Estrella Substation and Paso Robles Area Reinforcement Project
Biological Resources Technical Report for
Templeton Substation Alternative
San Luis Obispo County, California

Prepared for

Horizon West Transmission, LLC
700 Universe Boulevard
Juno Beach, Florida 33408
Attn: Andy Flajole

Prepared by

SWCA Environmental Consultants
60 Stone Pine Road, Suite 100
Half Moon Bay, California 94019
(650) 440-4160
www.swca.com

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EXECUTIVE SUMMARY

A BRTR has been prepared for the Templeton Substation Alternative, which is an alternative substation location to the substation location proposed by Horizon West Transmission in its Proponent's Environmental Assessment (May 2017). Pacific Gas and Electric Company (PG&E) and Horizon West Transmission, LLC (Horizon West) prepared and filed a Proponents Environmental Assessment (PEA) with the California Public Utilities Commission (CPUC) in May 2017 for the project. The CPUC issued a PEA deficiency letter (Deficiency Letter No. 4, dated February 27, 2018) requiring that PG&E and Horizon West evaluate additional alternatives to the proposed project, including the Templeton Substation Alternative. This BRTR provides a technical environmental analysis of biological resources associated with the substation alternative. Additional field studies, engineering design, and environmental analysis will follow in subsequent phases of the alternatives evaluation process.

The Templeton Substation Alternative, herein referred to as the substation alternative, is located in unincorporated San Luis Obispo County, adjacent to the existing PG&E Templeton Substation, approximately 1.5 miles northeast of the community of Templeton. The substation alternative will be comprised of two separate and distinct substations on an approximately 13-acre site. One 230-kilovolt (kV) substation will be constructed, operated, and owned by Horizon West and one 70 kV substation will be constructed, operated, and owned by PG&E. The substation alternative would interconnect with the existing Morro Bay-Cal Flats #2 230 kV line as well as the existing Templeton Substation.

This report is intended to identify biological resources within and adjacent to the substation alternative site, and analyze impacts to biological resources that may occur as a result of the development of the substation alternative. Biological resources considered for this report include sensitive and common plants and animals, habitats and sensitive natural communities, wildlife movement corridors, and water features subject to federal or state jurisdiction. A literature review of existing information and field surveys was conducted to document biological resources at the substation alternative site encompassed within an 80-acre Biological Study Area (BSA). This BRTR outlines the methodologies used to assess the biological resources known to occur, or known to potentially occur, within the BSA. Determinations regarding likelihood of special-status species occurrence are based on an evaluation of available biological resource information dealing with regional and local conditions, species biology, existing evaluations of the substation alternative location and surrounding areas, and professional field investigation experience.

One special-status animal—American badger (*Taxidea taxus;* a California Department of Fish and Wildlife [CDFW] species of special concern [SSC])—was observed in the BSA. In addition, 15 special-status plant species and 12 special-status wildlife species were determined to be either likely, have potential, or be unlikely to occur in the BSA. There is also high potential for avian species to nest in the BSA during the typical nesting season (February 1–August 31). There are no federally designated critical habitat areas for special-status plants or animals within or immediately adjacent to the BSA. Two potentially jurisdictional drainage features were observed within the BSA, including an eroded drainage channel located immediately south of the existing PG&E Templeton Substation, and an ephemeral drainage feature, which drains into the Salinas River. The tributary to the Salinas River may serve as a wildlife migration corridor for dispersal of species between local areas and at a larger scale between regions.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
AOU	American Ornithologists' Union
BGEPA	Bald and Golden Eagle Protection Act
BRTR	Biological Resources Technical Report
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
COSE	Conservation and Open Space Element
County	County of San Luis Obispo, agency
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWHRS	California Wildlife Habitat Relationships System
ESA	federal Endangered Species Act
ESU	Evolutionary Significant Unit
GIS	Geographic Information Systems
GPS	Global Positioning System
HCP	Habitat Conservation Plan
HOA	Homeowners Association
kV	Kilovolt
MBTA	Migratory Bird Treaty Act
NCCP	Natural Communities Conservation
Horizon West	Horizon West Transmission, LLC
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory

OHWM	ordinary high water mark
OSD	Official Soil Series Description
PEA	Proponent's Environmental Assessment
PG&E	Pacific Gas and Electric Company
project	Estrella Substation and Paso Robles Area Reinforcement Project
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
substation alternative	Templeton Substation Alternative
SWRCB	State Water Resources Control Board
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 INTRODUCTION

Pacific Gas and Electric Company (PG&E) and Horizon West Transmission, LLC (Horizon West) propose to construct the Estrella Substation and Paso Robles Area Reinforcement Project (project) in the Paso Robles area of San Luis Obispo County, California. In May 2017, PG&E and Horizon West jointly prepared and filed a Proponents Environmental Assessment (PEA) with the California Public Utilities Commission (CPUC) for the project (SWCA 2017). The CPUC issued a series of PEA deficiency letters, in which Deficiency Letter No. 4, dated February 27, 2018, required that PG&E and Horizon West evaluate additional alternatives to the proposed project. In response to the CPUC's Deficiency Letter No. 4, PG&E and Horizon West are analyzing the Templeton Substation Alternative (substation alternative). This Biological Resources Technical Report (BRTR) has been prepared to document existing biological resources in the vicinity of the substation alternative. A similar report has been prepared for the power line component of the alternatives analysis, referred to as the power line alternatives, and the results of that effort are presented under separate cover.

Biological resources considered include sensitive and common plants and animals, habitats and sensitive natural communities, wildlife movement corridors, and water features subject to federal or state jurisdiction. This report describes the methodologies used to assess the biological resources known to occur and with potential to occur, and documents existing biological resources in the vicinity of the substation alternative.

A Biological Study Area (BSA) was established to include the maximum anticipated extent of effects related to this alternative. The BSA consists of an approximately 80-acre area, which includes the existing Templeton Substation, the potential 70-kilovolt (kV) substation, the potential 230 kV substation, and surrounding habitat. Field surveys focused on areas within the BSA, as described in Section 3.4, Field Surveys, below.

1.1 Alternative Location

The substation alternative is located in an unincorporated portion of north-central San Luis Obispo County, approximately 1.5 miles northeast of the community of Templeton, and approximately 4 miles south of the city of Paso Robles (Figures 1 and 2). The substation alternative is located on the south side of El Pomar Drive, at the existing Templeton Substation. The BSA encompasses an approximately 80-acre site on the following Assessor's Parcel Numbers (APNs): 033-231-004, 033-231-030, 034-011-004, 034-011-005, 033-201-015, 033-231-038, and 034-061-010.

1.2 Alternative Components

The substation alternative will be comprised of two separate and distinct substations. One 230 kV substation will be constructed, operated, and owned by Horizon West and one 70 kV substation will be constructed, operated, and owned by PG&E. The 230 kV substation will be interconnected to the existing adjacent 230 kV transmission line.

Figure 1. General Vicinity Map

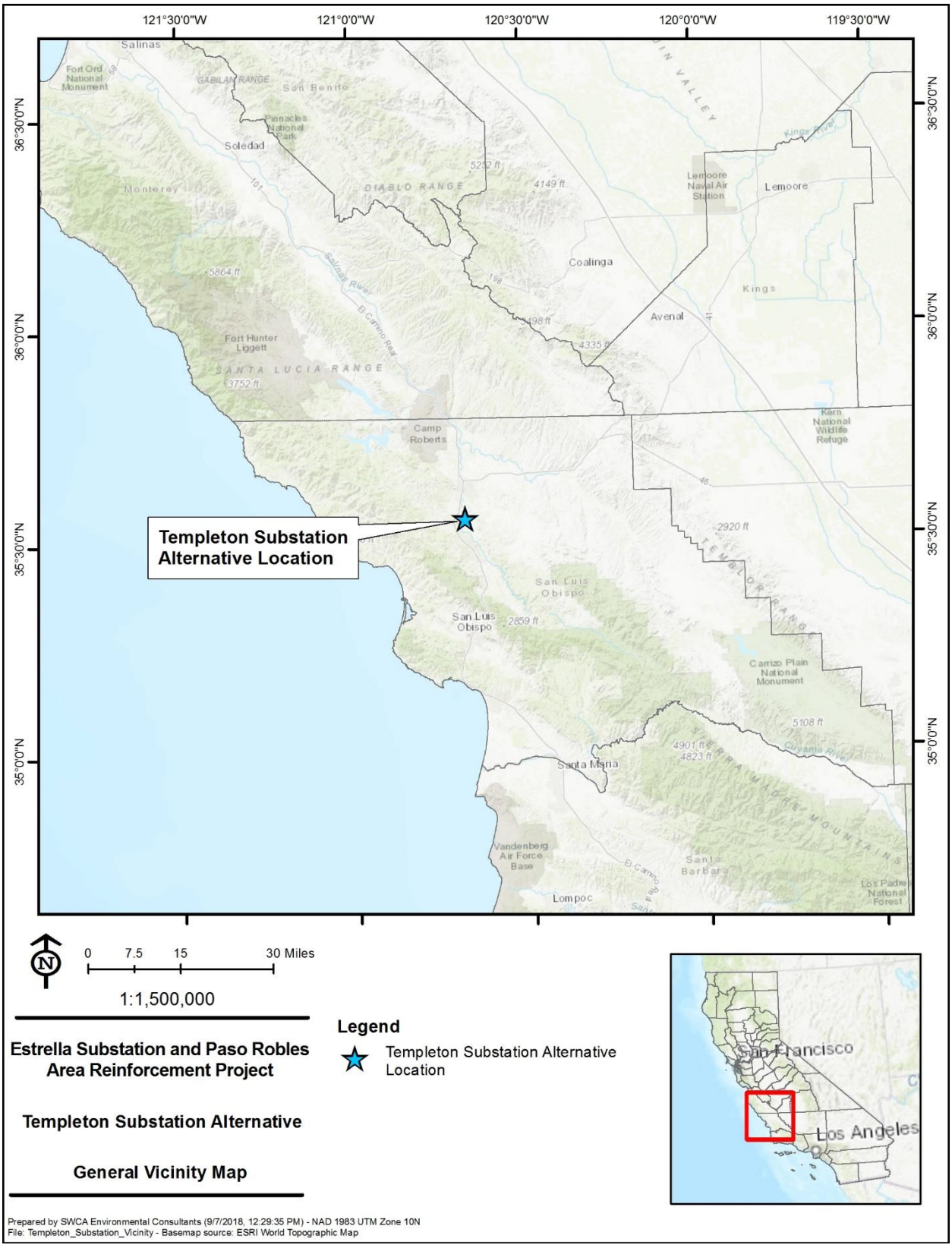
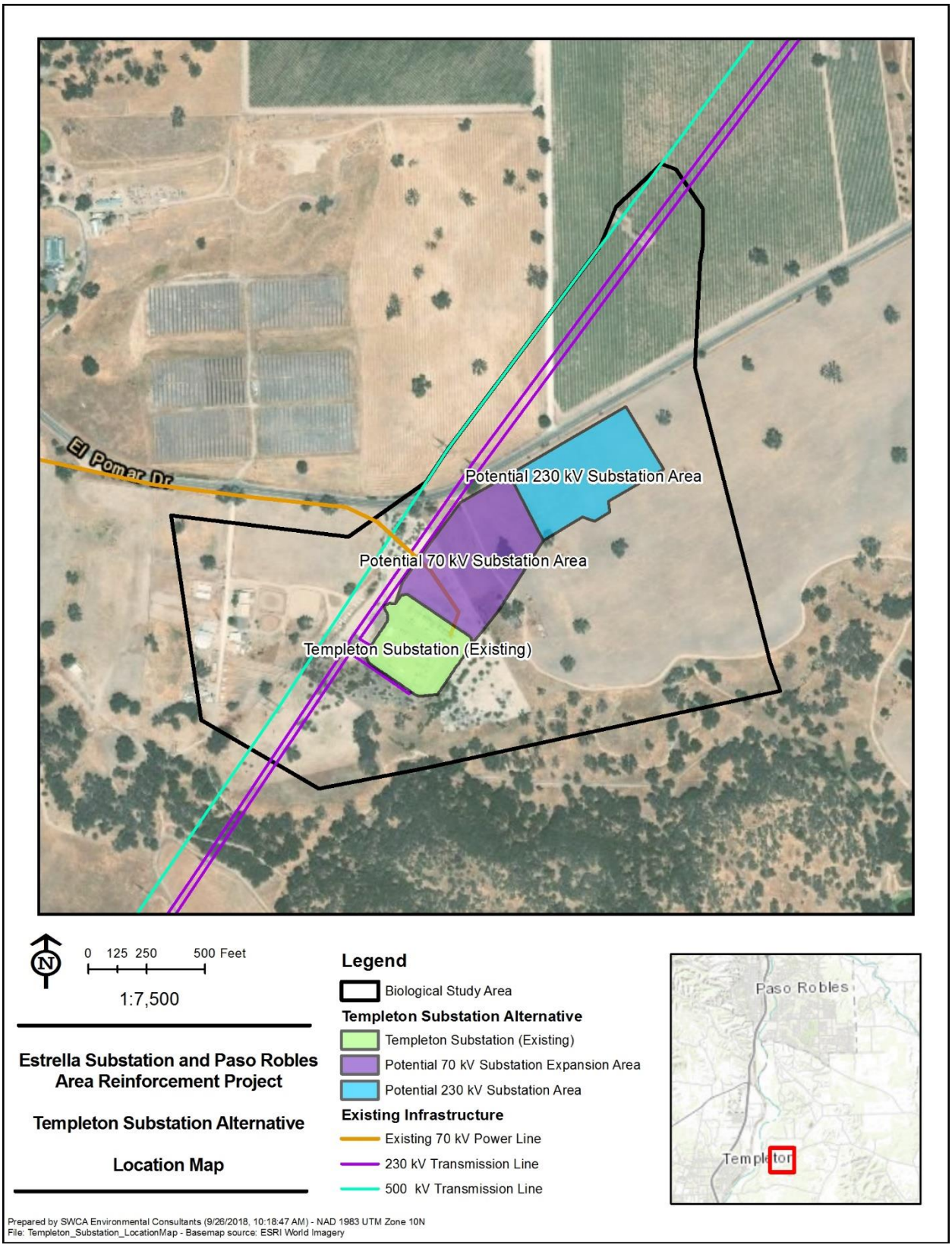


Figure 2. Location Map



2 REGULATORY BACKGROUND

2.1 Federal

2.1.1 Endangered Species Act

The federal Endangered Species Act (ESA) of 1973 (United States Code [U.S.C.] Title 16, Sections 1531–1544)*, as amended,* protects plants, fish, and wildlife that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). Section 9 of the ESA prohibits the "take" of listed fish and wildlife, where "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (Code of Federal Regulations [CFR] Title 50, Section 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant *under federal jurisdiction* and removing, cutting, digging up, damaging, or destroying any listed plant in knowing violation of state law (16 U.S.C. 1538).

The ESA allows for issuance of incidental take permits to private parties either in conjunction with a Habitat Conservation Plan (HCP) or as part of a Section 7 consultation (which is discussed in the following paragraph). Under Section 10 of the ESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the project area, identifying impacts to the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

Under Section 7 of the ESA, federal agencies are required to consult with USFWS and/or NOAA Fisheries, as applicable, if their actions—including permit approvals or funding—may affect a federally listed species (including plants) or designated critical habitat. If the project is likely to adversely affect a species, the federal agency will initiate formal consultation with USFWS and/or NOAA Fisheries and issue a biological opinion as to whether a proposed agency action(s) is likely to jeopardize the continued existence of a listed species (jeopardy) or adversely modify critical habitat (adverse modification). As part of the biological opinion, USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species or adversely modify designated critical habitat.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703–711) protects all migratory birds, including active nests and eggs. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example feathers and plumes), active nests, and eggs. A complete list of protected species can be found in 50 CFR 10.13. Enforcement of the provisions of the federal MBTA is the responsibility of USFWS. On April 11, 2018, the USFWS issued guidance on the recent M-Opinion affecting MBTA implementation (USFWS 2018d). The M-Opinion concludes that the take of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds. The USFWS interprets the M-Opinion to mean the MBTA prohibitions on take apply when the purpose of the action is to take migratory birds, their eggs, or their nests.

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 U.S.C. 668) specifically protects bald and golden eagles and their nests from intentional harm or trade in parts of these species. The 1972 amendments increased penalties for violating provisions of the BGEPA or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the BGEPA.

2.1.4 Clean Water Act

2.1.4.1 WATERS AND WETLANDS: CLEAN WATER ACT SECTIONS 401 AND 404

The purpose of the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Waters of the United States include rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3).

The U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE) have recently released a new rule that would revise this definition and clarify which bodies of water are covered by the CWA. However, on October 9, 2015, the U.S. Court of Appeals for the 6th Circuit granted a nationwide stay on the rule, and the previous interpretations and guidance remain in effect until further notice.

USACE issues permits for work in wetlands and other waters of the United States based on guidelines established under Section 404 of the CWA. Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. USEPA also has authority over wetlands and may, under Section 404(c), veto a USACE permit.

Section 401 of the CWA requires all Section 404 permit actions to obtain a state Water Quality Certification or waiver.

2.2 State

2.2.1 California Endangered Species Act

Sections 2050–2098 of the California Fish and Game Code (the California Endangered Species Act [CESA]) prohibit the take of state listed endangered and threatened species unless specifically authorized by the California Department of Fish and Wildlife (CDFW). The state definition of "take" is to hunt, pursue, catch, capture, or kill a member of a listed species or attempt to do so. CDFW administers the CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of the CESA, or through a consistency determination issued under Section 2080.1. CESA Section 2090 requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

2.2.2 Fully Protected Species Under the California Fish and Game Code

The California Fish and Game Code designates certain fish and wildlife species as "fully protected" under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). Fully protected species may not be taken or possessed at any time unless authorized by CDFW under a Natural Community Conservation Plan (NCCP) (CDFW 2018e). San Luis Obispo County does not have a NCCP (CDFW 2018f); therefore, no permits may be issued for incidental take of these species.

2.2.3 Protection for Birds Under the California Fish and Game Code

California Fish and Game Code Section 3503 et seq. state 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. Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird.

2.2.4 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900–1913) includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the NPPA and generally regards as rare many plant species included on California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California. In addition, sometimes CRPR 3 and 4 plants are considered if the population has local significance in the area and is impacted by the project.

Section 1913(b) of the California Fish and Game Code includes a specific provision to allow for the incidental removal of endangered or rare plant species, if not otherwise salvaged by CDFW, within a right-of-way to allow a public utility to fulfill its obligation to provide service to the public.

2.2.5 California Species of Special Concern

Species of Special Concern (SSC) is a category conferred by CDFW to fish and wildlife species that meet the state definition of threatened or endangered, but have not been formally listed (e.g., federally or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. SSC is an administrative classification only, but these species should be considered "special-status" for the purposes of the California Environmental Quality Act (CEQA) analysis (see the Significance Criteria section of this document).

2.2.6 Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas. SWRCB or the applicable RWQCB must issue waste discharge requirements for any activity that discharges waste that could affect the quality of waters of the state.

2.2.7 Lake and Streambed Alteration Agreement Under the California Fish and Game Code

In addition to listed and special-status species, CDFW regulates activities under California Fish and Game Code Sections 1600–1616 that require a streambed alteration agreement permit. Section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake.
- Substantially change or use any material from the bed, channel, or bank of any river, stream, or lake.
- Deposit debris, waste, or other materials that could pass into any river, stream, or lake.

2.3 Local

This section includes a summary of local or regional plans, policies, or regulations that identify sensitive or special-status species in the area of the substation alternative, as well as local polices or ordinances that protect biological resources. Because CPUC has exclusive jurisdiction over the siting, design, and

construction of the project, the project is not subject to local discretionary regulations related to biological resources. The following summary is provided for informational purposes and to assist with CEQA review.

2.3.1 County of San Luis Obispo General Plan

The County of San Luis Obispo General Plan includes a Conservation and Open Space Element (COSE), which addresses the protection and management of natural resources, as well as goals, policies, and strategies to conserve, protect, and restore biodiversity and open space (County of San Luis Obispo 2010). The COSE includes seven goals and policies within those goals. Specific goals pertaining to biological resources identified in the COSE include:

- **Goal BR 1** Native habitat and biodiversity will be protected, restored, and enhanced;
- **Goal BR 2** Threatened, rare, endangered, and sensitive species will be protected;
- **Goal BR 3** Maintain the acreage of native woodlands, forests, and trees at 2008 levels;
- **Goal BR 4** The natural structure and function of streams and riparian habitat will be protected and restored;
- **Goal BR 5** Wetlands will be preserved, enhanced, and restored;
- **Goal BR 6** The County's fisheries and aquatic habitats will be preserved and improved; and
- **Goal BR 7** Significant marine resources will be protected.

2.3.2 County of San Luis Obispo Oak Woodlands Management Plan

The Native Tree Committee of the County of San Luis Obispo (County) has established an Oak Woodland Management Plan to encourage the long-term conservation of oak woodlands. The plan is voluntary and for informational purposes only and is not bound by the law. The plan discusses the status, economic values, natural resource values, and aesthetic and open space values of oak woodlands. In addition, the plan offers the following conservation efforts: (1) design around existing oaks; (2) encourage clustered, denser developments; (3) encourage landscaping with oak trees/natives; (4) improve oak regeneration on grazed lands; and (5) purchase conservation easements (County of San Luis Obispo 2003).

2.3.3 County of San Luis Obispo San Joaquin Kit Fox Mitigation Requirements

The County evaluates impacts to San Joaquin kit fox (*Vulpes macrotis mutica*) for County-permitted projects to ensure impacts to kit fox are mitigated to an insignificant level under CEQA. CDFW and the County have developed mitigation measures to reduce impacts to San Joaquin kit fox habitat to an insignificant level. In addition, predetermined standard mitigation ratios have been developed for County-permitted projects located within kit fox habitat areas (County of San Luis Obispo 2006).

The substation alternative is located within a County-designated kit fox habitat area with recommended general measures and practices. The project proponents will take into consideration local policies and land use priorities and concerns as they relate to biological resources; however, the project is exempt from the County's discretionary permitting and mitigation and CPUC is the lead agency under CEQA.

3 METHODOLOGY

A biological resources study was conducted to support this BRTR using a literature review and field surveys to document the potential for biological resources to occur within the BSA.

3.1 Literature and Records Review

Biologists reviewed available regional and local natural resources information, including published and unpublished documents, publicly available data sets, and herbarium records. Database searches included the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles at and surrounding the substation alternative—Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Morro Bay North, Atascadero, and Santa Margarita (USGS 2018b). Resources reviewed with respect to site-specific information included, but were not limited to:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2018a)
- CDFW California Wildlife Habitat Relationship Systems (CDFW 2018c);
- CDFW Special Animals List (CDFW 2018d)
- CNPS Rare Plant Program Inventory of Rare and Endangered Plants (CNPS 2018);
- eBird: An online database of bird distribution and abundance [web application] (eBird 2018);
- *A Guide to the Amphibians and Reptiles of California* (California Herps 2000–2016);
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2018b);
- USFWS Critical Habitat Portal (USFWS 2018a);
- National Wetland Inventory (NWI) (USFWS 2018b);
- USFWS Species List (USFWS 2018c);
- USGS National Hydrography Dataset (USGS 2018a);
- USGS 7.5-minute series topographic quadrangle maps (USGS 2018b);
- Aerial imagery of the substation alternative location;
- *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for the 70 kV Power Line* (SWCA 2017a); and
- *Estrella Substation and Paso Robles Area Reinforcement Project: Biological Resources Technical Report for Estrella Substation* (SWCA 2017b).

Biological resources data were collected and overlaid on to geospatial maps from desktop and field sources to develop a Geographic Information Systems (GIS) database specific to the substation alternative. This was the first analysis level and it provided reviewers with essential sensitive species location data, preliminary habitat information, potential drainages, and other jurisdictional waters, and designated critical habitat for federally listed species. The data were compiled in ArcGIS Desktop and were subsequently uploaded to a Trimble® handheld global positioning system (GPS) unit for field verification.

3.2 Sensitive Biological Resources

Sensitive plants and animals are defined within this report to include species, subspecies, varieties, and populations recognized by USFWS and CDFW that are classified into the following categories:

- Species and subspecies listed or proposed for listing by the state of California as threatened or endangered pursuant to the CESA.
- Animals listed on the California Special Animals List as SSC and Fully Protected.

- Species, subspecies, and populations listed or proposed for listing as threatened or endangered pursuant to the federal ESA, and species that are candidates for such listings.

- Plants included in the Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2018b) as threatened, endangered, an SSC, or CRPR Rank 1 or 2.

In addition, natural communities recognized by CDFW as being of special concern were considered, along with riparian habitats and water bodies under the jurisdiction of USACE, CDFW, and/or RWQCB.

Throughout this document, species, subspecies, varieties, and populations are broadly referred to as "species," a term which is used here to indicate whichever pertinent taxonomic levels are recognized by the federal and state authorities with jurisdiction over plants and animals.

Species occurrences from the CDFW CNDDB RareFind5 (CDFW 2018a) and the CNPS Online Inventory of Rare and Endangered Plants (CNPS 2018) were queried for relevant sensitive species data. Records of sensitive plants, animals, and natural communities were queried within the Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Morro Bay North, Atascadero, and Santa Margarita USGS 7.5-minute quadrangles. Using the information generated from literature reviews and field surveys, the list of special-status species with the potential to occur was further refined to reflect the species that may occur within the BSA. The likelihood of special-status species occurrence was determined based on natural history parameters, including, but not limited to, the species' range, habitat, foraging needs, migration routes, and reproductive requirements. For the purpose of this study, potential for occurrence determinations were made using the following general categories:

- *Present*: Reconnaissance-level, focused, or protocol-level surveys documented the occurrence or observation of a species in the BSA.

- *Seasonally present*: Individuals were observed in the BSA only during certain times of the year.

- *Likely to occur*: The species has a strong likelihood to be found in the BSA prior to or during construction but has not been directly observed to date during surveys. The likelihood that a species may occur is based on the following considerations: suitable habitat that meets the life history requirements of the species is present in the BSA; migration routes or corridors are within the BSA; records of sighting are documented within or near (5 miles) the BSA; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that records of occurrence have been documented within or near (5 miles) the BSA, the BSA falls within the range of the species, suitable habitat is present, but it is undetermined whether the habitat is currently occupied.

- *Potential to occur*: There is a possibility that the species can be found in the BSA prior to or during construction, but has not been directly observed to date. The likelihood that a species may occur is based on the following conditions: suitable habitat that meets the life history requirements of the species is present within the BSA; migration routes or corridors are within the BSA; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that the BSA falls within the range of the species, suitable habitat is present, but no records of sighting are located within or near (5 miles) the BSA, or the records are old and unreliable and it is undetermined whether the habitat is currently occupied.

- *Unlikely to occur*: The species is not likely to occur in the BSA based on the following considerations: lack of suitable habitat and features that are required to satisfy the life history requirements of the species (e.g., absence of foraging habitat, lack of reproductive areas, and lack of sheltering areas); presence of barriers to migration/dispersal; presence of predators or invasive

species that inhibit survival or occupation (e.g., the presence of bullfrogs or invasive fishes); or lack of hibernacula, hibernation areas, or aestivation areas on site.

- *Absent*: Suitable habitat does not exist in the BSA, the species is restricted to or known to be present only within a specific area outside of the BSA, or focused or protocol-level surveys did not detect the species.

3.3 Biological Study Area

The BSA consists of the approximately 80-acre area consisting of the existing Templeton Substation, the potential 70 kV substation, the potential 230 kV substation, and surrounding habitat. The BSA was established to account for flexibility in siting the substation alternative. Field surveys focused on areas within the BSA (Figure 2), as described in Section 3.4, Field Surveys, below.

3.4 Field Surveys

Biologists conducted a general reconnaissance-level field survey on June 14, 2018. The survey included a plant and wildlife inventory, vegetation mapping, and a delineation of waters, wetlands, and riparian areas potentially subject to the jurisdiction of USACE, CDFW, and/or RWQCB. Vegetation communities were classified using *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Habitat was evaluated for potential to support those special-status species identified during the desktop review, and detailed notes and photographs were taken to support determinations of the potential for those species to occur within the BSA. Surveyors noted and recorded all wildlife species encountered through direct observation or sign (scat, remains, or tracks), and for birds by their species-specific vocalizations. The use of binoculars also facilitated wildlife identification, and trees and other structures (such as buildings) within the BSA were scanned for avian nests and roosting locations.

Botanical surveys were also conducted on July 14, 2018; March 21, 2019; and April 19 and 22, 2019. CDFW's *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFW 2009) was generally followed to facilitate a consistent and systematic approach to the survey and assessment of special-status native plants and natural communities so that reliable information was produced and the potential of locating a special-status plant species or natural community was maximized. The survey was conducted by walking transects throughout the BSA where suitable habitat was present to ensure thorough coverage. Every plant taxon that was observed in the BSA was identified to the taxonomic level necessary to determine rarity and listing status, although, in some instances, plants were collected and subsequently identified using dichotomous keys (Appendix A). The surveyors referred to *The Jepson Manual* (Baldwin et al. 2012) to verify plant identification. The botanical survey was conducted within the appropriate bloom period for species with the potential to occur in the BSA.

A handheld GPS unit capable of sub-meter accuracy was used to record locations of any sensitive resources and other potential constraints. A compiled list of all plant species observed during the surveys is included as Appendix A, and a compiled list of all wildlife species observed during the surveys is included as Appendix B.

Potentially jurisdictional waters of the State and United States were mapped at the desktop level using available data from NWI (USFWS 2018b) and USGS National Hydrography Dataset (USGS 2018a), and USGS topographic maps and aerial photographs. Field verification was conducted during the June 2018 field survey to refine the maps, and to determine what features met the criteria for jurisdiction by USACE, CDFW, and/or RWQCB. Potential hydrological conditions such as presence of hydrophytic vegetation, hydric soil indicators, ordinary high water marks (OHWMs), and/or defined bed and banks were

investigated. A formal jurisdictional delineation report has not been prepared as part of this study. Refer to Section 4.3.1, Jurisdictional Waters, below for additional detail regarding potentially jurisdictional waters within the BSA.

In addition, biologists conducted a high-level San Joaquin kit fox habitat suitability survey. The objective of this survey was to determine the presence (or absence) of suitable San Joaquin kit fox habitat within the BSA. The survey was conducted by walking transects spaced approximately 10 feet apart throughout the entire BSA. Biologists measured all small mammal burrows with 4-inch ball probes. Any small mammal burrows observed to be 4 inches or larger were mapped using a Trimble GPS unit. This survey protocol was developed based on information provided in the *U.S. Fish and Wildlife Service San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 1999), and based on the biologists' experience in conducting San Joaquin kit fox surveys.

3.5 Nomenclature Conventions

Vegetation alliance nomenclature in this report follows *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). Taxonomic conventions follow *The Jepson Manual: Higher Plants of California* (Baldwin et al. 2012) for plants, the American Ornithologists' Union (AOU) *Checklist of North and Middle American Birds* (AOU 2015) for birds, the *Complete List of Amphibian, Reptile, Bird and Mammal Species in California* (CDFW 2016) for other vertebrate wildlife, and the *Special Animals List* (CDFW 2018d) for invertebrates.

4 EXISTING CONDITIONS

The substation alternative BSA is located approximately 14 miles northeast of the Pacific Ocean and situated between the Temblor Range and the Santa Lucia Coastal Range, at the southern end of the Salinas River Valley. The BSA is located in unincorporated San Luis Obispo County, and the existing Templeton Substation is approximately 1.5 miles northeast of the community of Templeton, and approximately 4 miles south of the city of Paso Robles. Topography within the BSA is slightly sloping (<5%) from northeast to southwest with elevation ranging between approximately 700 and 850 feet.

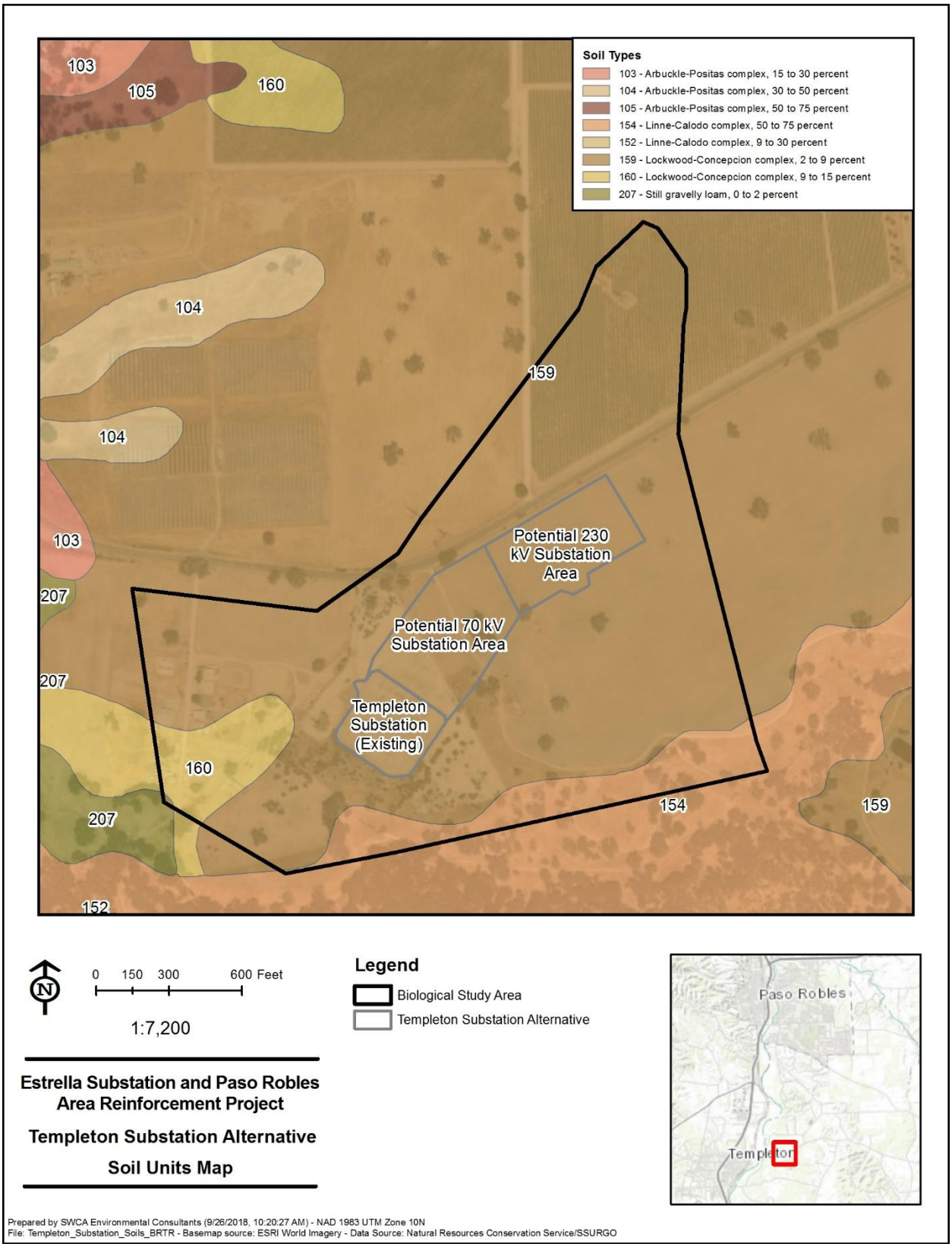
San Luis Obispo County has a Mediterranean climate with warm to hot, dry summers and mild to cool, wet winters. The coastal climate is generally mild with average temperatures ranging from 45 to 70 degrees Fahrenheit (°F). Inland temperatures are much more variable with average temperatures ranging from 35 to 93°F. Precipitation in the region also varies spatially and temporally with increasing precipitation typically occurring near the coast. Average annual rainfall in the vicinity of the substation alternative is 15.2 inches with approximately 90% of the rain falling between October and April. Average monthly rainfall in the summer months is significantly lower than the winter months only averaging about 0.2 inches per month between May and September. The above temperature and precipitation data is based on Monthly Climate Normals data published by the National Oceanic and Atmospheric Administration (NOAA) from the Paso Robles, California climate station (COOP:046730), located approximately 4 miles north of the substation alternative, for the period between 1981 and 2000 (NOAA 2018).

4.1 Soils

Soil type descriptions were queried using Official Soil Series Descriptions (OSDs). Site-specific soil data was queried using the USDA Web Soil Survey database (NRCS 2018b). Soil types within the BSA include the following (Figure 3):

- Linne-Calodo complex, 50 to 75 percent slopes
- Lockwood shaly loam, 2 to 9 percent slopes

Figure 3. Soil Units Map



- Lockwood-Concepcion complex, 9 to 15 percent slopes
- Still gravelly loam, 0 to 2 percent slopes

Linne-Calodo soils consist of moderately deep, well-drained soils that formed in material weathered from sandstone and shale. These soils make up approximately 6.50 acres, roughly 8%, of the BSA. These soils occur on uplands at elevations of 100 to 2,200 feet and have slopes of 5 to 75 percent. These soils typically occur in dry, subhumid, mesothermal climates with warm dry summers and cool moist winters. Vegetation communities associated with this soil type are annual grasses and forbs, a few scattered oak, and some brush. These soil types are typically used for grain crops, related crops, and almonds (NRCS 2018a).

The Lockwood soils consists of very deep, well-drained soils with moderately slow permeability that formed in alluvial material from dominantly siliceous shales. These soils make up approximately 73.83 acres, roughly 87%, of the BSA. These soils occur on uplands at elevations of 100 to 2,000 feet and have slopes of 5 to 75 percent. These soils typically occur in dry, subhumid, mesothermal climates with warm dry summers and cool moist winters. Vegetation communities associated with this soil type are annual grasses and forbs, coastal sage and some live oaks. These soil types are used for growing irrigated row crops, truck crops, truck crops, alfalfa, some orchards, and extensive areas (NRCS 2018a).

The Still soils consists of deep, well drained soils that formed in alluvial material from sedimentary rocks on flood plains and alluvial fans. These soils make up approximately 0.03 acres, less than 1% of the BSA. These soils occur on uplands at elevations of 600 to 2,000 feet and have slopes of 0 to 30 percent. These soils typically occur in dry, subhumid, mesothermal climates with warm dry summers and cool moist winters. Vegetation communities associated with this soil type are mainly annual grasses with scattered oaks. The soil is used for cultivated alfalfa, sugar beets, and dry-farmed grain (NRCS 2018a).

4.2 Habitats and Natural Communities

4.2.1 Critical Habitat

There is no federally designated critical habitat for ESA-listed species within or immediately adjacent to the BSA (USFWS 2018a). The nearest critical habitat to the BSA is for the federally threatened steelhead (*Oncorhynchus mykiss*; Evolutionary Significant Unit [ESU] for South-Central California Coast steelhead in Salinas Hydrologic Unit 3309, Paso Robles Hydrologic Sub-area 330981), which occurs along the Salinas River approximately 0.5 mile west of the substation alternative (Figure 4). No steelhead critical habitat or physical or biological features (USFWS 2016) required to support this species occur within the BSA.

4.2.2 Vegetation Communities

The landscape within the BSA consists of agricultural, ruderal, urban/developed, nonnative grasslands, and blue oak woodlands habitats. The landscape within the BSA has largely been modified and subject to disturbance associated with rural developments, agricultural production, habitat modification (e.g., disking and mowing), and other human-related disturbances. No sensitive natural community as defined by CDFW was observed. Figure 5 illustrates the vegetation communities occurring within the BSA.

4.2.2.1 AGRICULTURAL

Agricultural habitat is identified by active cultivation and planting of crops in an area. The BSA comprises approximately 11 acres of agriculture, primarily consisting of grape vineyards. The understory within the vineyards consisted of bare soils with sparsely vegetated nonnative and native annual grasses and forbs.

Figure 4. Critical Habitat Map

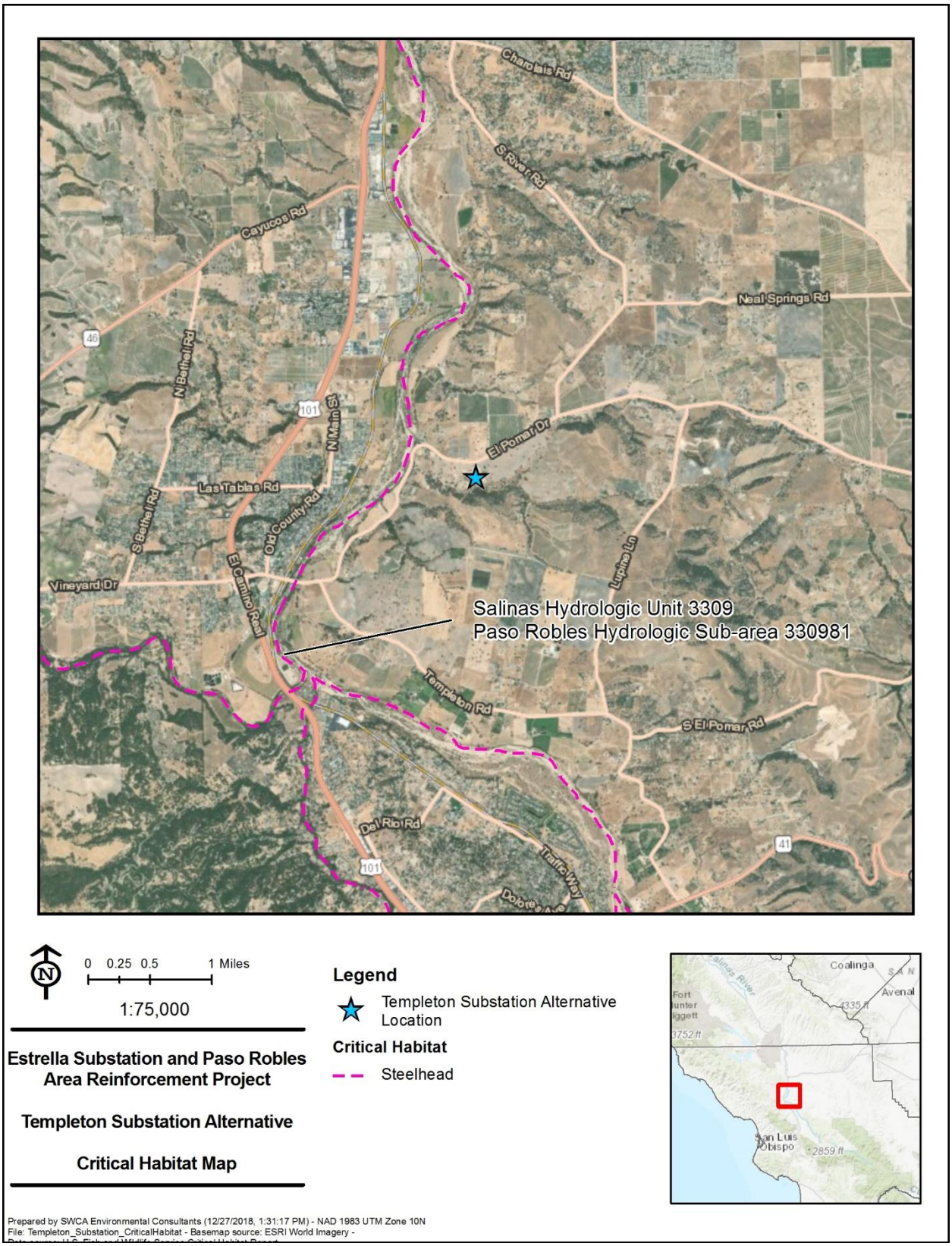
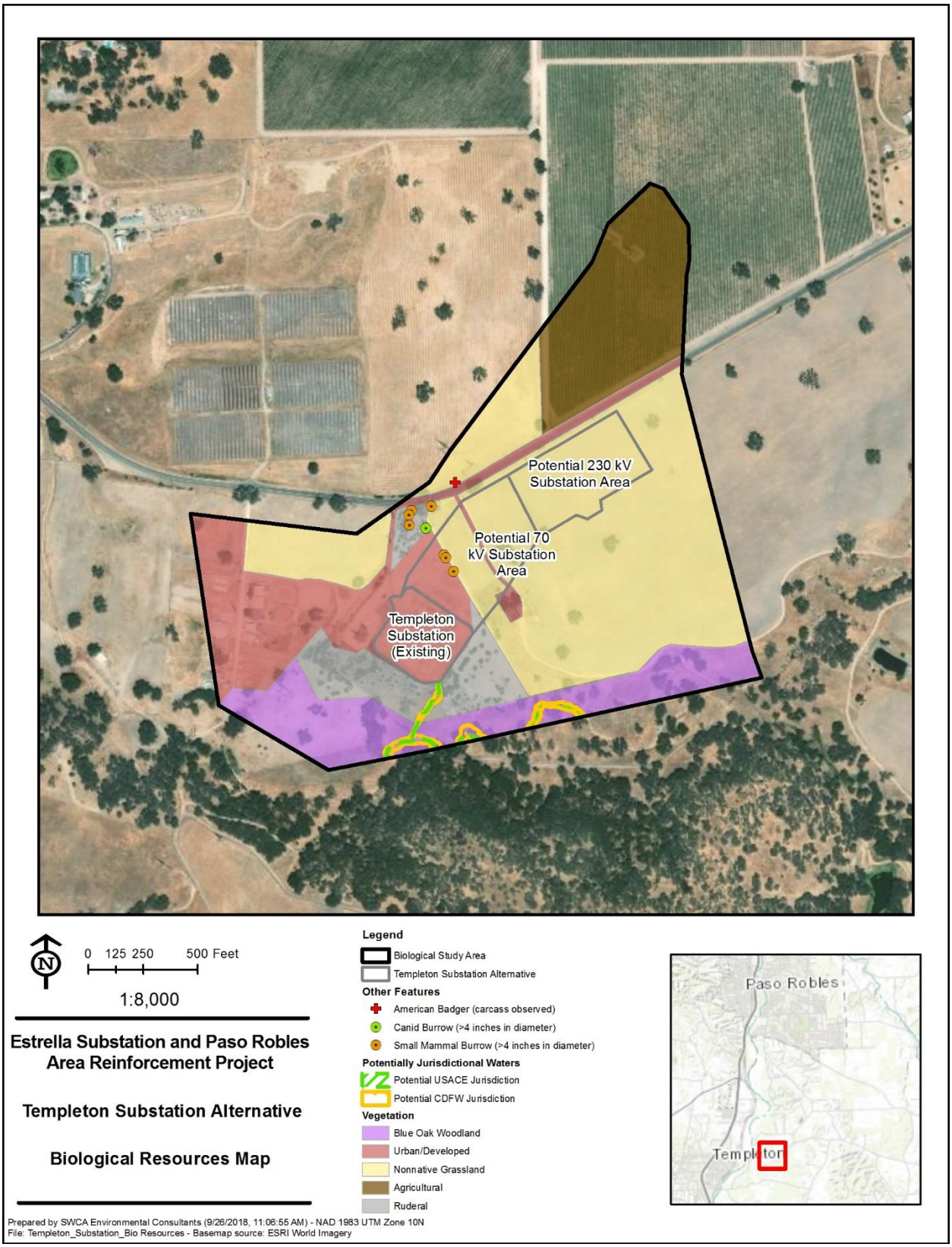


Figure 5. Biological Resources Map



4.2.2.2 BLUE OAK WOODLAND

Blue oak woodlands are typically dominated by blue oak (*Quercus douglasii*) trees, yet often include other oak species, such as valley oak (*Quercus lobata*) and gray pine (*Pinus sabiana*). Blue oak woodlands range from open savannas to dense woodlands, and often contain an understory of grasses and herbs. This habitat type usually contains well-drained soils and occurs below 4,000 feet (Holland 1986).

The BSA comprises approximately 11 acres of blue oak woodlands, and occurs primarily along the ephemeral drainage feature located approximately 300 feet south of the substation alternative (Figure 6).

4.2.2.3 NONNATIVE GRASSLAND

Nonnative grasslands consist of dense to sparse cover of annual grasses generally less than 1 meter high and are dominated by nonnative grasses and forbs, including soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), slender wild oats (*Avena barbata*), cheatgrass (*Bromus tectorum*), red brome (*Bromus madritensis*), red-stemmed filaree (*Erodium cicutarium*), and short-pod mustard (*Hirschfeldia incana*). Native species may include western ragweed (*Ambrosia psilostachya*), lupines (*Lupinus* spp.), and doveweed (*Croton setigerus*) (Holland 1986).

The BSA comprises approximately 37 acres of nonnative grassland habitat, approximately half of the entire BSA. This vegetation community occurs north and east of the substation alternative site. Sparsely scattered blue oak, coast live oak (*Quercus agrifolia*), and valley oak trees were interspersed in the grassland areas in the BSA. During the June 2018 field survey, the grassland habitat within the potential 70 kV and potential 230 kV substation sites (approximately 30 acres) had been recently disked, and the grassland area northwest of the existing Templeton Substation showed signs of recent tilling.

4.2.2.4 RUDERAL

Ruderal habitat areas are often defined as occurring along road edges and other highly disturbed areas. Typically, species dominating ruderal habitat areas are able to quickly colonize disturbed areas due to their high rates of seed dispersal and fast growth. Ruderal areas are typically dominated by nonnative vegetation, but some native species can also occur.

The BSA comprises approximately 7 acres of ruderal habitat, occurring primarily along the southern perimeter of the existing Templeton Substation. Species observed in ruderal areas in the BSA included but were not limited to nonnative annual grasses, mustard (*Brassica spp*.), and various thistles.

4.2.2.5 URBAN/DEVELOPED

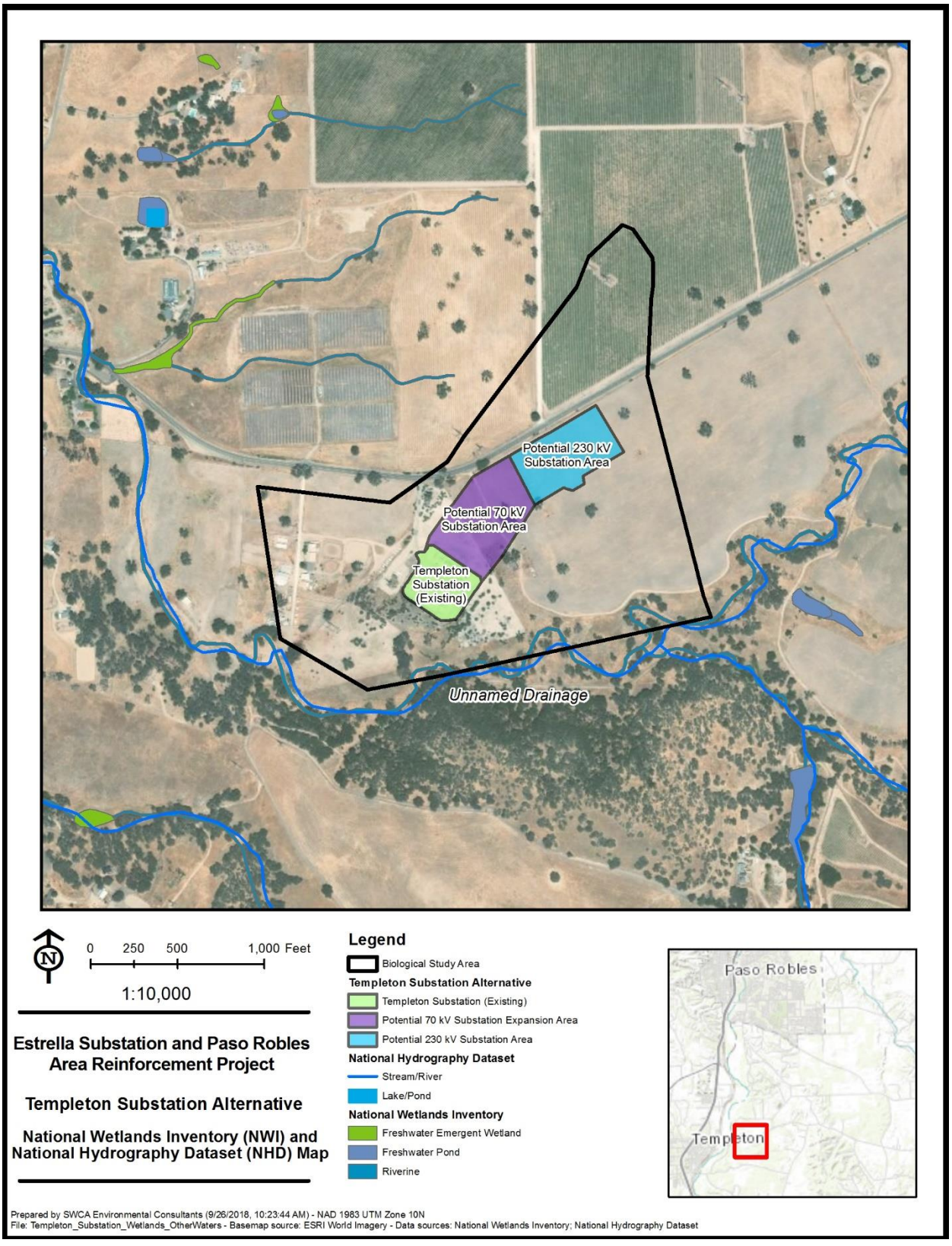
Urban/developed habitat is found in regularly and highly disturbed areas, including areas that have been developed and/or include landscaping such as trees, shrubs, ornamental plants, and lawns. Vegetation density, canopy cover, and species composition will vary based on the structure and composition of the developed area. Vegetation may include native or exotic species, or a combination of both.

The BSA comprises approximately 16 acres of urban/developed lands, including the existing Templeton Substation, El Pomar Road, and rural residential developments.

4.3 Drainages and Water Features

The substation alternative BSA is located within the Paso Robles Creek-Salinas River watershed. The central drainage feature in this watershed is the Salinas River. The Salinas River flows north-northwest through the Salinas Valley, bisecting the Coast Ranges, before draining into the Pacific Ocean nearly 100

Figure 6. National Wetland Inventory (NWI) and National Hydrography Dataset (NHD) Map



miles northwest of the substation alternative. The BSA is located approximately 0.5 mile east of the Salinas River riparian corridor.

A concrete-lined stormwater detention basin is located within the existing Templeton Substation. This manmade feature collects stormwater runoff from the substation site and drains into a culvert along the south side of the substation. From here, it enters into a steeply eroded drainage feature and drains generally south for approximately 90 feet before entering an unnamed ephemeral drainage. The unnamed ephemeral drainage flows west and enters into the Salinas River approximately 0.5 mile downstream. The unnamed ephemeral drainage is fed by several other ephemeral drainage channels to the east and south. This feature may serve as a wildlife migration corridor for dispersal of species between local areas and at larger scales between regions.

Hydrological indicators (i.e., OHWM and top of bank) observed within the steeply eroded drainage feature and unnamed ephemeral drainage feature were preliminarily mapped during the June 2018 field survey. These drainage features may be considered jurisdictional by USACE, CDFW, and/or RWQCB based on the presence of a defined bed and bank, OHWM, and connection to downstream waters of the United States. A formal jurisdictional delineation report has not been prepared for this alternative analysis. Refer to Figure 5 for potentially jurisdictional waters of the State and United States that were mapped during the June 2018 field survey, and Figure 6 for potential jurisdictional waters identified by NWI and the National Hydrography Dataset (NHD) inventories.

4.4 Sensitive Species

All species identified during the literature review were evaluated for their potential to occur within the BSA. Biologists examined these records and made determinations during the June 2018 field survey. All plants and wildlife encountered during field survey were recorded. A complete list of plant and animal species observed is located in Appendices A and B.

4.4.1 Special-Status Plants

Biologists and botanists queried the CNDDB and CNPS databases to review recent accounts of special-status plants within the nine USGS 7.5-minute topographic quadrangles at and surrounding the substation alternative site. Local expert botanist Dave Keil, Ph.D., also provided expertise regarding special-status species that were historically recorded in the region (D. Keil, personal communication, June 3, 2016). Based on the preliminary review, biologists and botanists compiled a list of special-status plants, as defined by the *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFW 2009), that were likely to occur in the BSA based on site-specific conditions (soils, geology, topography, elevation, and associated plant communities). Biologists then conducted a botanical survey in June 2018, which was floristic in nature, identifying each plant to the taxonomic level.

No special-status plant species were observed in the BSA during the June 2018 survey. Sixty-three special-status plant species (CDFW 2018a) and one sensitive community (valley oak woodland) have occurrence records within the nine USGS 7.5-minute topographic quadrangles (USGS 2018b) at and surrounding the BSA. Valley oak woodland records were limited to the USGS 7.5-minute Adelaida quadrangle, and do not occur within the BSA (CDFW 2018a). Three federal- and/or state-listed species—San Luis Obispo fountain thistle (*Cirsium fontinale* var. *obispoense*), spreading navarretia (*Navarretia fossalis*), and California seablite (*Suaeda californica*)—were identified in the records search; however, either the BSA is located outside of their known range, suitable soil types were absent, or the species records were outdated with no known occurrences in the region. These species were therefore determined absent from the BSA. No other federal- or state-listed species were returned in the records search.

Due to site-specific conditions, it was determined that five CNPS-listed species have the potential to occur or are likely to occur within the BSA (Table 1), and are discussed below. Eight additional CNPS-listed species were determined to be unlikely to occur in the BSA, including Douglas' spineflower (*Chorizanthe douglasii*), straight-awned spineflower (*Chorizanthe rectispina*), yellow-flowered eriastrum (*Eriastrum luteum*), Mesa horkelia (*Horkelia cuneata* var. *puberula*), pale-yellow layia (*Layia heterotricha*), Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *Involucratus*), shining navarretia (*Navarretia nigelliformis* ssp. *radians*), and most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*). Determinations were based on the absence of suitable habitat and features required to satisfy the life history requirements of the species (i.e., habitat associations and soil type). The remaining 47 CNPS-listed plants were determined to be absent from the BSA because either suitable habitat does not exist, or the species is restricted to or known to be present only within a specific area outside of the BSA. Special-status plant species occurrences recorded in the CNDDB (CDFW 2018a) are depicted in Figure 7.

Table 1. Sensitive Plant Species Potential for Occurrence within the BSA

Common Name *Scientific Name*[1]	Status Federal/ State/ CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
dwarf calycadenia *Calycadenia villosa*	--/--/ CRPR 1B.1	Annual herb that occurs in chaparral, valley grassland, and foothill woodlands. Associated with dry, rocky hills, and ridges. Blooming period: May–October. Elevation: 240–1,350 meters.	**Potential to occur.** Grassland and blue oak woodlands may provide habitat. No CNDDB occurrences have been recorded within 5 miles of the BSA. Species not observed in the BSA during surveys conducted in the appropriate season.
San Luis Obispo owl's-clover* *Castilleja densiflora* var. *Obispoensis*	--/--/ CRPR 1B.2	Annual herb that occurs in meadows, seeps, and valley and grassland. Sometimes serpentinite. Blooming period: March–June. Elevation: 10–430 meters.	**Likely to occur.** Nonnative grasslands within the BSA may provide suitable habitat for this species. One CNDDB occurrence (2005) was recorded 3.85 miles northeast from the BSA. Species not observed in the BSA during surveys conducted in the appropriate season.
Lemmon's jewelflower* *Caulanthus lemmonii*	--/--/CRPR 1B.2	Annual herb that occurs in grassland, chaparral, and scrub habitat. Blooming period: February–May. Elevation: 80–1,580 meters.	**Potential to occur.** Nonnative grassland may provide suitable habitat. Two CNDDB occurrences have been recorded (1957 and 1960) 2 miles east of Paso Robles (exact locations unknown). Species not observed in the BSA during surveys conducted outside the appropriate season.

Common Name *Scientific Name*[1]	Status Federal/ State/ CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
Santa Lucia dwarf rush* *Juncus luciensis*	--/--/CRPR 1B.2	Annual grass-like herb that grows in wet, sandy soils of seeps, meadows, vernal pools, streams, and roadsides. Blooming period: April–August. Elevation: 300–2,040 meters.	**Potential to occur.** Roadside drainages within BSA may provide habitat for this species. One CNDDB occurrence (1958) was recorded 1 mile northeast of the BSA. Species not observed in the BSA during surveys conducted in the appropriate season.
woodland woollythreads* *Monolopia gracilens*	--/--/CRPR 1B.2	Annual herb that occurs often in serpentine grassland, open chaparral, and oak woodland. Blooming period: February–July. Elevation: 100–1,200 meters.	**Potential to occur.** Nonnative grassland and blue oak woodlands may provide suitable habitat. One CNDDB occurrence (1957) was recorded 3.87 miles northwest of the BSA. Species not observed in the BSA during surveys conducted in the appropriate season.

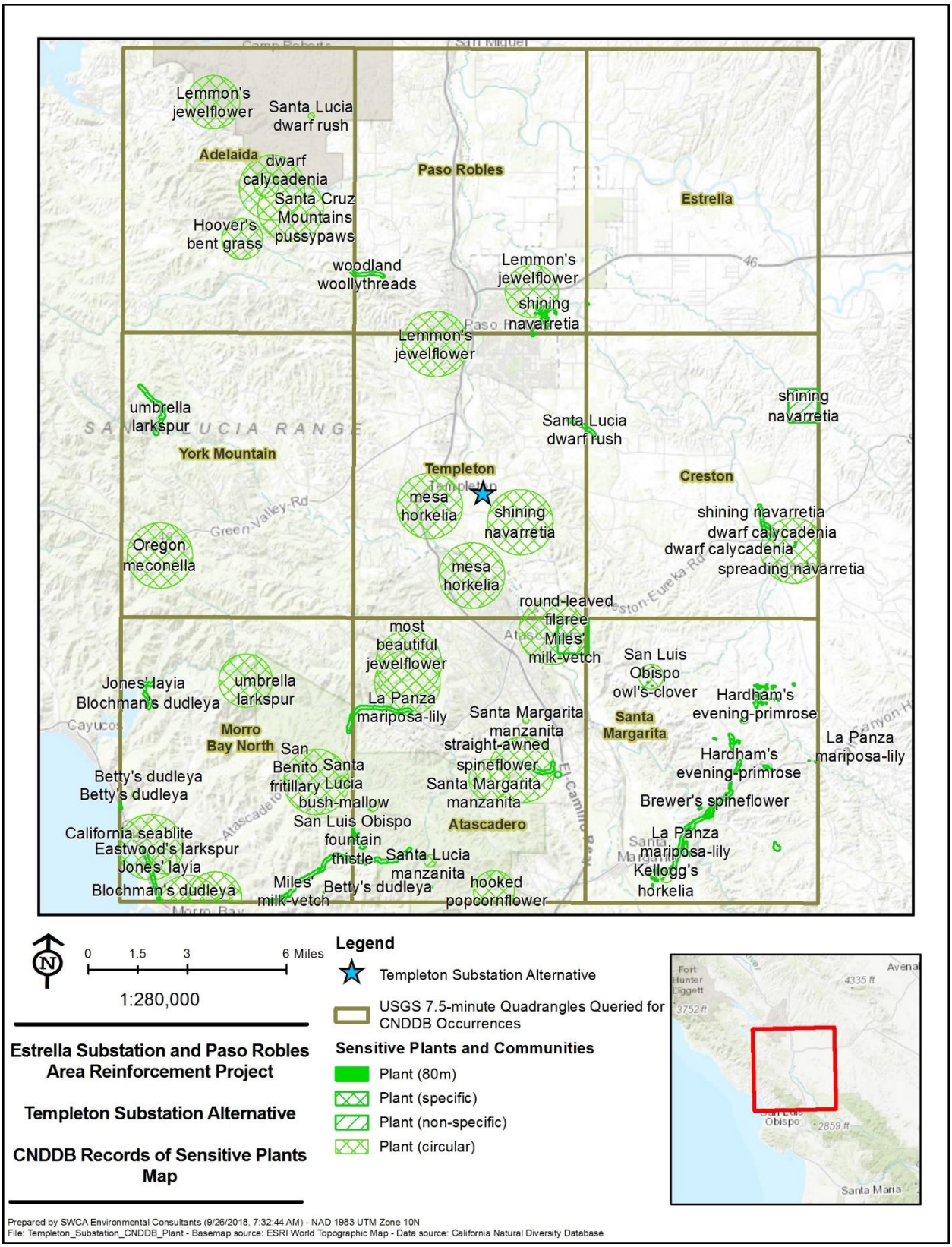
[1] List of plant species based on CNPS and CNDDB searches of USGS 7.5-minute quadrangles—Adelaida, Paso Robles, Estrella, York Mountain, Templeton, Creston, Morro Bay North, Atascadero, and Santa Margarita.
[2] Listing status based on 2018 CNDDB and CNPS data.
[3] Habitat associations and blooming periods based on the Jepson Online Interchange for California Floristics (queried in April 2018).
*CNDDB occurrences recorded within 5 miles of the substation alternative.

Status Codes
-- = No status
FE = Federally listed endangered, FT = Federally listed threatened,
FC = Federal candidate for listing
SE = California state-listed endangered
ST = California state-listed threatened
SCE = California candidate endangered

California Rare Plant Ranking:
1A = Plants presumed extirpated in California and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in California, but common elsewhere
2B = Plants rare, threatened, or endangered in California, but more common elsewhere

CRPR Threat Ranks:
0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
0.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat)

Figure 7. CNDDB Records of Sensitive Plants Map



4.4.1.1 DWARF CALYCADENIA

Dwarf calycadenia (*Calycadenia villosa*) typically occurs on rocky, dry hills, ridges, grasslands, and openings in foothill woodlands. This habitat was observed in the BSA, but no CNDDB occurrences have been recorded within 5 miles of the BSA. Therefore, it was determined this species has the potential to occur. This species was not observed within the BSA during surveys conducted in the appropriate season.

4.4.1.2 SAN LUIS OBISPO OWL'S-CLOVER

San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis)* is known to occur in grassland areas such as those observed in the BSA. One CNDDB occurrence was recorded in 2005 within 5 miles of the BSA; therefore, this species was determined as likely to occur. This species was not observed in the BSA during surveys conducted in the appropriate season.

4.4.1.3 LEMMON'S JEWELFLOWER

Lemmon's jewelflower (*Caulanthus lemmonii*) is known to occur in grassland, chaparral, and scrub habitat. Suitable grassland habitat was observed in the BSA, and two outdated (1957 and 1960) CNDDB occurrences have been recorded within 5 miles of the BSA. It was determined this species has the potential to occur. This species was not observed in the BSA; however, the botanical survey was conducted outside the appropriate blooming period.

4.4.1.4 SANTA LUCIA DWARF RUSH

Santa Lucia dwarf rush (*Juncus luciensis*) is known to occur in vernal pools, streams, and along roadsides. Roadside drainages were observed in the BSA, and one outdated (1958) CNDDB occurrence was recorded approximately 1 mile northeast of the BSA. Therefore, it was determined this species has potential to occur. This species was not observed within the BSA during surveys conducted in the appropriate season.

4.4.1.5 WOODLAND WOOLLYTHREADS

Woodland woollythreads (*Monolopia gracilens*) is known to occur often in serpentine grassland, open chaparral, and oak woodland. Suitable blue oak woodland was observed in the BSA, and one outdated (1957) CNDDB occurrence was recorded within 5 miles of the BSA. It was determined this species has potential to occur. This species was not observed in the BSA during surveys conducted in the appropriate season.

4.4.2 Special-Status Animals

Biologists conducted reconnaissance-level surveys within the BSA on June 14, 2018, to assess the potential for special-status wildlife, including those listed by federal and state agencies and others based on available data. The data evaluated included USFWS and CNDDB Species List databases, as well as published and unpublished technical reports and peer-reviewed literature. The reconnaissance-level survey included documentation of animals, vegetation communities, and land cover types. Habitat was evaluated for potential to support those special-status species identified during the desktop review, and detailed notes and photographs (Appendix C) were taken to support determinations of the potential for those species to occur within the BSA. The BSA was examined for presence or signs of occupation by special-status species (e.g., footprints, scat, feathers, or burrows) and auditory information (e.g., specific vocalizations of birds). Binoculars were also used to facilitate identification of species. A complete list of wildlife identified during the surveys is located in Appendix B, Fauna Compendium.

Thirty-four special-status animal species (CDFW 2018a) have occurrence records within the nine USGS 7.5-minute topographic quadrangles (USGS 2018b) at and surrounding the BSA. One special-status

animal—American badger (*Taxidea taxus;* a CDFW SSC)—was observed in the BSA. The desktop review, literature research, and field investigation concluded that eight additional special-status wildlife species, including three federal- and/or state-listed species and three CDFW fully protected species, have potential to occur or are likely to occur in the BSA. These species are discussed in more detail below.

Four additional species were determined unlikely to occur in the BSA, including northern California legless lizard (*Anniella pulchra*), Salinas pocket mouse (*Perognathus inornatus psammophilus*), coast horned lizard (*Phrynosoma blainvillii*), and least Bell's vireo (*Vireo bellii pusillus*). Determinations were based on the absence of suitable habitat and features required to satisfy the life history requirements of the species (e.g., absence of foraging habitat, lack of reproductive areas, and lack of sheltering areas); presence of barriers to migration/dispersal; presence of predators or invasive species that inhibit survival or occupation (e.g., the presence of bullfrogs or invasive fishes); or lack of hibernacula, hibernation areas, or aestivation areas on site. Special-status wildlife species occurrences recorded in the CNDDB (CDFW 2018a) are depicted in Figure 8.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA

Common Name *Scientific Name*[1]	Status Federal/ State/Other [2]	Habitat Associations[3]	Likelihood to Occur in the BSA
AMPHIBIANS			
California red-legged frog* *Rana draytonii*	FT/--/SSC	Occurs in semi-permanent or permanent water at least 0.5 meters deep, bordered by emergent or riparian vegetation and upland grassland, forest, or scrub habitats for refugia and dispersal.	**Potential to occur.** Suitable ephemeral, non-breeding aquatic habitat as well as upland habitat are present in the BSA. Two recent CNDDB occurrences were recorded within 2 miles of the BSA (2003 in Paso Robles Creek and 2016 in Graves Creek).
BIRDS			
golden eagle *Aquila chrysaetos*	--/--/FP; MBTA; BGEPA	Requires broad expanses of open country for foraging, while nesting primarily occurs in rugged mountainous areas with large trees or on cliffs.	**Likely to occur.** Foraging and nesting habitat is present in and adjacent of the BSA. No CNDDB occurrences have been recorded within 5 miles of the BSA; however, multiple sightings have been recorded within 2 miles of the BSA between 2014 and 2018 (eBird 2018).
grasshopper sparrow *Ammodramus savannarum*	--/--/SSC; MBTA	An uncommon and local, summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada. Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs.	**Potential to occur.** Foraging habitat is present in the oak woodlands within and adjacent to the BSA. No CNDDB occurrences have been recorded within 5 miles of the BSA; however, the site is within species' summer range.

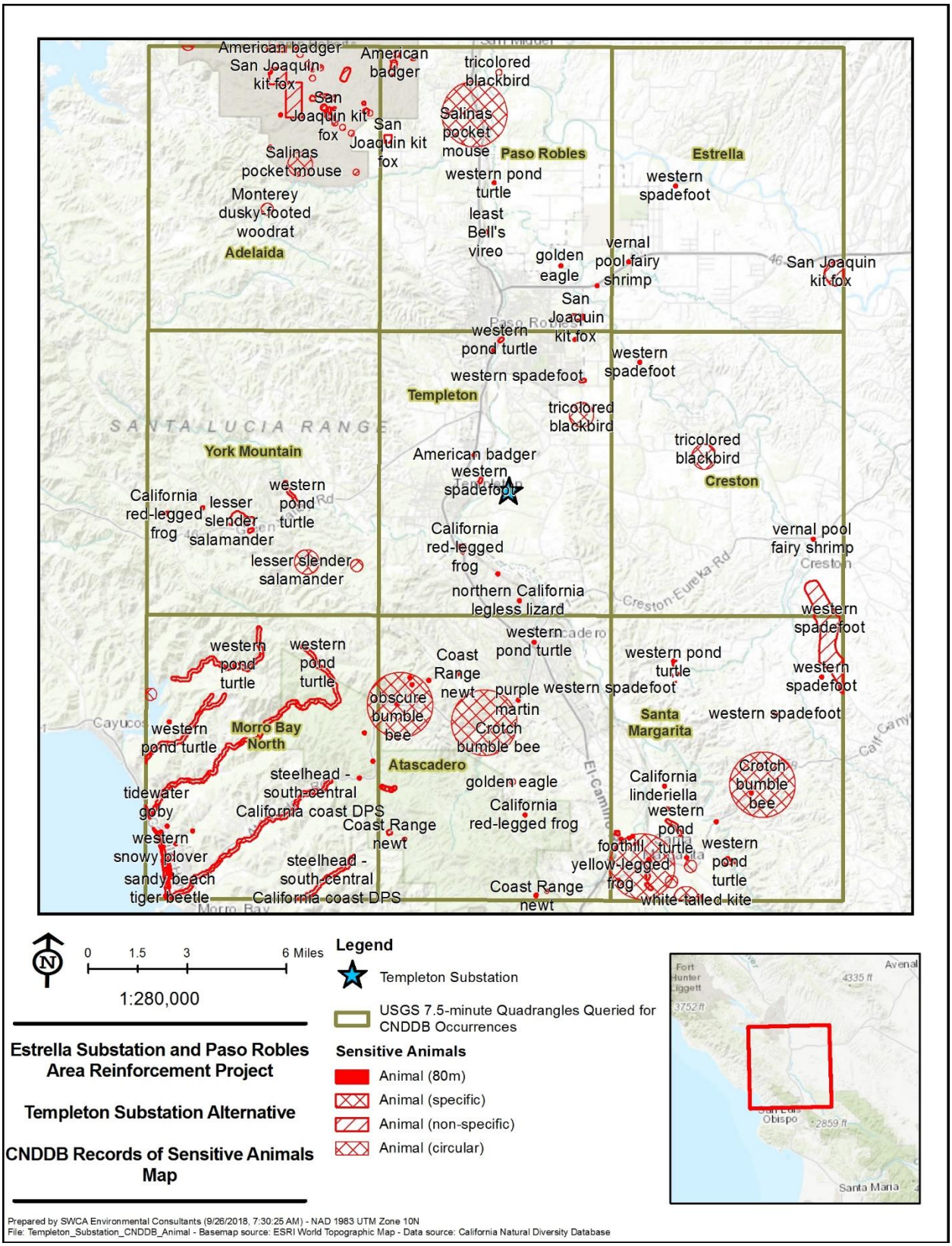
Common Name *Scientific Name*[1]	Status Federal/ State/Other [2]	Habitat Associations[3]	Likelihood to Occur in the BSA
white-tailed kite *Elanus leucurus*	--/--/FP; MBTA	Yearlong resident in coastal and valley lowlands; rarely away from agricultural areas. Inhabits herbaceous and open-staged moist habitats mostly in cismontane areas.	**Potential to occur.** Foraging habitat is present in and adjacent of the BSA. No CNDDB occurrences have been recorded within 5 miles of the BSA; however, multiple sightings have been recorded within 2 miles of the BSA between 2008 and 2018 (eBird 2018).
bald eagle *Haliaeetus leucocephalus*	DL/SE/FP; MBTA; BGEPA	Roosts communally in winter in dense, sheltered, remote conifer stands. Nests in large, old growth, or dominant live trees close to lakes and large rivers.	**Potential to occur.** No suitable nesting and foraging habitat is present in the BSA; however, this species may occur onsite while traveling to/from nearby foraging and nesting sites where they are known to occur (e.g., Salinas River, Atascadero Lake, etc.). No CNDDB occurrences have been recorded within 5 miles of the BSA; however, multiple sightings have been recorded within 2 miles of the BSA between 2015 and 2018 along the Salinas River corridor (eBird 2018).
purple martin *Progne subis*	--/--/SSC; MBTA	Uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats. Forages over riparian areas, forest, and woodland; found in a variety of open habitats in migration.	**Potential to occur.** Foraging habitat is present in the oak woodlands in and adjacent to the BSA. One CNDDB occurrence (2006) was recorded just outside the 5-mile buffer surrounding the BSA; however the site is within species' summer range.
MAMMALS			
Monterey dusky-footed woodrat *Neotoma macrotis luciana*	--/--/SSC	Occurs in dense chaparral, coastal sage scrub, pinyon-juniper, oak and riparian woodlands, and mixed coniferous forest habitat with well-developed understory to nest.	**Potential to occur.** Suitable oak woodland habitat is present in the BSA; however, no woodrat middens were observed. No CNDDB occurrences have been recorded within 5 miles of the BSA.
American badger* *Taxidea taxus*	--/--/SSC	Occurs in open grassland, chaparral, and oak woodland with friable soils. Needs sufficient food and open, uncultivated ground.	**Present.** One deceased individual was observed on the north side road shoulder of El Pomar Drive within the BSA during the June 2018 field survey. One CNDDB occurrence (2003) was also recorded 2.5 miles southwest of the BSA.

Common Name *Scientific Name*[1]	Status Federal/ State/Other[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
San Joaquin kit fox *Vulpes macrotis mutica*	FE/ST/--	Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance represent suitable habitat; occurs in some agricultural areas.	**Potential to occur.** Grassland habitat in the BSA may provide suitable foraging or den habitat for this species. Vineyards on the north side of the BSA may contain suitable burrows and prey base. No CNDDB occurrences have been recorded within 5 miles of the BSA; however, two CNDDB occurrences (1990 and 1991) were recorded within the city of Paso Robles, just 4 miles north of the BSA.

[1] List of animal species based on CNDDB searches of USGS 7.5-minute quadrangles—Adelaida, Paso Robles, Estrella, York Mountain, Templeton, Creston, Morro Bay North, Atascadero, and Santa Margarita.
[2] Listing status based on CDFW CNDDB State & Federally Listed Endangered & Threatened Animals of California List, 2018.
[3] Habitat associations based on CDFW California Wildlife Habitat Relationship Systems (CWHRS), 2018.
*CNDDB occurrences recorded within 5 miles of the BSA.

Status Codes
-- = No Status
FE = Federally Listed Endangered
FT = Federally Listed Threatened
FC = Federal Candidate for Listing
SE = California State-Listed Endangered
ST = California State-Listed Threatened
SCE = California Candidate Endangered
DL = Delisted
FP = CDFW Fully Protected
SSC = CDFW Species of Special Concern

Figure 8. CNDDB Records of Sensitive Animals Map



4.4.2.1 CALIFORNIA RED-LEGGED FROG

Two California red-legged frog (*Rana draytonii*) CNDDB occurrences were recorded approximately 5 miles south-southwest of the BSA in Paso Robles and Graves Creeks, both tributaries to Salinas River, just north of Templeton. Seasonal ponds that may provide suitable aquatic breeding or nonbreeding habitat for this species were observed approximately 0.25 mile southeast of the BSA. The ephemeral drainage observed within the BSA may provide suitable dispersal habitat for this species. The species could also be present in upland areas during rain events due to dispersal from water bodies within and near the BSA. While this species was not observed during the June 2018 field survey, this species has the potential to occur because suitable breeding and upland habitat exist in the BSA and the substation alternative is within the species' range.

4.4.2.2 GOLDEN EAGLE

While no CNDDB records were listed in the nine-quadrangle CNDDB search, golden eagle (*Aquila chrysaetos*) sightings have been recorded within 2 miles of the substation alternative between 2014 and 2018 (eBird 2018). One active nest was recorded in 2000 approximately 3 miles north of the BSA, in a tall eucalyptus tree near Santa Ysabel Creek within the Santa Ysabel Home Ranch (Santa Ysabel Homeowners Association [HOA]) (County of San Luis Obispo 2001). Biologists observed the same nest to be active during the 2016 field surveys for the proposed project (SWCA 2016a). A second active nest was identified in a eucalyptus tree in 2018 along Santa Ysabel Avenue, near the western entrance to Santa Ysabel HOA. Biologists observed adults flying in the vicinity of the nest during the June 2018 field survey, as well as photographic documentation received from an HOA resident of an eaglet in that same nest. Grassland habitat located within the BSA and larger more expansive spreads of grassland habitat situated to the southeast of the BSA may provide suitable foraging habitat for this species. Because of the presence of nesting and foraging habitat and proximity to documented occurrences, golden eagles are likely to occur in the BSA.

4.4.2.3 GRASSHOPPER SPARROW

No grasshopper sparrow (*Ammodramus savannarum*) CNDDB occurrences have been recorded within 5 miles of the BSA. Although this species was not observed during the 2018 field surveys, it has the potential to occur because suitable foraging and nesting habitat exists in the BSA and the substation alternative is within the species' summer range.

4.4.2.4 WHITE-TAILED KITE

While no CNDDB records were listed in the nine-quadrangle CNDDB search, white-tailed kite (*Elanus leucurus*) sightings have been recorded within 2 miles of the BSA between 2007 and 2018 (eBird 2018). While this species was not observed during the survey period, it has potential to occur because nesting and foraging habitat exists in the BSA and occurrences have been recorded in the area.

4.4.2.5 BALD EAGLE

While no CNDDB records were listed in the nine-quadrangle CNDDB search, bald eagle (*Haliaeetus leucocephalus*) sightings have been recorded within 2 miles of the BSA between 2015 and 2018 (eBird 2018). Several eBird sightings were recorded along the Salinas River, and biologists observed one juvenile bald eagle soaring near Golden Hill Road in the city of Paso Robles on June 15, 2016, approximately 6 miles north of the BSA. While no suitable nesting or foraging habitat is present within the BSA, this species is known to occur in the area and has the potential to occur while traveling to/from more suitable habitat areas (e.g., Salinas River riparian corridor, Atascadero Lake).

4.4.2.6 PURPLE MARTIN

While no CNDDB records were listed within 5 miles of the BSA, purple martin (*Progne subis*) was recorded (2006) immediately south of the 5-mile search radius. Natural and urban landscapes in the BSA may provide suitable nesting and foraging habitat for this species. Because of the presence of suitable habitat and proximity to the documented occurrence, purple martins have potential to occur in the BSA.

4.4.2.7 MONTEREY DUSKY-FOOTED WOODRAT

No Monterey dusky-footed woodrat (*Neotoma macrotis luciana*) CNDDB occurrences have been recorded within 5 miles of the BSA. Dense woodlands located along the ephemeral drainage feature south of the existing Templeton Substation may provide suitable habitat for this species. While this species was not observed within the BSA during the June 2018 field survey, it has the potential to occur because suitable habitat exists in the BSA, and the substation alternative is within the species' range.

4.4.2.8 AMERICAN BADGER

One American badger carcass was observed on El Pomar Drive during the June 2018 field survey (Figure 5). This individual was presumed to be killed as a result of vehicular traffic. Nonnative grasslands and oak woodlands observed in the BSA may provide suitable habitat for this species. In addition, an abundance of prey species is present within and around the BSA, such as California ground squirrel (*Otospermophilus beecheyi*) and other small rodent species. Because of the presence of suitable habitat and the individual sighting along the road, this species is present in the BSA.

4.4.2.9 SAN JOAQUIN KIT FOX

Current record searches show 10 San Joaquin kit fox (*Vulpes macrotis mutica*) CNDDB occurrences within the nine-quadrangle search between 1987 and 1997, six of which have been recorded at Camp Roberts, approximately 16 miles to the northwest. One kit fox is known to have moved from Camp Roberts to the Carrizo Plain, located 40 miles southeast of the substation alternative (California State University, Stanislaus 2016). Natural connections between the Salinas River and Pajaro River watersheds, the Carrizo Plain Natural Area, and the San Joaquin Valley provide migration corridors for San Joaquin kit fox; however, the amount of movement between these areas is unknown. While kit fox populations in the Salinas River watershed are known to be located at Camp Roberts and Fort Hunter Liggett (California State University, Stanislaus 2016), the Salinas River is approximately 0.5 mile west of the BSA and may function as a migration corridor for documented population between Shandon Valley and Camp Roberts. In addition, there are no known significant barriers to kit fox dispersal or migration between these two regions. Biologists surveyed for potential barriers that may prohibit kit fox movement through the BSA, no deer fences or other low-lying barriers were observed in the BSA. Therefore, San Joaquin kit fox has the potential to occur in the BSA. The nearest kit fox occurrence to the BSA was recorded approximately 6 miles northeast of the substation alternative in 1991, near the intersection of Union Road and Golden Hill Road.

To assess the potential for San Joaquin kit fox (SJKF) to occur in the BSA, biologists conducted an early evaluation survey as defined by the USFWS San Joaquin Kit Fox Survey Protocol for the Northern Range (USFWS 1999). Biologists examined vegetation communities and potential suitable natal and non-natal dens at and around the substation alternative site. Methodologies included walking transects approximately 10 feet apart, identifying suitable prey base, assessing burrows for den characteristics (e.g. "keyhole" shape entrance, long soil apron from the entrance), and mapping burrows with entrances 4 inches diameter or larger. As discussed in Section 4.2.2, vegetation communities in the BSA consists of viticulture, blue oak woodlands, nonnative grassland that are routinely subject to disking and mowing, ruderal habitat, and urban/developed areas. The BSA comprises approximately 37 acres of nonnative grassland habitat, which likely provides suitable habitat for San Joaquin kit fox. This area provides a prey base (i.e., California

ground squirrel and small mammals) and has the potential to provide natal or non-natal den sites (White and Ralls 1993). However, the majority of the grassland habitat (approximately 30 acres) in the BSA was recently disked at the time of the June 2018 field survey, reducing the availability of suitable denning habitat. Furthermore, vineyards similar to the one observed in the northeast portion of the BSA, have been reported to provide marginal habitat for kit fox due to their open structure and their lack of underlying layer of herbaceous vegetation to support a prey base, as well as row crops are subjected to weekly inundation during irrigation, which impeded kit fox foraging and precludes the establishment, maintenance, and use of earthen dens (Clark 2001; Warrick et al. 2007).

No San Joaquin kit fox were observed during the surveys and no signs of San Joaquin kit fox were observed (e.g., tracks, scat, etc.). Seven small mammal burrows were observed within the BSA during the field survey, which appeared to be primarily inhabited by California ground squirrel and pocket gopher (*Thomomys bottae*). In addition, one canid burrow was observed in the BSA; however, this burrow had no signs of San Joaquin kit fox. All burrows that could be considered potential den use were mapped and are depicted on Figure 9. Due to the presence of burrows of sufficient size (e.g., suitable as potential dens) within the BSA, and the prey base availability within the BSA, there is potential for San Joaquin kit fox to occur. However, due to a lack of recent known occurrences in the immediate vicinity of the substation alternative, and the presence of human and vehicular traffic associated with the ranching, viticulture operation, and routine disking and tilling that occurs within the BSA, it is unlikely that San Joaquin kit fox would use the BSA for extended periods of time.

4.4.3 Nesting Migratory Passerine Birds and Raptors

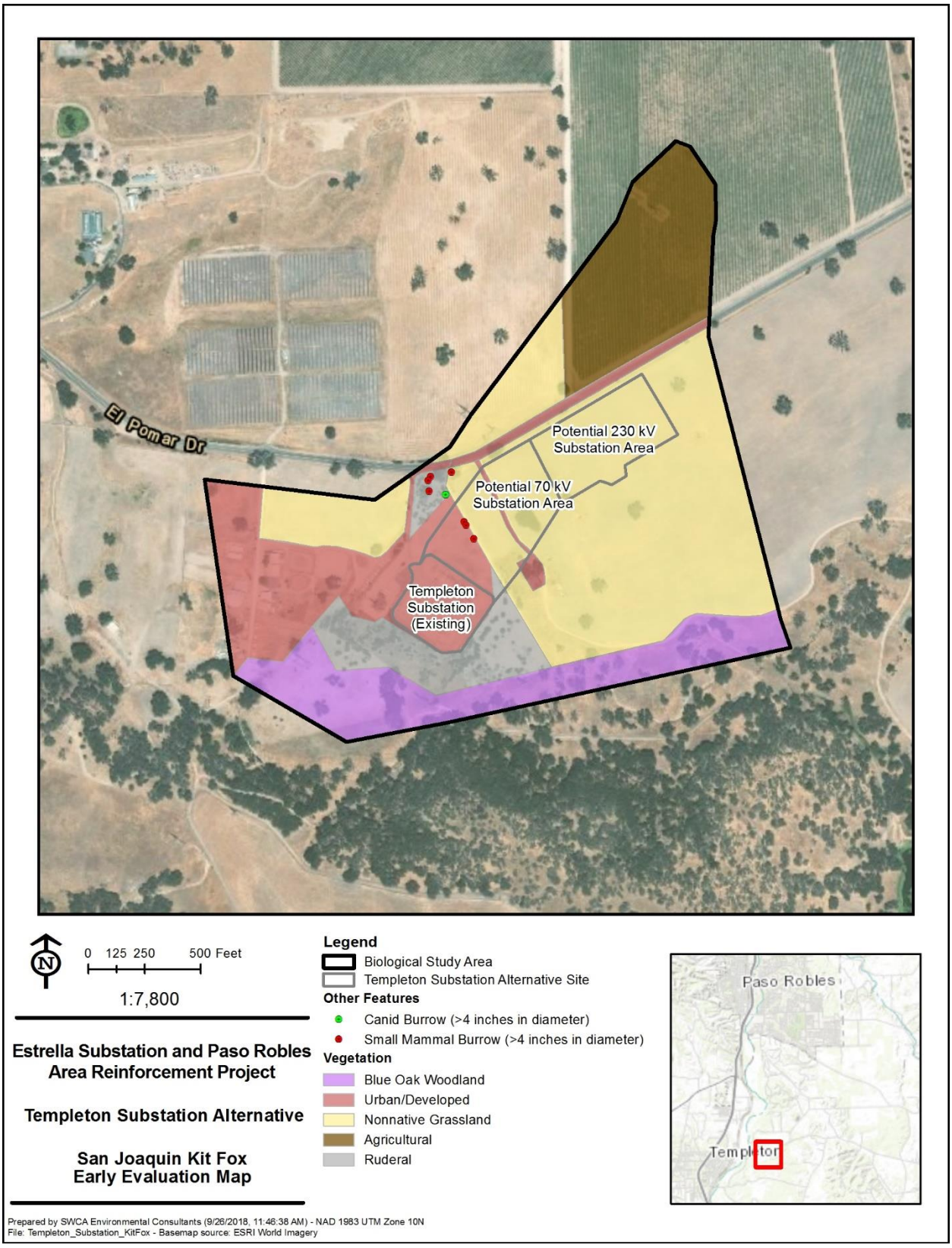
Nesting habitat for migratory passerine birds and raptors protected by the MBTA and California Fish and Game Code Section 3500 et seq. is present throughout the BSA, including trees, shrubs, and grasslands. In addition, several owl boxes were observed throughout the agricultural areas in the BSA. There is high potential for avian species to nest in the BSA during the typical nesting season (February 1–August 31). Nesting is unlikely outside of the typical nesting season, although some avian species may forage year-round near the work zone.

5 DISCUSSION

Based on an in-depth literature review and field surveys, 15 special-status plant species and 13 additional special-status wildlife species were determined to be either present, likely to occur, have potential to occur, or unlikely to occur within the substation alternative BSA. There is a high potential for avian species to nest in the BSA during the typical nesting season (February 1–August 31).

Two potentially jurisdictional drainage features were observed within the BSA, including an eroded drainage channel located immediately south of the existing Templeton Substation, and an ephemeral drainage feature that drains into the Salinas River. The tributary to the Salinas River may serve as a wildlife migration corridor for dispersal of species between local areas and at larger scales between regions.

Figure 9. San Joaquin Kit Fox Early Evaluation Map



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7 LIST OF PREPARERS

- Chennie Castañon, B.S.
- Kristen Outten, B.A.
- Beth Moisan, Senior Project Manager

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Appendix A.
Flora Compendium

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Table A-1. Flora Compendium

Scientific Name*	Common Name	Native	Species Status
ANGIOSPERMS (DICOTS)			
Anacardiaceae	**Sumac family**		
Toxicodendron diversilobum	poison oak	Yes	
Apiaceae	**Carrot family**		
Daucus carota	Queen Anne's lace	No	
Osmorhiza berteroi	sweet cicely	Yes	
Asclepiadaceae	**Milkweed family**		
Asclepias eriocarpa	indian milkweed	Yes	
Asclepias fascicularis	narrow-leaf milkweed	Yes	
Asclepias vestita	woolly milkweed	Yes	
Asteraceae	**Sunflower family**		
Artemisia douglasiana	California mugwort	Yes	
Baccharis pilularis ssp. consanguinea	coyote brush	Yes	
Carduus pycnocephalus	Italian thistle	No	
Centaurea solstitialis	yellow starthistle	No	
Erigeron foliosus	leafy fleabane	Yes	
Boraginaceae	**Borage family**		
Amsinckia intermedia	common fiddleneck	Yes	
Brassicaceae	**Mustard family**		
Brassica nigra	black mustard	No	
Caprifoliaceae	**Honeysuckle family**		
Lonicera interrupta	honeysuckle	Yes	
Symphoricarpos albus	common snowberry	Yes	
Fabaceae	**Pea family**		
Lupinus microcarpus var. *microcarpus*	chick lupine	Yes	
Vicia villosa	hairy vetch	No	
Fagaceae	**Oak family**		
Quercus agrifolia	coast live oak	Yes	
Quercus douglasii	blue oak	Yes	
Quercus lobata	valley oak	Yes	
Geraniaceae	**Geranium family**		
Erodium cicutarium	red-stemmed filaree	No	
Erodium botrys	filaree	No	

Scientific Name*	Common Name	Native	Species Status
Grossulariaceae	**Gooseberry family**		
Ribes sp.	unknown gooseberry	Yes	
Onagraceae	**Evening primrose family**		
Clarkia unguiculata	elegant clarkia	Yes	
Polygonaceae	**Buckwheat family**		
Rumex crispus	curly dock	No	
Rosaceae	**Rose family**		
Rosa californica	California wild rose	Yes	
Solanaceae	**Nightshade family**		
Datura wrightii	jimson weed	Yes	
ANGIOSPERMS (MONOCOTS)			
Cactaceae	**Cactus family**		
Opunita ficus-indica	mission cactus	No	
Liliaceae	**Lily family**		
Brodiaea terrestris	dwarf brodiaea	Yes	
Poaceae	**Grass family**		
Avena barbata	slender wild oats	No	
Bromus diandrus	ripgut brome	No	
Bromus hordeaceus	soft chess brome	No	
Elymus triticoides	creeping wildrye	Yes	
Hordeum murinum ssp. leporinum	foxtail	No	
Hordeum marinum ssp. gussoneanum	Mediterranean barley	No	
Vulpia octoflora	six-weeks fescue	Yes	

*Vascular Plants nomenclature follows *The Jepson Manual* and http://ucjeps.berkeley.edu/interchange.html.

Appendix B.
Fauna Compendium

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Table B-1. Fauna Compendium

Scientific Name	Common Name	Special Status
BIRDS		
Odontophoridae		
Callipepla californica	California quail	
Columbidae		
Zenaida macroura	mourning dove	
Streptopelia decaocto	Eurasian collared dove*	
Tyrannidae		
Tyrannus verticalis	western kingbird	
Paridae		
Baeolophus inornatus	oak titmouse	
Corvidae		
Aphelocoma californica	western scrub-jay	
Corvus brachyrhynchos	American crow	
Mimidae		
Mimus polyglottos	northern mockingbird	
Sturnidae		
Sturnus vulgaris	European starling*	
Emberizidae		
Passerculus sandwichensis	savannah sparrow	
Melospiza melodia	song sparrow	
Fringillidae		
Haemorhous mexicanus	house finch	
Passeridae		
Passer domesticus	house sparrow*	
MAMMALS		
Mustelidae		
Taxidea taxus	American badger	CDFW Species of Special Concern
Sciuridae		
Otospermophilus beecheyi	California ground squirrel	
Leporidae		
Sylvilagus bachmani	brush rabbit	
REPTILES		
Phrynosomatidae		
Sceloporus occidentalis	western fence lizard	

*Introduced species
**Special-status species

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Appendix C.
Photo Documentation

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Photo 1: View looking southeast at the existing Templeton Substation. Note the concrete-lined detention basin in the southern portion of the substation (red arrow).

Photo 2: View looking northeast at the southwestern corner of the existing Templeton Substation within the BSA.

Photo 3: View looking northeast at the urban/developed area on the west side of the BSA.

Photo 4: View showing the nonnative grassland habitat located at the potential 70 kV and 230 kV substation sites. The grassland area was disked the day prior to the June 2018 field survey.

Photo 5: View showing agricultural areas located within the BSA, northeast of the Templeton Substation Alternative site.

Photo 6: View facing west along the south end of the BSA showing urban/developed and agricultural areas.

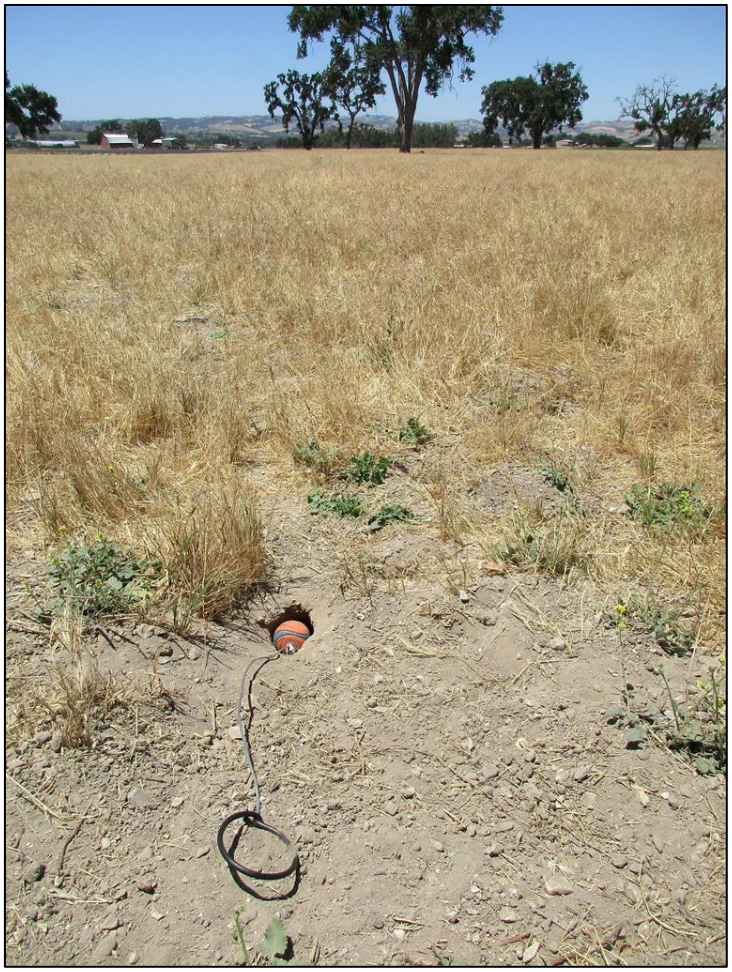

Photo 7: View showing a small mammal burrow at or greater than 4 inches diameter that was recorded and mapped as potential suitable San Joaquin kit fox habitat in the BSA.

Photo 8: View showing a candid burrow located north of the Templeton Substation. The burrow was recorded and mapped as potential suitable San Joaquin kit fox habitat.

Photo 9: View looking northeast of the Templeton Substation, in an area identified as ruderal due to its disturbed nature of recolonizing flora such as coyote brush.

Photo 9: View looking southeast at the eroded drainage feature located at the southeast corner of the existing Templeton Substation. This drains towards the unnamed ephemeral drainage approximately 300 feet south of the existing substation.