with homes and development. Trees onsite are short in stature and do not provide high quality nesting substrates for raptors and no Swainson's hawks or raptor stick nests were observed during field surveys. Direct impacts could include mortality or injury to Swainson's hawks or destruction of nests if nesting in or adjacent to a construction site prior to ground-disturbing activities. In addition, loud construction activities could cause an adult hawk to abandon an active nest that is near construction, which could lead to nest failure. This impact would be **potentially significant**.

**Other Nesting and Migratory Birds and Birds of Prey (including northern harrier, white-tailed kite, prairie falcon, ferruginous hawk, and California horned lark).** Like other undeveloped/natural sites, the Study Area contains opportunities for birds of prey (raptors) and other avian species to nest. Native nesting bird species with potential to occur within the Project Boundary are protected by California Fish and Game Code Sections 3503 and 3503.5, and by the federal MBTA (16 USC 703–711). Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Recently, the Department of Interior ruled that the MBTA should apply only to "affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs," and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities. However, that ruling is now under review as a revision to the MBTA that would include prohibitions to incidental take.

Direct impacts to suitable habitat for these species consist of the permanent removal of approximately 57 acres of non-native grassland habitat, which provides nesting, foraging, migration, and refuge habitat to many of these species. Vegetation clearing of suitable habitat within the general avian breeding season of February through August may result in direct take avian species or an active nest. Construction activities conducted during the breeding season would be **potentially significant**.

As described above for golden eagle, the Project also includes new towers and transmission lines that could result in avian collisions or electrocution. However, based on the Project's design and location, operations are likely to result in less-than-significant impacts from potential collisions and electrocutions.

**San Joaquin Kit Fox and America Badger.** No San Joaquin kit fox or American badger or their sign were observed during field surveys or burrow surveys in the Study Area. The Study Area includes suitable dry open grassland present with evidence of friable soils and burrowing activity near Patterson Pass Road. The burrows onsite were not greater than 4 inches in diameter and are associated with active ground squirrel colonies and are not suitable denning structures for either San Joaquin kit fox or American badger. Direct impacts to suitable habitat for these species consist of the permanent removal of approximately 57 acres of non-native grassland habitat, which provides potential habitat for these species. Construction activities could temporarily displace these species if present or could become trapped in uncovered trenches if left open overnight or if the contractor does not provide suitable egress. These impacts would be **potentially significant**.

**California Red-Legged Frog.** The Project area provides highly suitable habitat for overland migration and aestivation/refuge habitat for this species, consisting of abundant grassland with small mammal burrows to provide refuge, and the entirety of the Project site is in designated CRLF Critical Habitat. No CRLF were observed during the field surveys or habitat assessment. Based on this habitat assessment, usage of the site as upland refuge and dispersal for CRLF is assumed. Construction of the Project would permanently remove approximately 38 acres of suitable upland dispersal and refuge habitat for CRLF. This would be a **significant** impact.

**California Tiger Salamander.** The Project area provides highly suitable habitat for overland migration and aestivation/refuge habitat for this species, consisting of abundant grassland with small mammal burrows to provide refuge. No CTS were observed during the field surveys or habitat assessment. Based on this habitat assessment, usage of the site as upland refuge and dispersal for CTS is assumed. Construction of the Project would permanently remove approximately 38 acres of suitable upland dispersal and refuge habitat for CTS. This would be a **significant** impact.

## Indirect Impacts

**Construction:** During construction activities, indirect impacts to sensitive wildlife could include construction-related dust, soil erosion, and water runoff decreasing or permanently altering habitat suitability. Without construction-related minimization measures to control dust, erosion, and runoff, and without compliance with National Pollutant Discharge Elimination System (NPDES) requirements, indirect impacts to riparian resources and upland communities could occur. However, standard construction BMPs to control dust, erosion, and runoff, including straw bales and silt fencing, would be implemented to minimize these adverse effects. If these indirect impacts decrease the quantity or quality of potentially suitable wildlife habitat for special-status species, this could be a **potentially significant** impact. ~~Additionally, implementation of MM-BIO-2 through MM-BIO-11 to reduce direct impacts to special-status wildlife species would also contribute to the reduction of indirect impacts to less than significant with mitigation.~~

**Operation:** Following construction, the proposed use would not create emissions to air, and would not require water. Operational water will be limited to water necessary for landscape irrigation and to supply on-site fire hydrants. The BESS and all associated equipment will be remotely monitored and controlled. Qualified technicians would visit the site approximately 1-2 times per month to conduct routine inspections and maintenance as well as semi-annual and annual services. Periodically, batteries and various components may be replaced or renewed to ensure optimal performance.

The Project site contains undeveloped grassland with a railroad to the south, and major freeways to the north and east. Operations of the BESS Facility will produce some additional noise in the area, as described in Section 3.7, Noise. As previously noted, each power block associated with the Project would contain ancillary equipment. Such equipment is not known to cause off-site ground vibration nor airborne low-frequency noise during normal operations.

Sources of light in the Study Area and vicinity come from rural residents, the PG&E Tesla Substation, and red safety lights related to wind turbines visible along the horizon to the west. No street lighting exists along nearby highways or local roadways; however, intermittent/temporary lighting from cars and trucks are present along nearby highways (i.e., I-580 and I-205) and local roadways, including Patterson Pass Road. The Project would introduce new light sources into the existing nighttime environment such as facility lighting for safety and security purposes.

Permanent, operational lighting would only be in areas where it is required for safety, security, or operations. Low-elevation (i.e., less than 14 feet) controlled security lighting would be installed at the Project substation and around the BESS yard, in accordance with applicable governmental requirements listed in Section 3.13.6.2, State, including requirements set forth in the California Building Code (Title 24, Part 1), California Electrical Code (Title 24, Part 3), and California Energy Code (Title 24 Part 6). Permanent motion-sensitive, directional security lights would be installed to provide adequate illumination around the substation area and points of ingress/egress. Portable lighting may be used occasionally and temporarily for maintenance activities during operations, such as emergency work that must occur at night. Care would be taken to prevent undue light pollution from the nighttime security lighting. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto nearby properties, compliant with applicable codes and regulations.

The Project does not propose installing any new structure lighting as part of the proposed gen-tie line, except for aviation lighting and /or marking that may be required for some structures. Upon completion of final design, if necessary, the Applicant would file with the Federal Aviation Administration (FAA) for official study and determination of lighting and/or marking requirements for these structures. Aviation lights are manufactured with focused beacons that direct light upward and outward without illuminating nearby areas directly below the lights, and no visible reflected light would be visible from the ground surface. Any aviation lighting required for the Project would be consistent with similar, existing aviation lighting in the vicinity.

Use of emergency backup generators onsite would introduce a new source of nitrogen deposition. The modeling showed that the highest nitrogen loading from operation of the project will be located just outside the southern boundary as shown in Figure 3.2-9 and Appendix 3.2G. The maximum nitrogen loading directly adjacent to the source is 2.75 kg/ha/yr. The nitrogen load reduces significantly with distance from the source, and is less than 1 kg/ha/yr at the closest freshwater pond approximately 0.4 mile west of the Project site.

As previously discussed, the area consists of grassland and the nitrogen loading from the Project is below the critical load for that species (Table 3.2-4). Similarly, the nitrogen loading beyond this maximum point of impact is well below any critical loads for other biological resources surveyed, including the California red-legged frog, California tiger

salamander, crotch's bumble bee, big tarplant, birds, and aquatic resources found (Patterson Run). Although critical nitrogen loads for all biological resources have not been firmly established, a value of 5 kg/ha/yr is typically used to analyze nitrogen deposition to these resources (Weiss 2006). While there may be other biological species within 6 miles of the project site that are not listed here, the annual nitrogen deposition is well below the maximum impact area indicated above and would not be above other species' critical nitrogen loads.

## Table 3.2-4. Critical Nitrogen Loads for Biological Resources within 6 miles of the Project Site

| Biological Resource | Critical Nitrogen Loads (kg/ha/yr) |
|---|---|
| California grasslands | 5-10 |
| Freshwater wetlands | 2.7-13 |
| Riparian forest | 10-20 |

**Source:** Pardo et al 2011.
**Notes:** kg/ha/yr = kilogram per hectare per year.

The maximum Project impacts of nitrogen deposition rates for all resources would be XX kg/ha/yr immediately adjacent to the sources within the boundaries of the Project site. The resources nearest the sources consist solely of non-native California grassland. The quantity of nitrogen deposition from the Project emissions on vegetation would, in practice, be less than the model results because the assumptions modeled are inherently conservative (e.g., assuming the emergency backup generators are running at the same time). The nitrogen deposition would also be distributed incrementally throughout a year and not all nitrogen added to the soil during each deposition event would be available for plant use because of losses associated with soil processes. As a result, operation of the Project's emergency backup generators would not lead to nitrogen deposition levels that exceed critical thresholds associated with significant impacts to natural vegetation communities and special status species in the vicinity of the Project site. Therefore, operation of the Project's emergency backup generators would result in **less than significant** impacts to natural vegetation communities and special status species within 6 miles of equipment operation.

~~Due to the proposed use of light grey steel finishes, Project site components may have the potential to induce glare, which could result in a safety concern or nuisance to travelers and residents. As such, implementation MM-VIS-1 is required. As set forth in Section 3.13.5, Mitigation Measures, below, MM-VIS-1 requires the Applicant to prepare and implement a Surface Treatment Plan for new aboveground structural elements associated with the Project substation, BESS and PCS enclosures, and gen-tie line. The Surface Treatment Plan would require that the finishes on all new transmission and other structures with metal surfaces will be non-reflective/non-specular. The Surface Treatment Plan would also address any non-steel structural elements associated with Project components. Color finishes would be selected according to their ability to reduce the aesthetic impact associated with contrast with the surrounding landscape.~~

For the reasons discussed above, the Project operations would not create a new source of substantial light or glare that would adversely affect the use of surrounding land by wildlife. Impacts would be **less than significant.**

**Decommissioning:** The Project's BESS facility is anticipated to have an approximately 25-year lifespan. At the end of the facility's useful life, the Project would undergo decommissioning in accordance with an approved Decommissioning Plan. As part of the decommissioning activities, all site improvements that are no longer in use and cannot be repurposed will be removed from the Project site and the lands and associated easement areas

would be restored to a substantially similar condition in which they existed. Since the site would be restored to a condition similar to pre-Project activities, impacts related to ~~light and glare~~wildlife would be less than significant and no mitigation would be required for decommissioning activities.

### 3.2.3.3 Mitigation Measures

Complete details of proposed mitigation measures are provided in Section 3.2.5. Compliance with mitigation measure BIO-1 would ensure impacts to special-status plant species would be reduced to a less-than-significant level through complete avoidance of the big tarplant population.

Compliance with mitigation measure BIO-2 would provide general avoidance and minimization measures to reduce potential adverse effects to all special-status wildlife during construction of the Project including proper delineation of work sites and worker environmental training. Implementation of BIO-2 would reduce potential general construction impacts to a less-than-significant level.

Implementation of mitigation measures BIO-3 and BIO-4 would reduce potential adverse effects to CRLF and CTS that utilize the site as upland refuge and overland migration habitat during construction of the Project, and provide for compensatory mitigation for the permanent removal of approximately 57 acres of upland critical habitat for CRLF, and upland and dispersal habitat for CTS, through the purchase of in-kind habitat credits at a USFWS- and CDFW-approved mitigation bank or turnkey mitigation property.

Implementation of BIO-5 which involves preconstruction surveys for nesting birds (during the nesting season February through August), would avoid and/or minimize potential impacts to these species reducing potential impacts to less than significant.

Implementation of BIO-6 which includes avoidance and minimization measures to avoid or minimize potential adverse effects to golden eagle that may utilize the project site for hunting and foraging, would avoid and/or minimize potential impacts to golden eagle reducing potential impacts to less than significant.

Implementation of BIO-7 which includes pre-construction surveys for nesting Swainson's hawk within 0.5 mile of the Study Area where accessible, and avoidance of hawks durign nesting season, would avoid and/or minimize potential impacts to Swainson's hawk reducing potential impacts to less than significant.

Implementation of mitigation measure BIO-8 would reduce impacts to burrowing owl by requiring pre-construction nesting bird surveys and avoidance of occupied burrowing owl nest locations. Implementation of mitigation measure BIO-9 provides for compensatory mitigation for similar habitat to the approximately 57 acres of foraging and potential breeding and overwintering habitat that would be removed. This habitat will be preserved through the purchase of in-kind habitat credits at a CDFW-approved mitigation bank. Taken together, implementation of these mitigation measures would reduce potential impacts to less than significant.

Implementation of BIO-10, which involves avoidance of San Joaquin Kit Fox dens, exclusions, avoidance measures for trenches and pipes, would reduce potential impacts to San Joaquin Kit Fox and American badger, to less than significant.

Implementation of BIO-11 would reduce impacts to Crotch's bumble bee through pre-construction surveys and avoidance buffers and would reduce impacts to a less than significant level.

Protocol-level habitat assessment for CRLF and CTS determined that there is suitable grassland habitat with small mammal burrows present on the Study Area and aquatic breeding habitat available within dispersal distance. Additionally, the entirety of the Project site is in CRLF Critical Habitat. Focused burrow surveys did not identify suitable burrow habitat for San Joaquin kit fox or American badger; however, both species could utilize the Study Area for overland migration and prey resources. Protocol-level surveys for burrowing owl did not identify any active breeding within the Study Area, though ground squirrel burrows within the Study Area provide suitable burrow habitat. Focused surveys for the remaining special-status species were not conducted because there are no accepted protocols for surveys. The remaining special status species with at least moderate potential to occur are non-burrow dwelling bird species that could utilize the Project site for ground nesting, foraging, and a migration corridor. Therefore, direct impacts through direct mortality or modification of habitat could occur to CRLF, CTS, American badger, burrowing owl, golden eagle, other raptors, and nesting birds, which would be considered significant.

Direct impacts to suitable habitat for these species consist of the permanent removal of approximately 57 acres of non-native grassland habitat, which provides nesting, foraging, migration, and refuge habitat to many of these species. Vegetation clearing of suitable habitat within the general avian breeding season of February through August may result in direct take of this species or an active nest, which would be considered significant. Project implementation of MM-BIO-2 through MM-BIO-11 would reduce potential impacts to less than significant.

A Protocol-Level CRLF and CTS Habitat Assessment was conducted in 2023 to determine potential habitat in the Study Area. Surveys determined that there is suitable grassland habitat with small mammal burrows present on the Study Area with aquatic breeding habitat available within dispersal distance. Based on this habitat assessment, usage of the site as upland refuge and dispersal for CRLF and CTS is assumed. Construction of the Project would permanently remove approximately 38 acres of suitable upland dispersal and refuge habitat for CRLF and CTS. Compensatory mitigation described in MM-BIO-5 would reduce these impacts to less than significant with mitigation.

### Nesting Birds and Raptors

Like other undeveloped/natural sites, the Study Area contains opportunities for birds of prey (raptors) and other avian species to nest. Native nesting bird species with potential to occur within the Project Boundary are protected by California Fish and Game Code Sections 3503 and 3503.5, and by the federal MBTA (16 USC 703–711). Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Recently, the Department of Interior ruled that the MBTA should apply only to "affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs," and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities. However, that ruling is now under review as a revision to the MBTA that would include prohibitions to incidental take.

Potential direct impacts to nesting birds may occur during Project construction if construction activities commence during the avian breading season of February through August through direct take or nest failure, which would be considered significant. To avoid potential Project-related impacts to nesting birds, implementation of MM-BIO-2 would reduce potential impacts to less than significant with mitigation.

~~Construction activities could temporarily displace birds, small mammals, reptiles, and amphibians that burrow or nest within the Study Area. Specific construction activities that could cause adverse impacts to these species and other special-status wildlife with a potential to occur onsite include:~~

~~Removal of vegetation on the construction laydown area~~

~~Ground-dwelling animals could become trapped in uncovered trenches if left open overnight or if the contractor does not provide suitable egress for special-status wildlife species~~

~~Impacts on nesting birds could occur if construction activities take place adjacent to natural habitat during the avian nesting season.~~

~~Temporary adverse impacts could be associated with increased noise from construction or incidental incursions into nesting habitat~~

~~CDFW has defined nesting bird season as February 1 – August 15.~~

~~The new facility will include multiple structures that range in height from 7 to 185 feet tall. The tallest structure is the poles associated with the generator tie facilities at 185 feet above ground level. Most collisions involve nocturnal migrants flying at night in inclement weather and low-visibility conditions. Collisions typically occur when migrating birds collide with tall, guyed television or radio transmission towers (APLIC 2016). Migratory birds generally fly at an altitude that would avoid ground structures, except when crossing over topographic features or when inclement weather forces the birds closer to the ground. Based on the Project's design and location, operations are likely to result in less-than-significant impacts from potential collisions.~~

~~Bird collisions with electric conducting wires occur when birds are unable to see the lines, especially during fog or rain events. Factors that affect the risk of collision include weather conditions, behavior of the species of bird, and design and location of the line.~~

~~Electrocutions occur when a bird simultaneously contacts two conductors of different phases or contacts a conductor and a ground. This happens most frequently when a bird attempts to perch on a structure with insufficient clearance between these components. On a 138-kW transmission line, all clearances between conductors or between conductors and ground are sufficient to protect even the largest birds if recommended horizontal and vertical spacing (55 – 76 inches) are used for conductor separation according to the Avian Power Line Interaction Committee (APLIC 2006). As such, operation of the Project would not result in adverse impacts to wildlife from electrocution.~~

~~Combined with the presence of existing high voltage lines on three sides of the Study Area and implementation of avoidance and minimization measures, the construction of the additional gen-tie line will not constitute a significant addition to overhead lines in the area. Impacts as a result of installation of the gen-tie line to migratory birds and raptors will be less than significant with mitigation. Mitigation measures for special-status wildlife are discussed in further detail in Section 3.2.5.~~

Impact 3.2-2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.?

As currently designed, the proposed Project would result in 44.44 acres (5.86 acres temporary and 38.58 acres permanent) of direct impacts to non-native vegetation communities and land covers through the removal of vegetation and grading of land to construct the proposed battery energy storage system facilities. Project-related impacts to non-native vegetation communities and land covers are not considered significant because they are not considered sensitive natural communities by CDFW.

There are no sensitive natural communities mapped within the Project footprint and thus, there would be **no impact** to sensitive natural communities.

Impact 3.2-3 Would the project have a substantial adverse effect on federal or state protected WOTUS (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means?

The results of the 2024 jurisdictional delineation identified Patterson Run, a seasonal drainage, as potentially jurisdictional under Sections 404 and 401 of the CWA and 1600 of the CFGC, due to the presence of an Ordinary High-Water Mark, and seasonal flow. Patterson Run is located within the gen-tie alignment. Figure 3.2-7, Potential Jurisdictional Aquatic Resources – USACE, depicts the water features detected on the Project site during the jurisdictional delineations.

The results of the 2024 aquatic resources delineation performed by Dudek biologists concluded that there is approximately 0.37 acres of non-wetland waters in the Study Area, within the review area for the generator tie lines. Table 3.2-~~3~~ 5 summarized the jurisdictional aquatic resources within the Study Area.

**Table 3.2-35. Summary of Jurisdictional Aquatic Resources within the Study Area**

| Jurisdiction | Project Boundary (acres/linear feet) | Study Area (acres/linear feet) | Total (acres/linear feet) |
|---|---|---|---|
| **Waters of the United States (RWQCB)** | | | |
| **Non-Wetland Waters** | | | |
| Patterson Run OHWM | N/A | 0.37/846 | 0.37/846 |
| **Waters of the State (RWQCB) Total*** | **N/A** | **0.37/846** | **0.37/846** |
| **Waters of the State (CDFW)** | | | |
| **Non-Wetland Waters** | | | |
| Patterson Run OHWM | N/A | 0.37/846 | 0.37/846 |

**Notes:**
ACOE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; OHWM = ordinary high-water mark; CDFW = California Department of Fish and Wildlife
* Totals may not sum due to rounding.

Direct impacts to Patterson Run include placement of riprap within the drainage associated with outfall improvements, and construction of a new transmission access pass across the drainage for construction and operation access to the gen-tie line, Project impacts to Patterson Run may require permitting from the USACE and

RWQCB. State permits such as Streambed Alteration Agreement would be covered under the California Energy Commission's certification opt-in process under Assembly Bill 205.

With implementation of **MM-BIO-09**, temporary and permanent adverse impacts to potentially jurisdictional waters would be less than significant with mitigation.

### Indirect Impacts

Construction-related indirect impacts may include inadvertent spillover impacts outside of the construction footprint, dust accumulation on adjacent native habitats, chemical spills, stormwater erosion and sedimentation, and increased wildfire risk. To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust control measures in accordance with the Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction.

The Construction General Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which requires implementation of Best Management Practices (BMPs) to control stormwater run-on and runoff from construction work sites. The California Energy Commission (CEC) would also require the Applicant to implement a drainage, erosion, and sediment control plan (DESCP) to reduce the impact of run-off during construction, operation, maintenance, and decommissioning. Erosion control facilities to be shown on the final grading plan would control and contain erosion-induced silt deposits and provide for the safe discharge of silt free stormwater into existing and proposed storm drain facilities during the rainy season (October 1 to April 15) after rough grading has been completed. The Project would include stormwater detention and LID features, constructed in compliance with the Stormwater Technical Guidance Manual.

The LID features would consist of bioretention basins consisting of permeable gravel with a perforated underdrain pipe, overlain by a permeable bioretention soil mix. A riser outlet structure would allow for overflow of excessive stormwater flows. With the exception of the southwest Project boundary, ten stormwater outlets would be constructed around the perimeter of the facility. These outlets would include riprap to further reduce (in addition to the bioretention basins) off-site stormwater flow velocities. Minimal off-site stormwater flow velocities would prevent off-site erosive scour of sediments, which in turn would prevent siltation of downstream water bodies, off-site flooding, and off-site exceedance of stormwater drainage facilities. As a result, no water quality impacts would occur as a result of non-stormwater discharges.

Example BMPs to employ on site during construction to reduce potential indirect impacts to sensitive and protected resources to less than significant include the following:

- Sediment and erosion control measures would be developed and implemented in accordance with RWQCB Construction General Permit requirements to reduce the potential for the Project to result in increased siltation of, or release of pollutants into creeks and their tributaries.
- The footprint of disturbance would be limited to the maximum extent feasible, such as limiting access to via pre-existing access routes to the greatest extent possible. Parking, staging, storage, excavation, and disposal site locations would be confined to the smallest areas possible and be positioned at previously disturbed areas to the greatest extent practical.
- To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 2 feet deep would be covered with tarp, plywood, or similar materials at the close of each working day to prevent animals from being trapped. Ramps may be constructed of earth fill or wooden planks within deep-walled trenches to allow for animals to escape. Before such holes or trenches are

backfilled, they would be thoroughly inspected for trapped animals. If trapped animals are observed, escape ramps or structures would be installed immediately to allow escape. If the trapped animal is injured and cannot use escape ramps or structures, a qualified biologist would be contacted to identify the appropriate next steps.

- All construction pipes, culverts, and similar structures that are stored at the construction site for one or more overnight periods would be thoroughly inspected for burrowing owls and nesting birds before the pipe is subsequently buried, capped, or otherwise used or moved. An option is to cap the ends of any stored pipes to prevent any animals from entering. If an animal is discovered inside a pipe, that section of pipe would not be moved until the Project biologist or designated representative has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated out of harm's way by an approved biologist.

Impact 3.2-4 Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites?

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The Study Area does not overlap with any California Essential Habitat Connectivity Areas (CDFW 2014) but is considered part of the large contiguous Natural Landscape Block that extends from Alameda County south through the Diablo Range and Southern Coastal Ranges, terminating north of the Transverse Ranges (CDFW 2017). Given that the existing vegetation is surrounded on three sides by similar annual grassland habitat and is close to the existing PG&E Tesla substation, the Study Area likely provides movement habitat for local wildlife but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale.

No significant direct or indirect permanent impacts would occur on wildlife movement or use of native wildlife nursery sites associated with Project activities. Existing habitat linkages and wildlife corridor functions would remain intact while construction activities are conducted and following Project completion. Construction activities would not likely result in permanent impacts to wildlife movement because no new structures that would impede wildlife movement are proposed.

During construction activities, temporary disturbance to local species may occur, but would not substantially degrade the quality or use of the vegetation communities in the vicinity. Some indirect impacts to localized wildlife movement could occur during construction activities due to construction-related noise. However, this impact would be temporary and would not be expected to significantly disrupt wildlife movement during and following construction activities.

Therefore, direct and indirect impacts on wildlife corridors and migratory routes resulting from the proposed Project would be **less than significant**.

Impact 3.2-5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

There are no tree preservation policies or ordinances in Alameda County. The Alameda County General Plan and Code of Ordinances have policies for protecting riparian, wetland, and watercourse habitats. The recommended avoidance and minimization measures to protect aquatic resources ensure this impact is **less than significant**.

Impact 3.2-6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The EACCS provides a framework for natural resource conservation and to streamline the environmental permitting process within the eastern portion of the county. The PSA is in Conservation Zone (CZ) 10 of the EACCS. This CZ emphasizes conservation priorities that may conflict with the Project implementation, such as protection of all big tarplant occurrences, protection of critical habitat for CRLF (including annual grasslands near ponds), and protection and restoration of Patterson Run. The impacts to the EACCS CZ-10 from Project development are a very small percentage of the inventory of those lands in CZ-10.

The Project would obtain applicable permits and other approvals from USFWS, USACE, CDFW, and RWQCB, and will minimize and mitigate impacts on natural resources to comply with the regulatory standards of these agencies. These are the same regulatory standards applied by USFWS and the other environmental agencies in their review and approval of the EACCS. The Project would adhere to AMMs that comply or exceed EACCS guidelines, so development of this PSA will not conflict with implementation of the EACCS, and Project effects on EACCS Covered Species, if present, would be avoided and minimized. Further, the Project would provide compensatory mitigation for impacts to aquatic resources and specific EACCS covered species through the acquisition of credits ~~from existing mitigation banks and other compensatory mitigation~~ through purchase and long-term conservation of mitigation property located in the immediate vicinity of the Project.

The EACCS defines standardized mitigation ratios for each of the focal species to be utilized by local jurisdictions and resource agencies to determine the level of mitigation necessary to offset project impacts. These are based upon an evaluation of the habitat quality on the Study Area scored using species-specific “habitat units.” Mitigation ratios are then calculated based on the acreage of habitat affected, the location of the site, and the species-specific mitigation ratio table. Total mitigation acreages may vary depending on the location of selected mitigation areas the total habitat acreage affected by the Project.

## 3.2.4 Cumulative Effects

Cumulative effects on biological resources because of past, present, and reasonably foreseeable future actions, in combination with the Project, would mainly result from loss of habitat and habitat disturbance and degradation. A cumulative impact refers to a project’s incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the facility (Public Resource Code [PRC] Section 21083; 14 CRR 15064[h], 16065[c], 15130, and 15355). Cumulative impacts from the Project are expected to be **less than significant**.

## 3.2.5 Avoidance and Minimization Measures

The following section describes the measures that are intended to avoid and minimize potential adverse effects of the Project to biological resources. Measures for special-status species covered by the EACCS adhere to avoidance and minimization measures detailed in Table 3-2 of the EACCS (ICF 2010). A Biological Resources Mitigation

Implementation and Minimization Plan will be prepared prior to construction that outlines how the Applicant will implement the mitigation and protection measures developed specifically for the Project through consultation.

### 3.2.5.1 Minimization Measures for Construction and Decommissioning

The following section presents avoidance, minimization, and mitigation measures to avoid, minimize, or mitigate impacts to all special-status plant and wildlife species and other sensitive biological or aquatic resources during the construction and decommissioning phase of the proposed Project.

MM-BIO-1 Special-status Plant Species Avoidance. Complete avoidance of the population of big tarplant will reduce potential impacts to less than significant.

a. Prior to construction, a botanist familiar with big tarplant will identify and flag the extant population onsite for complete avoidance.
b. Environmentally sensitive area fencing and appropriate signage should be installed at a minimum of 20 feet from the edge of the big tarplant population. The Project should avoid performing any construction-related activities within this environmentally sensitive area.

MM-BIO-2 Implement General Measures to Reduce Effects on EACCS Focal Species. Implementation of applicable general avoidance and minimization measures will reduce potential adverse effects to EACCS special-status wildlife during construction of the Project (ICF 2010).

a. GEN-01: Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and Avoidance and Minimization Measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.
b. GEN-02: Environmental tailboard trainings will take place on an as-needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors, Managers, Superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.
c. GEN-03: Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements, AMMs.
d. GEN-04: The following will not be allowed at or near work sites for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).
e. GEN-05: Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.
f. GEN-06: Off-road vehicle travel will be minimized.
g. GEN-07: Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land-cover types, or during off-road travel.
h. GEN-08: Vehicles or equipment will not be refueled within 100 feet of a wetland, stream, or other waterway unless a bermed and lined refueling area is constructed.

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

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

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

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

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

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

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

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

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

MM-BIO-3 Implement Amphibian Avoidance and Minimization Measures-1 and -2 of the EACCS to Reduce Effects during construction on CTS and CRLF. Implementation of applicable amphibian avoidance and minimization measures will reduce potential adverse effects to EACCS-covered amphibians that utilize the site as upland refuge and overland migration habitat during construction of the Project (ICF 2010).

a. If aquatic habitat is present, a qualified biologist will stake and flag an exclusion zone prior to activities. The exclusion zone will be fenced with orange construction zone and erosion control fencing (to be installed by construction crew). The exclusion zone will encompass the maximum practicable distance from the work site and at least 500 feet from the aquatic feature wet or dry (EACCS AMPH-1).

~~a~~b. A qualified biologist will conduct preconstruction surveys prior to activities define a time for the surveys (before groundbreaking). If individuals are found, work will not begin until they are moved out of the construction zone to a USFWS/CDFW approved relocation site.

~~b~~c. A Service-approved biologist should be present for initial ground disturbing activities.

~~c~~d. Barrier fencing will be constructed around the worksite to prevent amphibians from entering the work area. Barrier fencing will be removed within 72 hours of completion of work.

~~d~~e. No monofilament plastic will be used for erosion control.

ef. Construction personnel will inspect open trenches in the morning and evening for trapped amphibians.

fg. A qualified biologist possessing a valid ESA Section 10(a)(1)(A) permit or USFWS approved under an active biological opinion, will be contracted to trap and to move amphibians to nearby suitable habitat if amphibians are found inside fenced area.

gh. Work will be avoided within suitable habitat from October 15 (or the first measurable fall rain of 1" or greater) to May 1.

MM-BIO-4 Compensatory Mitigation for the removal of CRLF and CTS upland and dispersal habitat. To mitigate for the permanent removal of approximately ~~57~~ 60.7 acres of upland critical habitat for CRLF, and upland and dispersal habitat for CTS, similar habitat will be preserved through the purchase of in-kind habitat credits at a USFWS- and CEC/CDFW-approved mitigation bank or turnkey mitigation property. The standardized base mitigation ratios detailed in the EACCS for CTS and CRLF is 3:1 (acres preserved: acres removed) (ICF 2010). This base ratio can be modified using the Mitigation Score Sheets provided in Appendix A of the EACCS (ICF 2010). Based on existing conditions in the Study Area and distance from breeding habitat for these species, permanent impacts will be mitigated at ratios no less than ~~1.93~~:1 for CTS and ~~2.33~~:1 for CRLF (Appendix 3.2E). Thus, no less than 182.1 acres of in-kind habitat credits will be purchased from an approved mitigation bank or established at a turn-key mitigation property. The final ratio for mitigation of permanent impacts will be decided in consultation with USFWS and CEC with CDFW consultation.

MM-BIO-5 Pre-Construction Nesting Bird Surveys and Avoidance**.** To the extent practicable, 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.

a. 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.

b. 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.

c. 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.

d. 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):

- 150 feet for passerines and other non-raptors
- 500 feet for raptors and owls
- 250 feet for occupied burrowing owl burrows
- 500 feet for federally and/or state-listed species unless otherwise specified in MM-BIO-6, MM-BIO-7, and MM-BIO-8.

e. 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).

f. 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.

~~g. If an active burrowing owl nest is identified near a proposed work area and work cannot be conducted outside of the nesting season, a no-activity zone will be established by a qualified biologist. The no-activity zone will be large enough to avoid nest abandonment and will at a minimum be 250-feet radius from the nest (EACCS AMM BIRD-2).~~

~~h. If burrowing owls are present at the site during the non-breeding period, a qualified biologist will establish a no-activity zone of at least 150 feet (EACCS AMM BIRD-2).~~

~~i. If an effective no-activity zone cannot be established in either case, an experienced burrowing owl biologist will 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 owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls (EACCS AMM BIRD-2).~~If an active nest colony of tricolored blackbird is identified near a proposed work area, work will be conducted outside of the nesting season (March 15 to September 1) (EACCS AMM BIRD-3).

MM-BIO-6 Implement the EACCS Bird Avoidance and Minimization Measure BIRD-1 to avoid impacts to golden eagle, as follows. Implementation of applicable avoidance and minimization measures will avoid potential adverse effects to golden eagle that may utilize the project site for hunting and foraging (ICF 2010).~~Pre-Construction Golden Eagle Surveys and Avoidance:~~

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).

~~a~~b. If nesting golden eagles are determined to be present within the Study Area or within ~~0.5~~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).

~~b~~c. 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 ~~250~~ 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~~d. 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.

MM-BIO-8 Implement EACCS Bird Avoidance Measure 2 (BIRD-2) to avoid impacts to western burrowing owl, as follows. Implementation of applicable EACCS Burrowing Owl avoidance and minimization measures will avoid potential adverse effects to western burrowing that may utilize the project site as breeding or over-wintering habitat during construction of the Project (ICF 2010).

a) If an active nest is identified near a proposed work area work will be conducted outside of the nesting season (March 15 to September 1).

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 will be established by a qualified biologist. The no - activity zone will be large enough to avoid nest abandonment and will at a minimum be 250 - feet radius from the nest.

c) If burrowing owls are present at the site during the non - breeding period, a qualified biologist will establish a no - activity zone of at least 150 feet.

d) If an effective no - activity zone cannot be established in either case, an experienced burrowing owl biologist will 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 owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owl.

MM-BIO-9 Compensatory Mitigation for the removal of western burrowing owl habitat. To mitigate for the permanent removal of approximately 60.7 acres of foraging and potential breeding and overwintering habitat for western burrowing owl, similar habitat will be preserved through the purchase of in-kind habitat at a turnkey mitigation property or purchase of credits at a mitigation bank or. Because burrowing owl is not a covered species in the EACCS, there is no standardized ratio for mitigation currently. However, based on the abundant availability of habitat within the surrounding region and the relatively small acreage being permanently removed from the regional grassland complex, a ratio of no less than 1:1 (acres preserved: acres removed) is anticipated to adequately offset impacts to potential breeding and foraging habitat. Thus, no less than 60.7 acres of in-kind habitat will be preserved at a turnkey mitigation property or credits will be purchased from an approved bank. Upland CTS and CRLF credits described in MM-BIO-4 may be used for burrowing owl habitat if this species is present at the turnkey mitigation property or mitigation bank. The final ratio for mitigation of permanent impacts will be decided in consultation with CEC with CDFW consultation.

MM-BIO-10 Implement EACCS Mammal Avoidance and Minimization Measure-1 (MAMM-1) to avoid impacts to San Joaquin Kit Fox. Implementation of applicable mammal avoidance and minimization measures will avoid potential adverse effects to EACCS-covered mammals that may utilize the project site during construction of the Project (ICF 2010).

a. If potential dens are present, their disturbance and destruction will be avoided.

b. If potential dens are located within the proposed work area and cannot be avoided during construction, qualified biologist will determine if the dens are occupied or were recently occupied using methodology coordinated with the USFWS and CDFW. If unoccupied, the qualified biologist will collapse these dens by hand in accordance with USFWS procedures (USFWS 2011).

c. Exclusion zones will be implemented followoing USFWS procedures (USFWS 1999) or the latest USFWS procedures avaialble at the time. The redius of these zones will follow current

standards or will be as follows: Potential Den 50 feet; Known Den 100 feet; Natal or Pupping Den – to be determined on a cas by case basis in coordination with USFWS and CDFW.

d. Pipes will be capped, and trenches will contain exit ramps to avoid direct mortality while construciton area is active.

MM-BIO-11 Implement pre-construction surveys and avoidance buffers for proposed-listed bumble bee species. Pre-construction bumble-bee surveys and avoidance buffers conducted per the recommendations outlined in CDFW's Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) will avoid potential impacts to these species by preventing direct harm.

a) The pre-construction survey will be performed by a biologist with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week, preferably spaced two to four weeks apart. The timing of these surveys shall coincide with the Colony Active Period (April 1 through August 31 for Crotch bumble bee). Surveys shall occur at least 1 hour after sunrise and 2 hours before sunset. Surveys will not be conducted during wet conditions (e.g., foggy, raining, or drizzling) and surveyors will wait at least 1 hour following rain. Optimal surveys are when there are sunny to partly sunny skies that are greater than 60° Fahrenheit. Surveys may be conducted earlier if other bees or butterflies are flying. Surveys shall not be conducted when it is windy (i.e., sustained winds greater than 8 mph). Within non-developed habitats, the biologist shall look for nest resources suitable for bumble bee use. Ensuring that all nest resources receive 100% visual coverage, the biologist shall watch the nest resources for up to five minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence would be apparent after five minutes of observation. If a bumble bee worker is detected, then a representative shall be identified to species. Biologists should be able view several burrows at one time to sufficiently determine if bees are entering/exiting them depending on their proximity to one another. It is up to the discretion of the biologist regarding the actual survey viewshed limits from the chosen vantage point which would provide 100% visual coverage; this could include a 30- to 50-foot-wide area. If a nest is suspected, the surveyor can block the entrance of the possible nest with a sterile vial or jar until nest activity is confirmed (no longer than 30 minutes).

b) If nest resources occupied by Crotch bumble bee are detected within the construction area, no construction activities shall occur within 100 feet of the construction zone, or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources will be avoided for the duration of the Crotch bumble bee nesting period (February 1 through October 31). Outside of the nesting season, it is assumed that no live individuals would be present within the nest as the daughter queens (gynes) usually leave by September, and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

c) If the nest resources cannot be avoided, as outlined in this measure, the project applicant will consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit.

d) In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project, or as otherwise determined through the Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a mitigation bank or turnkey mitigation property. If mitigation is not purchased through a mitigation bank, and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a Project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development.

#### 3.2.5.2 Minimization Measure for Site Restoration

Over the long term, once the Project facilities are no longer needed, the structures will be removed the Project area will be restored to approximate preconstruction conditions. Because rehabilitation of the site is not expected to occur for approximately 35 years, a draft conceptual plan may be included as part of the Biological Resources Mitigation Implementation and Minimization Plan. This draft plan can then be updated at a later date (but no more than 1 year prior to closure). A formal rehabilitation plan for the Project facility closure will be developed by the Project owner and submitted to the CEC Compliance Manager at least 1 year prior to facility closure. The facility closure restoration plan will include the following sections and details:

- Goals and objectives of the restoration
- A description of methods employed to achieve the restoration goals and objectives
- Success criteria used to determine whether the restoration was successful
- A monitoring and maintenance program, including details on remedial measures
- A description of annual reporting
- A restoration implementation and monitoring timeline and schedule of planned activities.

### 3.2.6 Laws, Ordinances, Regulations, and Standards

The following subsections within Section 3.2.6 describe the laws, ordinances, regulations, and standards (LORS) that apply to potential impacts on biological resources in the Project area and list the agencies responsible for enforcing the regulations. A summary of the applicable federal, state, and local LORS is provided in Table 3.2-46.

**Table 3.2-~~4~~6. Summary of the Applicable Federal, State, and Local LORS**

| LORS | Requirements/Applicability | ~~Administering Agency~~Opt-In Application Reference | Conformance Discussion |
|---|---|---|---|
| **Federal** | | | |
| Federal ESA (16 USC 1531 et seq.) | Designates and protects federally threatened and endangered plants and animals and their critical habitat. Applicants for projects that could results in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS. | Sections 3.2.1.7 and 3.2.5.1~~USFWS~~ | Federally threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the USFWS. |
| MBTA (16 USC 703 to 711) | Protects all migratory birds, including nests and eggs | Section 3.2.1.7.1<br>~~USFWS~~Page 3.2-13 and 3.2-31 | Pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds. |
| Bald and Golden Eagle Protection Act (16 USC 668) | Specifically protects bald and golden eagles from harm or trade in parts of these species | ~~USFWS~~Pages 3.2-22 and 3.2-31 | Pre-construction surveys and avoidance buffers to prevent take of eagles. |
| **State** | | | |
| CESA (Fish and Game Code Section 2050 et seq.) | Species listed under this act cannot be "taken" or harmed, except under specific permit. Take in the context of CEQA means to hunt, pursue, kill, or capture as well as any other actions that may result in an adverse impact when attempting to take a listed species. | Sections 3.2.1.7 and 3.2.5.1~~CEC, CDFW~~ | State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW. |
| Fish and Game Code Section 3511 | Describes bird species, primarily raptors that are FP (Fully Protected). FP birds may not be taken or possessed, except under specific permit requirements. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | No take of FP bird species is anticipated. |
| Fish and Game Code 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 this code or any regulation made pursuant thereto. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | Preconstruction surveys and avoidance buffers prevent impacts to nesting birds. |
| Fish and Game Code Section 3503.5 | It is unlawful to take, possess, or destroy any birds in the order *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 this code or any regulation made pursuant thereto. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | Preconstruction surveys and avoidance buffers prevent impacts to nesting raptors. |
| Fish and Game Code Section 3513 | It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act 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 Migratory Bird Treaty Act. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | Preconstruction surveys and avoidance buffers prevent imacts to migratory birds. |
| Fish and Game Code Sections 351, 4700, 5050, and 5515 | Lists bird, mammal, amphibian, reptile, and fish species that are FP in California | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | FP species discussed. No take of FP species anticipated. |
| NPPA Fish and Game Code Sections 1900 et seq. | The Native Plant Protection Act (NPPA) lists threatened, endangered, and rare plants listed by the State. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | No threatened, endangered, or rare plants anticipated to occur. Preconstruction surveys and avoidance buffers provide further protection. |
| Fish and Wildlife Code Sections 1900 et seq. | Lists endangered or rare native plants of the State and establishes criteria for determining rarity or listing status. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | No endangered or rare plants present. Preconstruction surveys and avoidance buffers prevent potential impacts to rare plant species. |
| Title 14 CCR, Sections 670.2 and 670.5 | Lists animals designated as threatened or endangered in California | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW. |
| CFG Code Sections 1601-1607 | Prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels without a permit from CDFW. | Sections 3.2.1.7 and 3.2.5.1~~CDFW~~ | Permit from CEC/CDFW will be in hand prior to impacts to Patterson Run. |

**Table 3.2-~~4~~6. Summary of the Applicable Federal, State, and Local LORS**

| LORS | Requirements/Applicability | ~~Administering Agency~~Opt-In Application Reference | Conformance Discussion |
|---|---|---|---|
| CEQA PRC Section 15380 | CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency. | Sections 3.2.1.7 and 3.2.5.1~~CEC~~ | Environmental resources analyzed using CEC criteria. |
| Warren Alquist Act PRC 25000, et seq. | A CEQA-equivalent process implemented by the CEC. | Sections 3.2.1.7 and 3.2.5.1~~CEC~~ | Environmental resources analyzed using CEC criteria. |
| California Assembly Bill 205 | Emergency regulation expanding the CEC's siting authority for renewable energy projects. Allows certification in lieu of CDFW 2081 ITP or CFGC Section 1600 et seq. LSAA. | All Sections~~CEC~~ | Take authorization and LSAA to be coordinated with CEC with input from CDFW. |

### 3.2.6.1 Federal LORS

#### 3.2.6.1.1 Federal ESA (16 United States Code [USC] 153 et seq.)

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. The FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the FESA, it is unlawful to "take" any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement.

#### 3.2.6.1.2 MBTA (16 USC 703 to 711)

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended (MBTA), prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. In December 2017, Department of the Interior Principal Deputy Solicitor Jorjani issued a memorandum (M-37050) that interprets the MBTA's "take" prohibition to apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs. Unintentional or accidental take is not prohibited. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

#### 3.2.6.1.3 Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, includes their parts, nests, or eggs. The Act provides criminal penalties for person who "take, possess, sell, purchase, bater, offer to sell, transport, export or import, at any time or any manner, any bald eagle… [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, kill, wound, capture, trap, collect, molest or disturb."

### 3.2.6.2 State LORS

The following local laws, ordinances, and regulations apply to projects that occur within the state of California and are subject to state jurisdiction.

#### 3.2.6.2.1 CESA

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050–2068) provides protection and prohibits take of plant, fish, and wildlife species listed by the State of California. Unlike the FESA, under the CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to the FESA and is prohibited for both listed and candidate species. Take authorization may be obtained by a project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of implementation, and monitoring of mitigation measures.

#### 3.2.6.2.2 Fish and Game Code

##### Sections 3500, 3511, and 3513

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

##### Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

##### Section 5901

Section 5901 of the California Fish and Game Code makes it unlawful to construct or maintain any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream. Fish are defined in Section 45 as a wild fish, mollusk, crustacean, invertebrate, or amphibian, or part, spawn, or ovum of any of those animals.

##### Section 5937

Section 5937 of the California Fish and Game Code requires that the owner of any dam must allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around, or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by CDFW to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam to keep in good condition any fish

that may be planted or exist below the dam, when, in the judgment of CDFW, it is impracticable or detrimental to the owner to pass the water through a fishway.

#### Section 1600–1616

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of a definable bed and banks and existing fish or wildlife resources. CDFW takes jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high-water mark (OHWM) to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all projects. Applications to CDFW must include a complete, certified California Environmental Quality Act (CEQA) document.

### 3.2.6.2.3 California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and to protect endangered and rare plants from take. The CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, the CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in the CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the Project proponent.

### 3.2.6.2.4 Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Water Quality Control Act (Porter–Cologne Act), the RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050[e]). As of April 2019, the State Water Resources Control Board has narrowed its definition of a water of the state to include the following (SWRCB 2019):

1. Natural wetlands
2. Wetlands created by modification of a surface water of the state
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration

b. Specifically identified in a water quality control plan as a wetland or other water of the state
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape
d. Greater than or equal to 1 acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2019). If a CWA Section 404 permit is not required for a project, the RWQCB may still require a permit (waste discharge requirements) for impacts to waters of the state under the Porter–Cologne Act.

#### 3.2.6.2.5 Plants and Animals of California Declared to be Endangered or Threatened (Title 14, CCR, Sections 670.2 and 670.5

These codes list plants and animals designated as threatened or endangered in California. State SSC is a category conferee by CDFW of those species that are indicators of regional habitat change or are considered potential future protected species. These species do not have any species legal status but are intended by CDFW for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

#### 3.2.6.2.6 CEQA (PRC Section 15380)

CEQA requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

The State of California CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under the FESA, CESA, and other California Fish and Game Code provisions, and includes lists developed by other organizations, including, for example, the Audubon Watch List Species. Guidance documents prepared by other agencies, including the Bureau of Land Management Sensitive Species and USFWS Birds of Special Concern, are also included on the CDFW Special Species list. Additionally, CDFW has concluded that plant species listed as California Rare Plant Rank 1 and 2 by the California Native Plant Society, and potentially some California Rare Plant Rank 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV, Appendix G (Environmental Checklist Form), of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service."

### 3.2.6.2.7 Warren Alquist Act (PRC Section 25000, et seq.)

The AFC process is a certified regulatory process pursuant to the Warren-Alquist Act and, therefore, fulfills the requirements of CEQA. CEQA is codified in the California PRC, Section 2100-2118.1. Guidelines for implementation of CEQA are codified in the California Code of Regulations (CRR), Sections 15000-15387.

### 3.2.6.2.8 California Energy Commission – Assembly Bill 205

Assembly Bill (AB) 205 is an emergency regulation expanding the CEC's siting authority for renewable energy projects constructed on or before June 30, 2029. AB 205 was signed into law on June 30, 2022, and allows renewable and energy storage projects to apply for direct state permits through the CEC. CEC certification opt-in statute (specifically 25545.1(b)(1)) says "the issuance of a certificate by the commission for a site and related facility pursuant to this chapter shall be in lieu of any permit, certificate, or similar document required by any state, local, or regional agency [except California Coastal Commission, San Francisco Bay Conservation and Development Commission, and State/Regional Water Quality Control Board] … for the use of the site and related facilities, and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency…."

The application for certification process is in lieu of CDFW 2081 ITP or CFGC Section 1600 et seq. LSAA. However, applications for both of these permits will be submitted to the CEC for informational purposes. The CEC Certification will include conditions and mitigation that would otherwise be requirements in these CDFW permits.

## 3.2.6.3 Local LORS

The Project would conform to all local requirements. The following local laws, ordinances, and regulations apply to projects that occur within the County of Alameda and East Alameda County Conservation Strategy

### 3.2.6.3.1 East Alameda County Conservation Strategy

The County of Alameda (County) developed the East Alameda County Conservation Strategy (EACCS) to provide a framework for natural resource conservation and to streamline the environmental permitting process within the eastern portion of the county (ICF 2010). The EACCS is not a formal Habitat Conservation Plan (HCP) in that it does not require local agencies to conserve species and habitat prior to approving projects that impact listed species and/or their habitat, nor does it have a corresponding programmatic incidental take permit from USFWS. Instead, it is intended to streamline state and local permitting by providing guidance on avoidance, minimization, and

mitigation for project-level impacts on selected focal special-status species and sensitive habitats. Because the EACCS does not have corresponding permits, individual projects may need to implement different or more avoidance, minimization, and mitigation measures than what is outlined therein. To avoid this from happening, USFWS and CDFW participated in the development of the Conservation Strategy with the intent that it would become the blueprint for all mitigation and conservation in the region. Both agencies still refer to the EACCS when reviewing project-level impacts on focal species and their habitat. The EACCS includes standardized mitigation ratios for each of the focal species that can be used by local jurisdictions and resource agencies as guidance to determine appropriate mitigation to offset project impacts on focal species habitat. These are based on an evaluation of the habitat quality on a Study Area scored using Focal Species- Impact/Mitigation Score Sheets1 for each of the focal species assumed present or potentially present. Mitigation ratios are then calculated based on application of the same scoring sheet to the proposed mitigation site. Project specific mitigation ratios may vary depending on the quality and location of the habitat being lost and the quality and location of proposed mitigation.

The EACCS includes avoidance and minimization measures (AMMs) for all focal species covered by the EACCS These include general AMMs applicable to all focal species, as well as species- or taxon-specific AMMs. The standardized mitigation ratios discussed above are only valid if a project application is in compliance with all applicable AMMs.

### 3.2.6.3.2 Alameda County General Plan

The County maintains a General Plan, which provides guidelines for development within the County. The Study Area is located within the East County Area Plan (ECAP) (Alameda County 1994). General Plan policies that are relevant to the Project are outlined below.

Policy 123: Where site-specific impacts on biological resources resulting from a proposed land use outside the Urban Growth Boundary are identified, the County shall encourage that mitigation is complementary to the goals and objectives of the ECAP. To that end, the County shall recommend that mitigation efforts occur in areas designated as "Resource Management" or on lands adjacent to or otherwise contiguous with these lands to establish a continuous open space system in East County and to provide for long term protection of biological resources.

Policy 125. The County shall encourage preservation of areas known to support special status species.

Policy 126. The County shall encourage no net loss of riparian and seasonal wetlands.

### 3.2.6.3.3 Alameda County Code of Ordinances

The County addresses management of watercourses in the Alameda County Code of Ordinances (Alameda County 2022). Below are the existing regulations relative the Project to protect watercourses.

#### Chapter 13.12 – Watercourse Protection

#### 13.12.090 – Requirements.

No person shall commit or cause to be committed any of the following acts, unless a written permit has first been obtained from the director of public works:

A. Discharge into or connect any pipe or channel to a watercourse;

B. Modify the natural flow of water in a watercourse;

C. Carry out development within a setback, as defined in Article V of this chapter;

D. Deposit in, plant in, or remove any material from a watercourse including its banks, except as required for necessary maintenance;

E. Construct, alter, enlarge, connect to, change, or remove any structure in a watercourse; or

F. Place any loose or unconsolidated material along the side of or within a watercourse or so close to the side

G. as to cause a diversion of the flow, or to cause a probability of such material being carried away by stormwaters passing through said watercourse.

(Prior gen. code § 7-201.0)

## 3.2.7 Permit and Permit Schedule

Permits and mitigation plans required prior to construction will be the responsibility of the qualified biologist assigned by the Applicant.

## 3.2.8 Agency Contacts

Table 3.2-~~5~~ 7 lists regulatory agency contacts for biological and aquatic resources for this Project.

**Table 3.2-57. Regulatory Agency Contacts for Biological Resources**

| Natural Resource | Agency | Contact Information |
|---|---|---|
| State-listed species | CEC<br>CDFW- ~~Region 3,~~ Bay Delta Region (Region 3) | 707.428.2002;<br>askbdr@wildlife.ca.gov |
| Federally listed species | USFWS- Pacific Southwest Region (Region 8), Sacramento Fish and Wildlife Office | Ryan Olah, 916.414.6623, ryan_olah@fws.gov<br>Jason Hanni, 916-414-6600, Jason_hanni@fws.gov |
| ~~Mitigation Measures for Construction Phase~~<br>~~TBD~~<br>~~TBD~~<br><br>Waters of the United States | USACE – California Delta Section | Matthew Di Loreto, 916-557-7882, Matthew.j.diloreto@usace.army.mil |
| Waters of the State | RWQCB – Central Valley Region (Region 5) | Jenna Yang, 916-464-4764, jenna.yang@waterboards.ca.gov |

## 3.2.9 References

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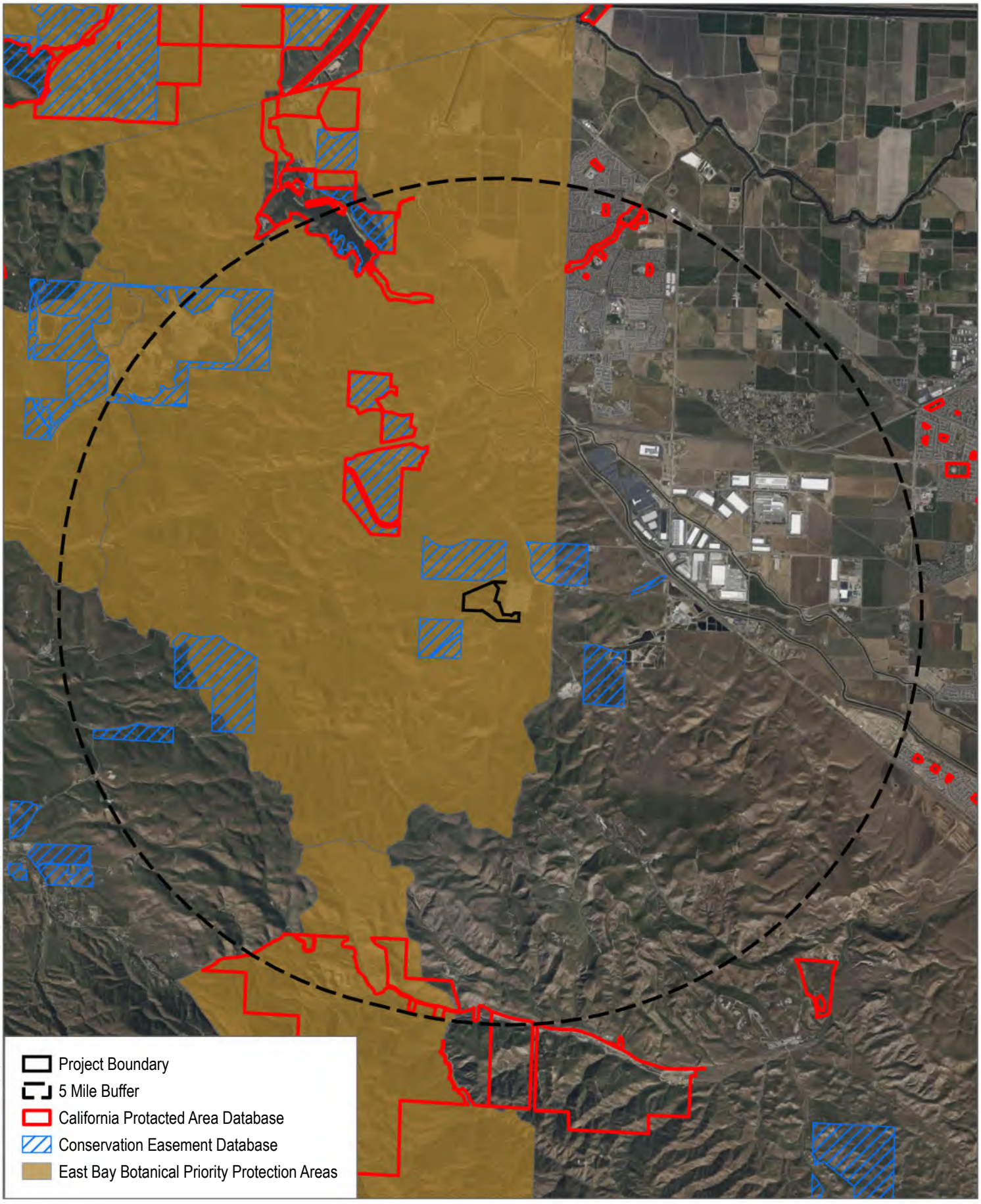


SOURCE: CPAD 2024; CCED 2024; CNPS 2024

DUDEK

0 4,000 8,000 Feet

**FIGURE 3.2-1**

Protected Areas

Potentia-Viridi Battery Energy Storage System Project

INTENTIONALLY LEFT BLANK


SOURCE: Bing Maps 2021; CA Fish and Wildlife 2021

DUDEK

0 4,000 8,000 Feet

**FIGURE 3.2-2**

Sensitive Habitat Types

Potentia-Viridi Battery Energy Storage System Project

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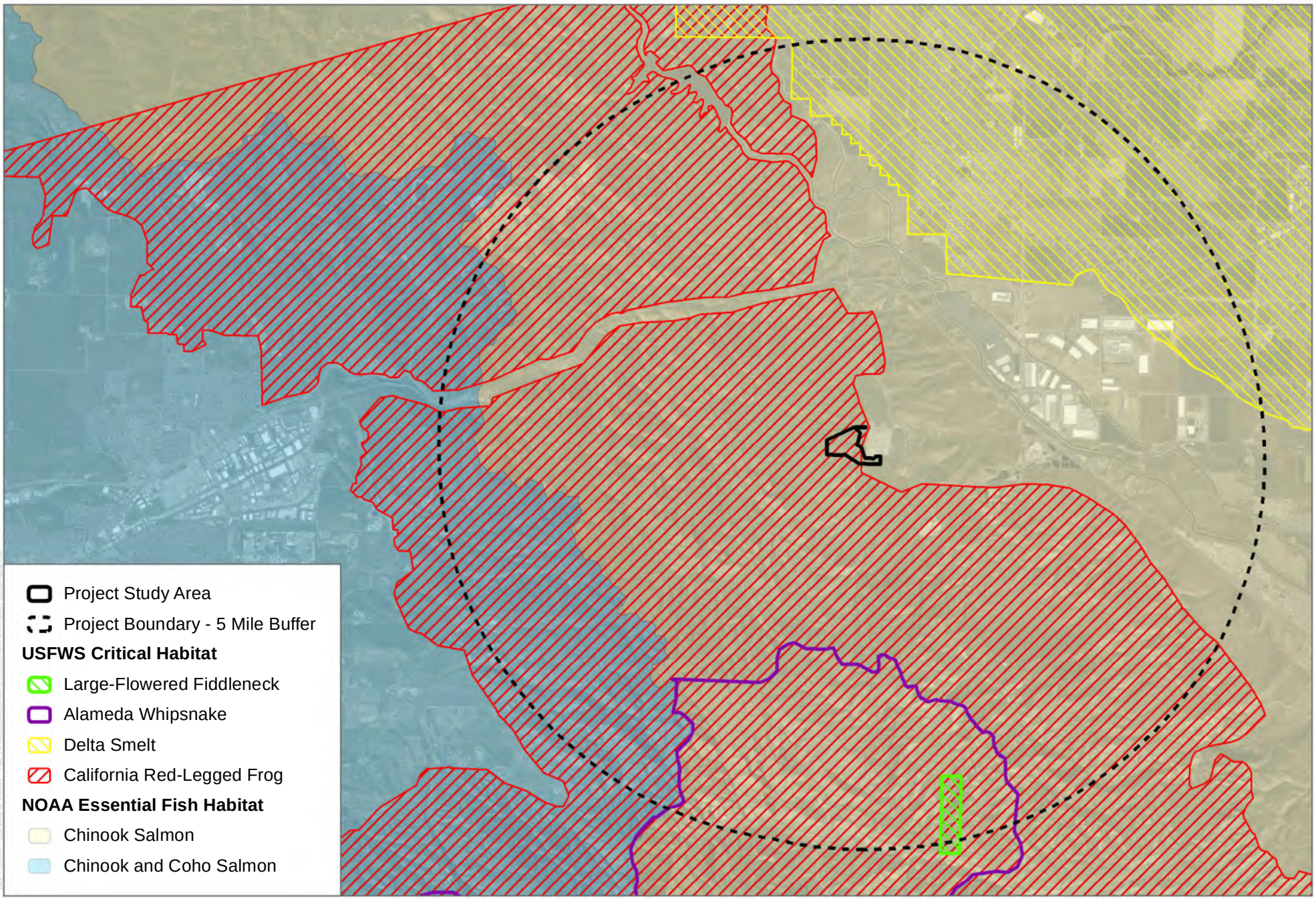


SOURCE: Bing Maps 2022, USFWS 2022, NOAA 2021

DUDEK

0 0.75 1.5 Miles

FIGURE 3.2-3

Critical Habitats

Potentia-Viridi Battery Energy Storage System Project

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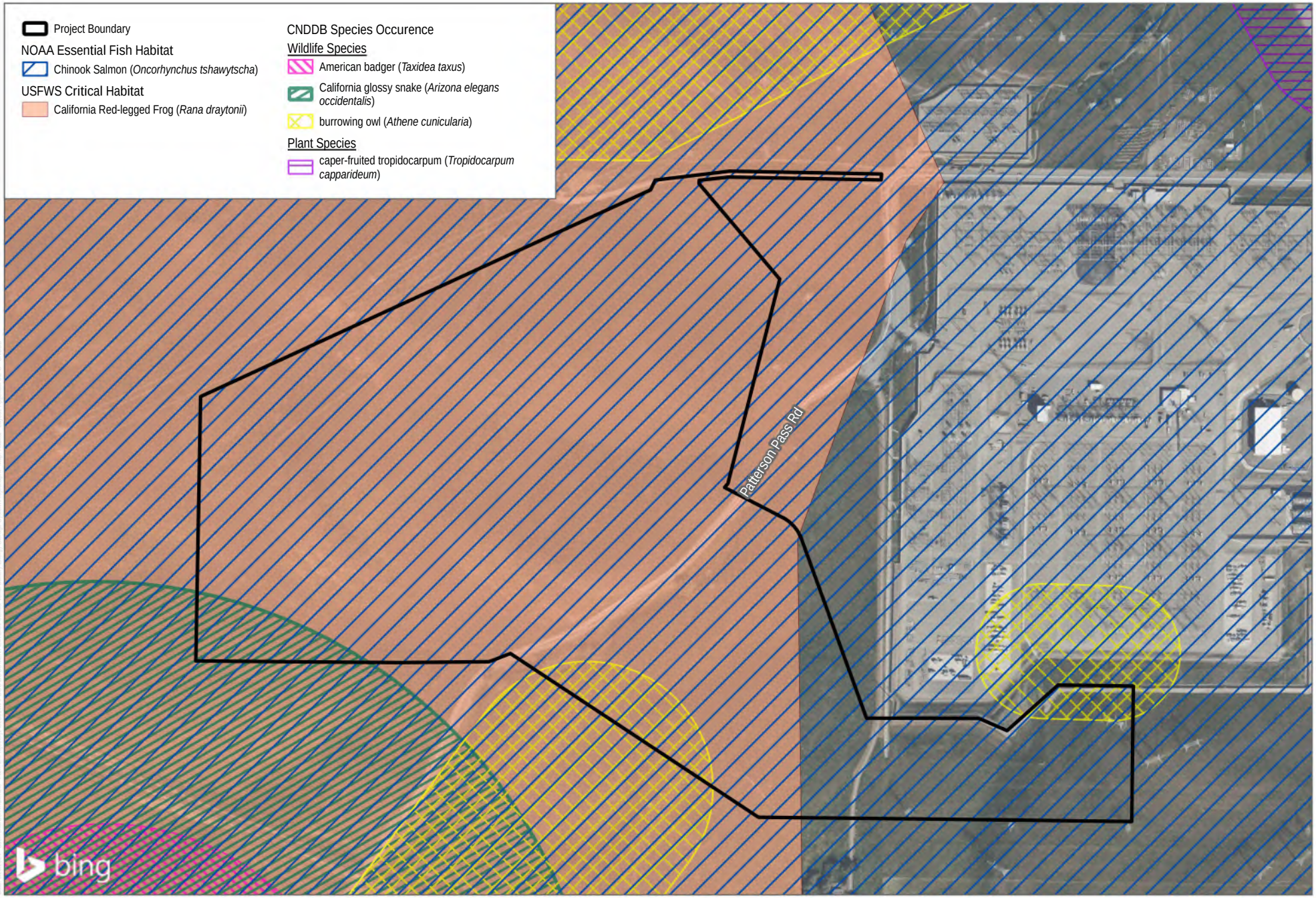


SOURCE: Bing Maps (accessed 2024);
1:6,000 | 1 inch equals 500 feet

DUDEK n 0 250 500 Feet

Figure 3.2-4
CNDDB
Potentia-Veridi Battery Energy Storage System Project

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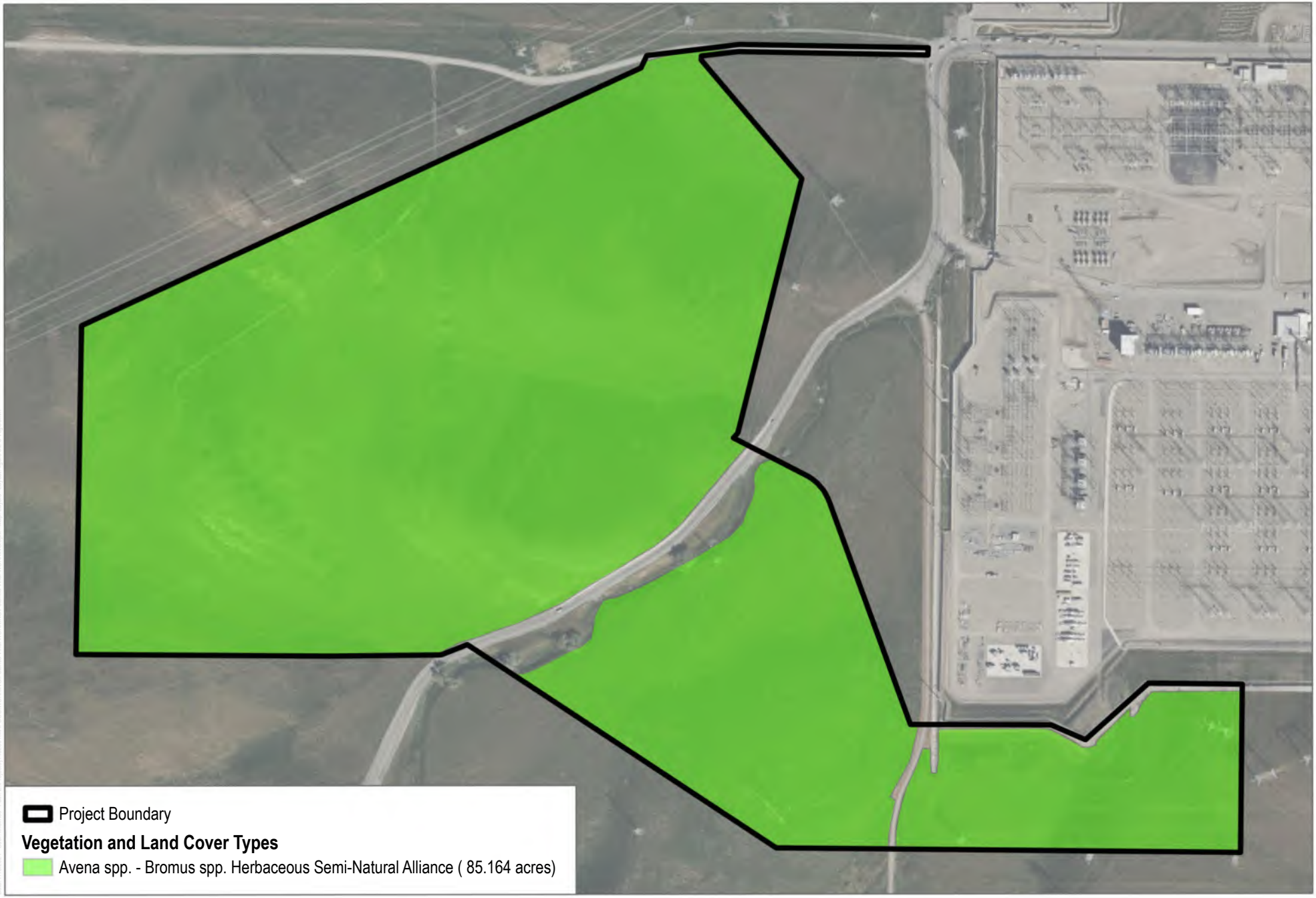


SOURCE: Bing Maps 2021

DUDEK

0 200 400 Feet

**FIGURE 3.2-5**

Vegetation Communities and Land Cover Types

Potentia-Viridi Battery Energy Storage System Project

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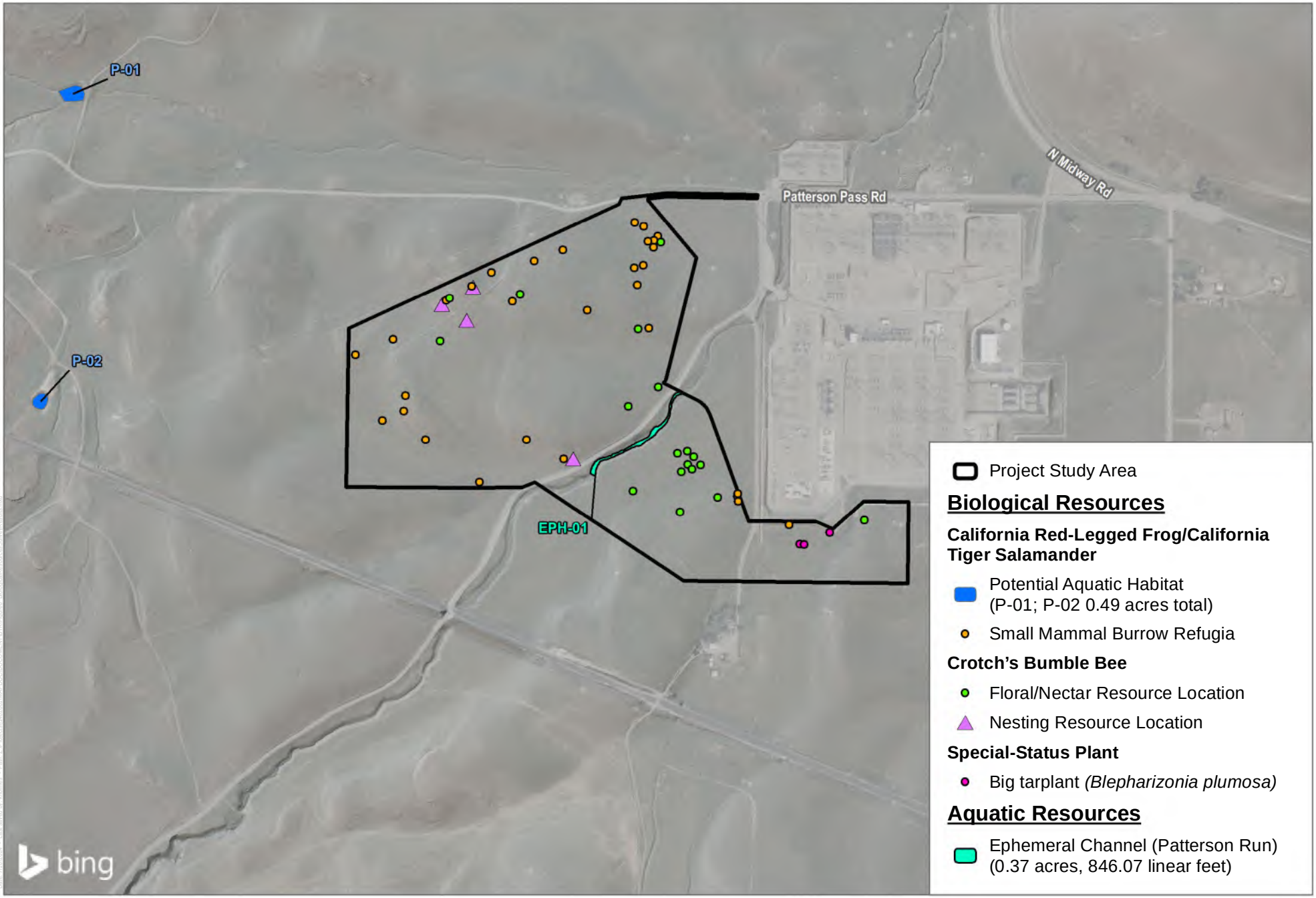


SOURCE: Bing Maps 2022, Open Street Map 2019, USGS 2022

DUDEK

0 425 850 Feet

FIGURE 3.2-6

Biological Survey Results

Potentia-Viridi Battery Energy Storage System Project

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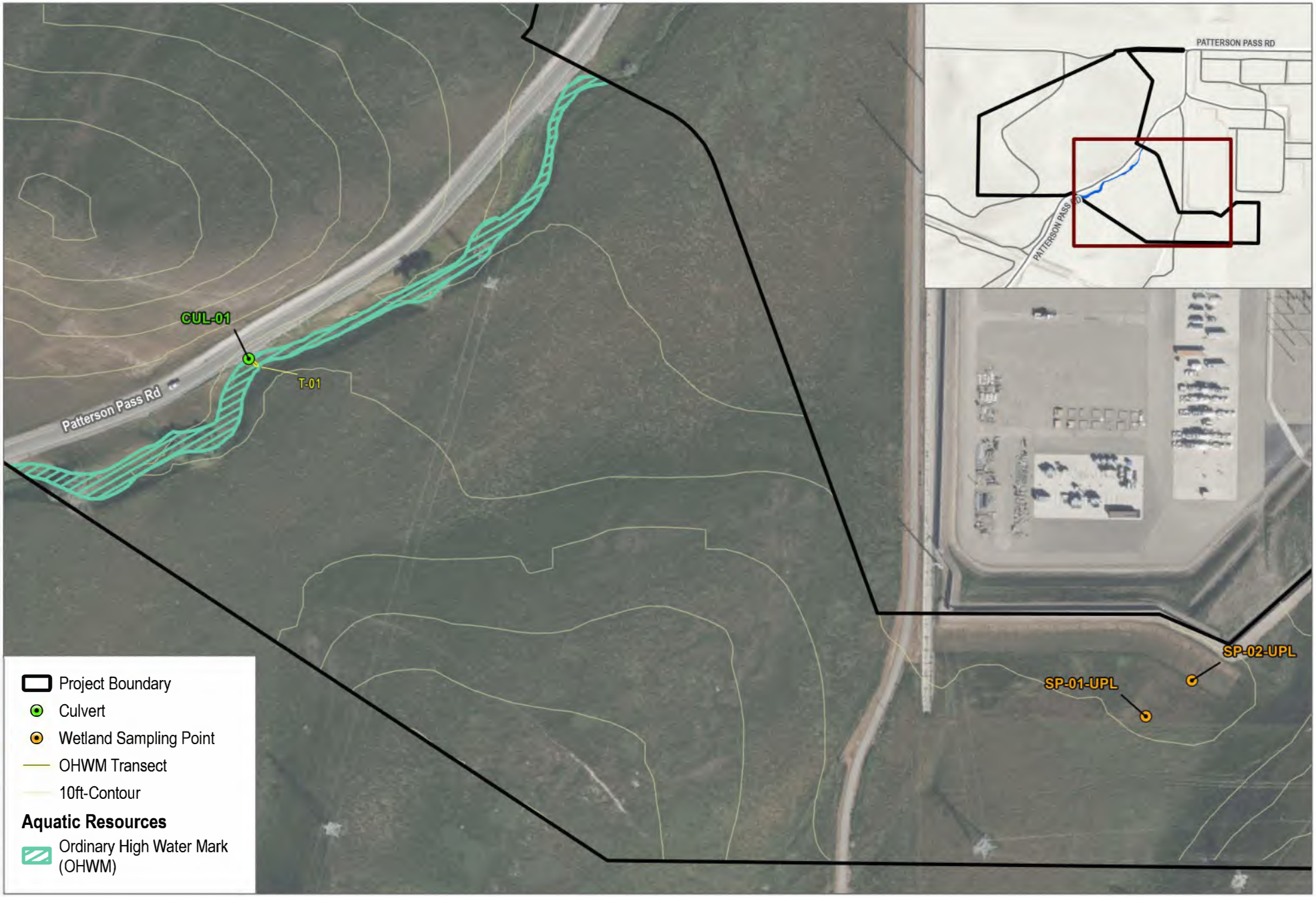


SOURCE: Bing Maps (accessed 2024)

1:2,400 | 1 inch equals 200 feet

DUDEK

0 100 200 Feet

**FIGURE 3.2-7**

Wetland Delineation

Potentia-Veridi Battery Energy Storage System Project

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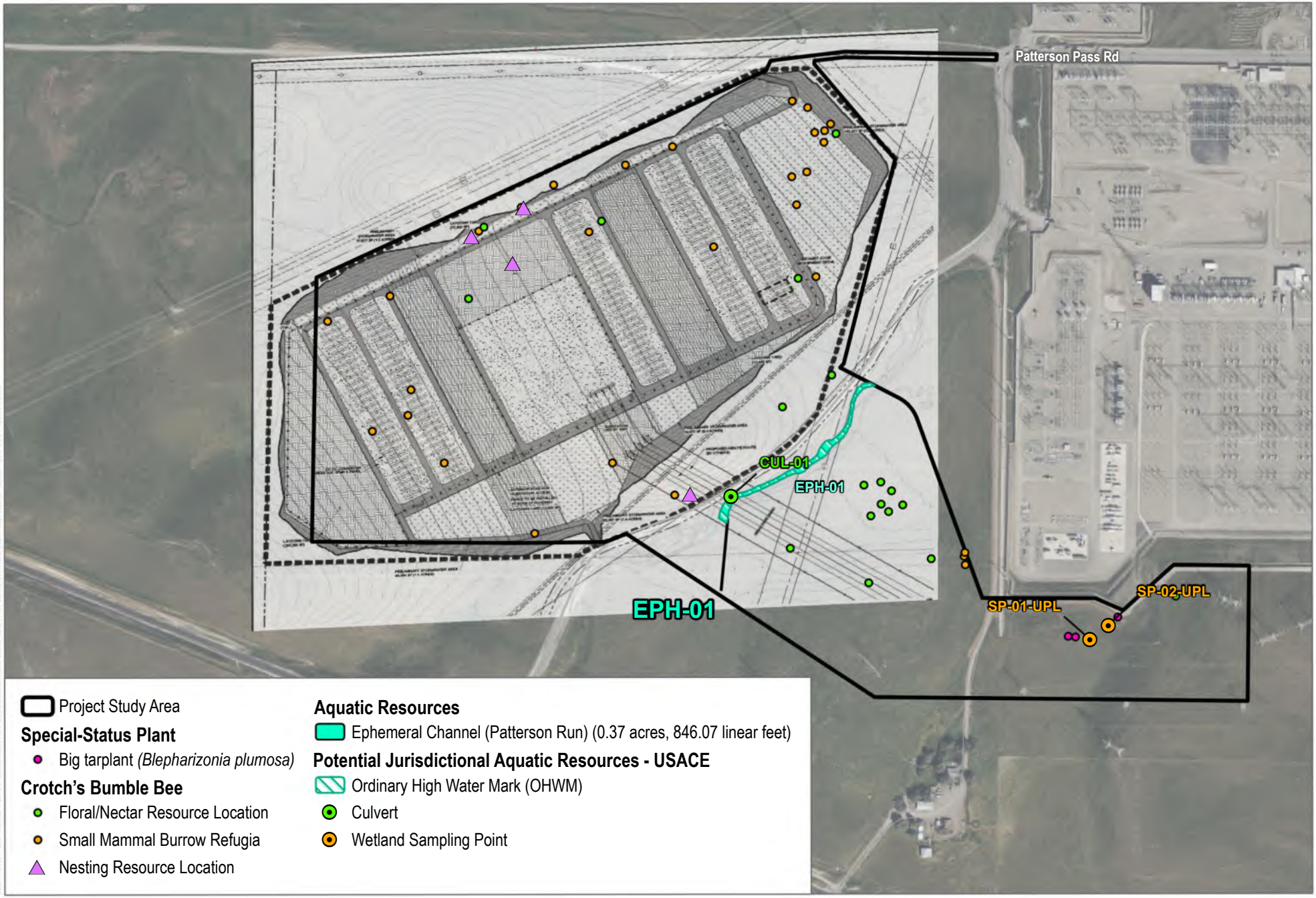


SOURCE: USGS 2022; Bing Maps 2024

DUDEK

0 250 500 Feet

**FIGURE 3.2-8**

Proposed Project Impacts

Potentia-Viridi Battery Energy Storage System Project

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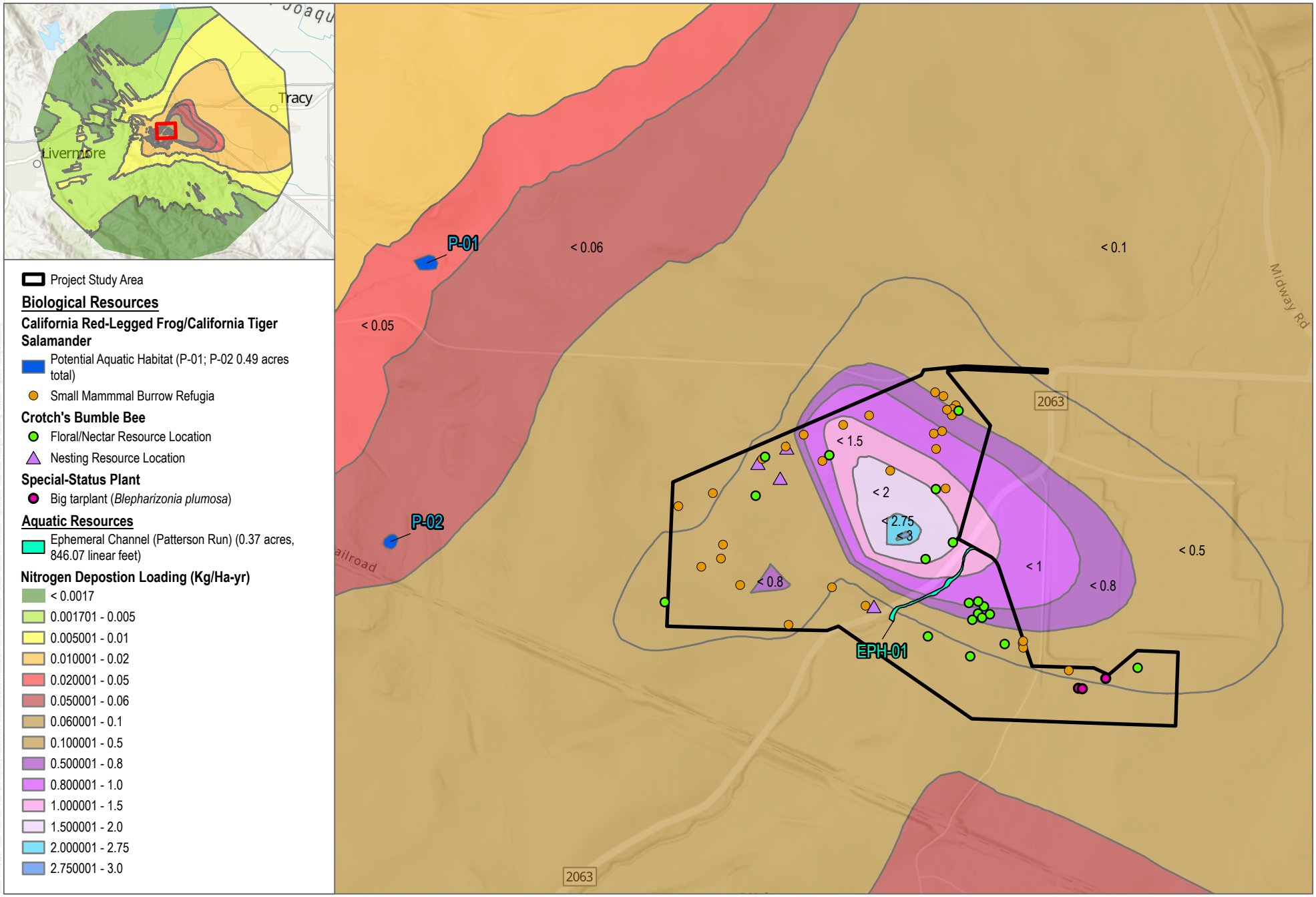


SOURCE: USGS; World Topographic

DUDEK

0 460 920 Feet

**FIGURE** 3.2-9

Biological Resource Nitrogen Deposition Loading

Potentia Viridi BESS Project

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