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

Prepared for

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EXECUTIVE SUMMARY

A Biological Resources Technical Report (BRTR) has been prepared for the 70 kilovolt (kV) power line component of the Estrella Substation and Paso Robles Area Reinforcement Project (project) proposed jointly by Pacific Gas and Electric Company (PG&E) and NextEra Energy Transmission West, LLC. PG&E proposes to construct approximately 11 miles of a new double-circuit power line and 6 miles of reconductoring to reinforce the electrical grid in the Paso Robles area.

This BRTR documents the existing biological resources in the vicinity of the power line segments of the project. Biological resources considered for this report include, sensitive species of plants and animals, sensitive habitats and natural communities, and water features potentially subject to state or federal jurisdiction. A literature review of existing information and field surveys were conducted to document biological resources at the project encompassed within a Biological Study Area (BSA). This report outlines the methodologies that were used to assess biological resources and documents existing biological resources in the vicinity of the power line portion of the project.

One special-status animal—loggerhead shrike (*Lanius ludovicianus*; California Department of Fish and Wildlife Species of Special Concern)—was observed in the BSA. In addition, 18 special-status plant species and 26 special-status wildlife species were determined to be either likely to occur, have potential to occur, or unlikely to occur. There is also high potential for avian species to nest in the BSA during the typical nesting season (February 1–August 31). A portion of the BSA is located in federally designated vernal pool fairy shrimp (*Branchinecta lynchi*) critical habitat and suitable habitat for this species was observed within the BSA. Several potentially jurisdictional wetlands and waters, including Salinas River, Huerhuero Creek, and several unnamed natural drainages, were observed throughout the BSA. These features may also serve as wildlife migration corridors for dispersal of species between local areas and at larger scales between regions.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
AAC	all-aluminum conductor
AOU	American Ornithologists' Union
APMs	Applicant Proposed Measures
APN	Assessor's Parcel Number
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
BRTR	Biological Resources Technical Report
BSA	Biological Study Area
CCRWQCB	Central Coast Regional Water Quality Control Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
City	City of Paso Robles, agency
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Luis Obispo, agency
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBH	diameter at breast height
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
ESU	Environmentally Sensitive Unit
GIS	Geographic Information Systems
GO	General Order
GPS	global positioning system
kV	kilovolt
LDSP	light-duty steel poles

LST	lattice steel tower
MBTA	Migratory Bird Treaty Act
MS4	municipal separate storm drain system
NEET West	NextEra Energy Transmission West, LLC
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
OSD	Official Soil Series Description
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code
project	Estrella Substation and Paso Robles Area Reinforcement Project
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SR	State Route
SSC	Species of Special Concern
SWANCC	Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TPD	triangular post and dead-end
TSP	tubular steel poles
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1 INTRODUCTION

Pacific Gas and Electric Company (PG&E) proposes to construct a new approximately 11-mile double-circuit 70 kilovolt (kV) power line and approximately 6 miles of reconductoring, in the Paso Robles area of San Luis Obispo County, California (Figure 1). PG&E is undertaking this effort as part of the larger Estrella Substation and Paso Robles Area Reinforcement Project (project) proposed jointly by PG&E and NextEra Energy Transmission West, LLC (NEET West). The project will reinforce the electrical grid in the Paso Robles area. This Biological Resources Technical Report (BRTR) has been prepared to document the existing biological resources in the vicinity of the power line portions of the project. A similar report has been prepared for the substation component of the project, referred to as Estrella Substation, 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 potentially subject to state or federal jurisdiction. This report describes the methodologies used to assess the biological resources known to occur and with the potential occur at the project and documents existing biological resources in the vicinity of the power line portions of the project.

A Biological Study Area (BSA) was established to include the maximum anticipated extent of project-related effects. The BSA included an additional 400-foot buffer around the new 70 kV power line segment, and an additional 100-foot buffer around the reconductoring segment (Figure 2). The BSA was slightly expanded in some areas to account for variability in the project alignment. Field surveys focused on areas within the BSA, as described in Section 3.3, Field Surveys.

1.1 Project Location

The project is located in the north-central portion of San Luis Obispo County, California, within and around Paso Robles (Figures 1 and 2). The project route begins at Estrella Substation approximately 5 miles east of downtown Paso Robles, extends generally northeast for 2.1 miles, generally northwest for 4.2 miles, and then west for 4.3 miles where it intersects the existing San Miguel-Paso Robles 70 kV power line. The project then continues generally south for approximately 6 miles paralleling portions of Salinas River, and finally ties into Paso Robles Substation in Paso Robles. Land uses surrounding the project primarily consist of urban and rural residential developments and agricultural areas dominated by vineyards. The project is located on a combination of privately owned and City of Paso Robles (City) owned parcels.

1.2 Project Description

The project will include the construction of approximately 11 miles of a new double-circuit 70 kV power line extending from Estrella Substation to the existing San Miguel-Paso Robles 70 kV power line. At this interconnection point, the existing San Miguel-Paso Robles 70 kV power line will extend in two separate directions (north and south). The new Estrella-San Miguel 70 kV power line circuit will be connected to the portion of existing 70 kV power line that heads north to San Miguel Substation. The new Estrella-Paso Robles 70 kV power line will also be connected to the portion of the existing San Miguel-Paso Robles 70 kV power line that extends south to Paso Robles Substation. This approximately 6-mile portion of existing 70 kV power line between the interconnection point and Paso Robles Substation will be reconductored as part of the project.

A more detailed description of the new double-circuit portion (new 70 kV power line segment) and reconductoring portion (reconductoring segment) of these power lines is provided in the subsections that follow.

Figure 1. General Vicinity Map

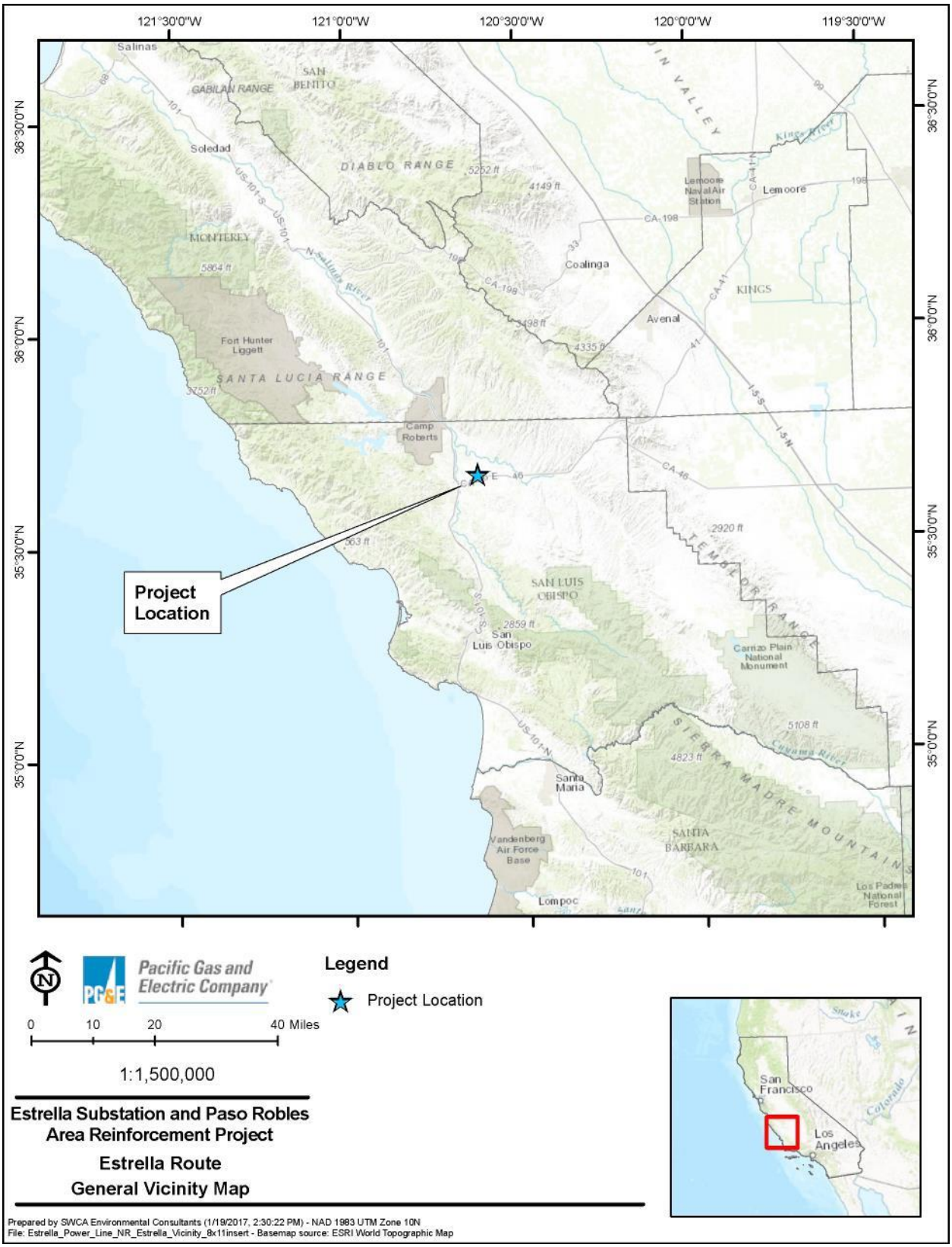
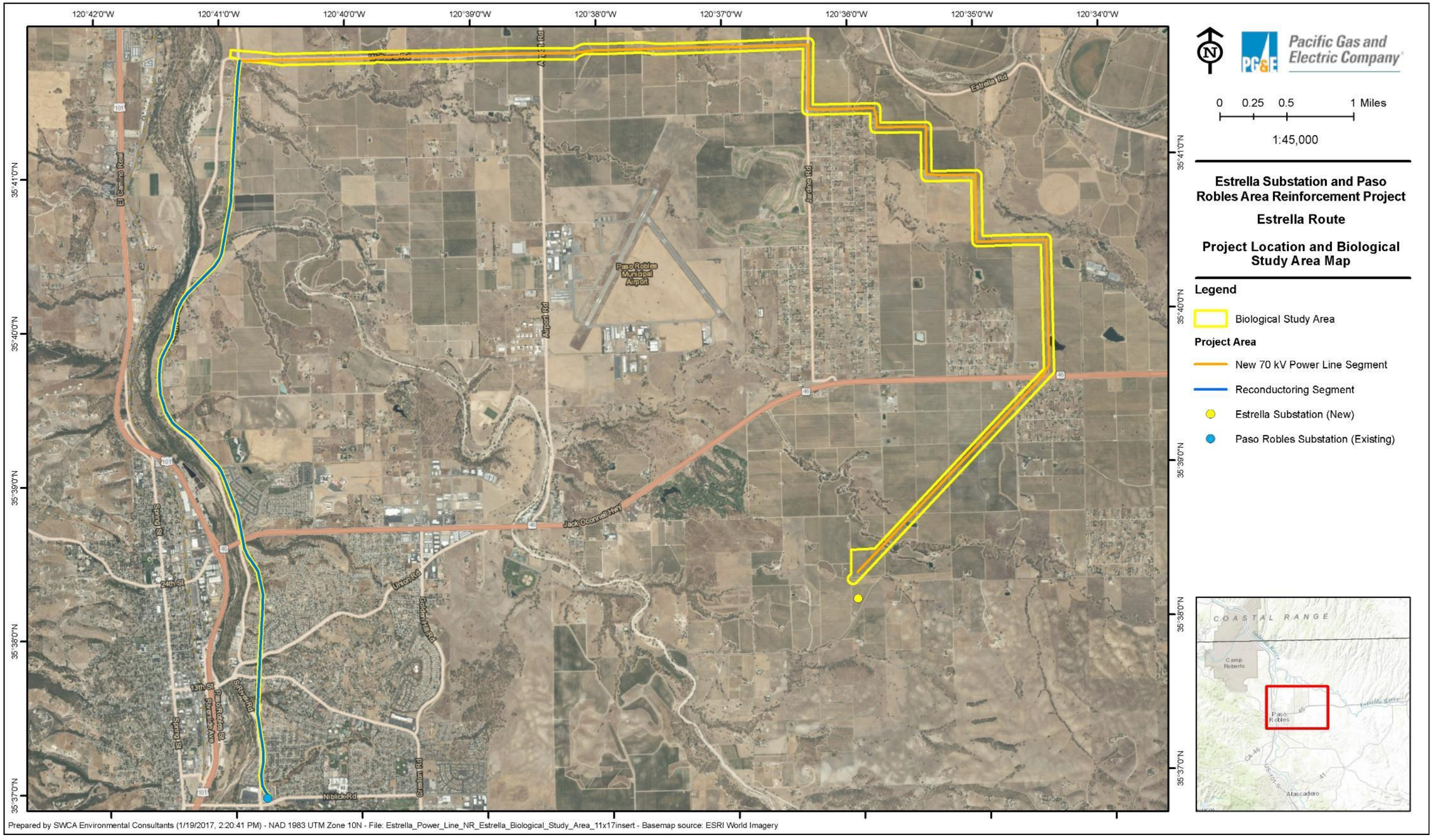


Figure 2. Project Location and Biological Study Area Map



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1.2.1 New 70 kV Power Line Segment

The new 70 kV power line segment consists of a new, approximately 11-mile-long, double-circuit, 70 kV power line that will be constructed between Estrella Substation and the existing San Miguel-Paso Robles 70 kV power line. The new 70 kV power line segment will travel northeast from Estrella Substation, spanning over vineyards and under the existing Diablo-Gates 500 kV and Morro Bay-Gates 230 kV transmission lines to a position on the northwest side of the existing transmission lines and traveling northeast and parallel with the other two existing tower lines for approximately 2.1 miles before reaching its intersection with State Route (SR-) 46. The line will then head north along an existing dirt road through vineyards for approximately 1 mile. At this point, the line will zig zag generally northwest along existing dirt and paved roads through vineyards and rural residential areas, extending west for 0.5 mile, north for 0.5 mile, west for 0.3 mile, north for 0.4 mile, west for 0.4 mile, north for 0.1 mile, west for 0.5 mile, and north for 0.5 mile. The line will then head west through vineyards and grasslands for 2 miles, and then west along Wellsona Road for an additional 2.3 miles. At the intersection of Wellsona Road and River Road, the new 70 kV power line segment will interconnect with the existing San Miguel-Paso Robles 70 kV power line, forming the new San Miguel-Union 70 kV power line to the north and the new Estrella-Paso Robles 70 kV power line to the south (reconductoring segment).

The new 70 kV power line segment will be supported by a combination of lattice steel towers (LSTs), tubular steel poles (TSPs), wood poles, and light-duty steel poles (LDSPs). A description of the required structures and the associated conductors is provided in the subsections that follow.

1.2.1.1 STRUCTURES

The new 70 kV power line segment will consist of approximately 11 miles of double-circuit 70 kV line on a combination of LSTs, TSPs, wood poles, and LDSPs. The portion of the line that will be installed within the existing PG&E transmission corridor will utilize LSTs. The LSTs will be installed generally adjacent to the existing 500 kV towers, utilizing an average span length of approximately 1,100 feet. Each LST will be installed on four individual concrete pier foundations.

The remainder of the new 70 kV power line segment will utilize two types of poles, as follows:

- **Tubular Steel Poles:** In locations where the new 70 kV power line segment is not parallel to the existing Diablo-Gates 500 kV transmission line, TSPs will be typically installed in locations where the alignment changes direction, utilizing an average span length of approximately 300 to 500 feet. Each TSP will be installed on one concrete pier foundation.

- **Light-Duty Steel Poles:** In locations where the new 70 kV power line segment is not parallel to the existing Diablo-Gates 500 kV transmission line, LDSPs will be typically installed in locations where the alignment is generally straight, utilizing an average span length of approximately 300 to 500 feet.

1.2.2 Reconductoring Segment

An approximately 6-mile-long portion of the existing 70 kV power line will be reconductored beginning where the new overhead segment intercepts the existing 70 kV power line. The reconductoring segment will travel south along the existing pole line alignment for 1.4 miles before crossing over Estrella River, then southwest for 0.5 mile where it intersects River Road, then generally south for 1.1 miles on the east side of River Road before crossing into Paso Robles. Land uses within the county portion of the reconductoring segment consist largely of vineyards, pastureland, and rural residential. Once in the city limits, the reconductoring segment will continue to travel south for approximately 3 miles, staying generally east of River Road, and running near and through some residential communities. At the intersection of

South River Road and Cary Street, the reconductoring segment will turn southeast and continue along Cary Street for approximately 0.1 mile before terminating at Paso Robles Substation.

1.2.2.1 STRUCTURES

The reconductoring segment will consist of approximately 6 miles of single-circuit 70 kV power line on a combination of LDSPs and/or wood poles and new TSPs. As described previously, LDSPs will typically be used in locations where the alignment is generally straight and TSPs will be used in locations where the alignment changes direction. Anchors and guy wires may be attached to LDSPs in locations where additional stability is required to support the conductor tension. The new poles will typically be installed within 10 feet of the existing poles, which will result in a typical pole spacing of approximately 300 feet. The final pole designs, heights, and spacing will be determined during final engineering based on the topography and existing land uses in the project area.

1.2.3 Construction

1.2.3.1 STAGING AREAS

The staging areas will be the main base of operations during project construction. They will be the assembly point for project personnel, as well as the location for temporary, portable bathroom facilities; equipment storage during off-work hours and weekends; materials storage; employee parking; office trailer staging; and a meeting area, as needed, for project management.

Two staging areas between 5 and 15 acres in size will be established during project construction. One staging area will be established in close proximity to Estrella Substation and another near the connection point of the new 70 kV power line segment to the existing San Miguel-Paso Robles 70 kV power line. Exact locations for the staging areas will be determined during the final planning phase prior to construction. Final staging area sizes will vary depending on negotiations with third-party property owners to establish the staging area's temporary construction easements. If not already provided, in-ground chain-link fencing will be installed around the perimeter of the staging areas for security purposes. Power to staging areas will be supplied by tapping an existing distribution line in the area.Prior to use, the staging area will be prepared to allow for the safe operation of construction equipment and vehicles. If the selected site is not comprised of a solid earth or concrete/paved foundation, any weeds will be cleared.

1.2.3.2 WORK AREAS

Several temporary work areas will be established to facilitate construction of the project. These temporary work areas are also described in further detail in the subsections that follow. The precise locations of the temporary work areas will be determined as part of the final design and may be changed, as necessary, at the time of construction due to land use changes, unanticipated impacts, and other factors. Unless specified in the subsections that follow, all work areas will be accessed from adjacent paved roads, unpaved roads, or site-specific overland access routes. In some locations, work areas may be accessed by footpaths if conditions preclude the use of vehicles. A more detailed description of the project access is included below. Following construction, all temporary work areas will be restored to pre-construction conditions.

Structure Work Areas

Structure work areas will be established at each tower/pole that will be installed as part of the project. These work areas will be used to facilitate the tower/pole assembly, erection, and hardware assembly processes. They will also be used to support the conductor installation/removal processes. These work areas will typically be centered on the proposed tower/pole location, and will vary in size from 120 feet by 120 feet to 40 feet by 40 feet, depending on the type of tower/pole being installed. The final tower/pole locations will be determined when engineering is complete and, where feasible, will be adjusted to account for property owner preferences. Structure work areas may also be adjusted to accommodate the final tower/pole

locations and to avoid environmental resources. These work areas may be cleared of vegetation and graded, if necessary, prior to their use. Some sites may also require tree trimming, tree removal, and/or vine removal.

Crossing Structure Work Areas

Prior to the installation of new conductors, temporary crossing structures—typically consisting of either vertical wood poles with crossarms or staged construction equipment—will be installed or mobilized at crossings of energized electric lines, communication facilities, and/or major roadways to prevent the conductors from sagging onto other lines or roads during removal or installation. To accommodate the installation of a crossing structure, PG&E will establish a work area measuring approximately 40 feet by 40 feet at each proposed crossing. Preparation of the site will typically be limited to mowing vegetation, as needed, to minimize the risk of fire.

Pull and Tension Sites

Conductor installation activities will include pull and tension equipment staging, temporary pole anchor installation, and pulling and tensioning of the conductor. Pull sites will typically be located within the easement and spaced 0.5 to 2 miles apart, or from heavy angle to heavy angle as required by the final design. Access may be required throughout the easement, away from structure work areas and pull sites, to support pull and tension activities. In locations where pulling will be required through an angle, or at the start of a new direction of the alignment, the pull site may be located at an angle outside the easement or off the end of an easement corner. Pull sites will typically be 70 feet wide and will range between approximately 120 and 150 feet long. The final pull site locations will be determined during final design of the project. All pull sites located outside of paved areas may require vegetation trimming/removal to minimize the risk of fire and, depending on the local terrain, some minor grading may be required to ensure a flat and safe work environment. Depending on the time of year and conditions at the time of construction, gravel may be applied to help stabilize the ground for equipment use.

Landing Zones

Landing zones will be used during construction for the staging, storage, refueling, and operation of helicopters during construction. Three landing zones have been preliminarily identified for use during the project and are listed below:

- Landing Zone 1: Paso Robles Municipal Airport;
- Landing Zone 2: Previous home site adjacent to South River Road; and,
- Landing Zone 3: Estrella Substation site, south of existing temporary worker residence adjacent to Union Road.

The two non-airport landing zones will measure about 100 by 100 feet, with a 30- by 30-foot touchdown pad area. Because the identified landing zones are comprised of an airport and two disturbed areas within the project area, these landing zones will not require extensive preparation.

Access Roads / Overland Access Routes

Construction crews, materials, and equipment will primarily access the project site by using existing paved or dirt access roads. In addition to using a system of existing roads, PG&E may also grade or mow new temporary unpaved roads, or travel overland to provide access to pole locations along the new 70 kV power line segment and reconductoring segment. Access to the work sites for workers and equipment will occur using rubber tire mounted vehicles.

Some poles may also be accessed on foot if sensitive resources preclude the use of heavy equipment. For roads that require improvements for access and equipment delivery, grading will be conducted if necessary, followed by the addition of a temporary rock bedding. Equipment required for this work will include a grader, dump truck for gravel delivery, and a loader or tractor to spread rock.

Minor adjustments to access may be necessary at the time of construction due to land use changes, unanticipated impacts, and other factors. Work along the new 70 kV power line segment will occur from the road shoulder where feasible. As a result, access roads will not be required in these locations.

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.

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, and no permits may be issued to PG&E for incidental take of these species. [1]

2.2.3 Protection for Birds: 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 of 1977

The Native Plant Protection Act of 1977 (NPPA; 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. California Fish and Game Code 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.

[1] While take of fully protected species may be authorized by CDFW under a Natural Communities Conservation Plan (NCCP), PG&E activities are not covered by an NCCP so this permitting option is not available.

- 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 project area, 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, pre-determined standard mitigation ratios have been developed for County-permitted projects located within kit fox habitat areas (County of San Luis Obispo 2006).

The project 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.

2.3.4 City of El Paso De Robles General Plan

The City of El Paso De Robles General Plan includes a Conservation Element and Open Space Element, which address the City's commitment to rehabilitate and enhance the environmental quality of the planning area through protection, planning, and management of natural resources (Rincon Consultants, Inc. 2003). The General Plan includes the following goal pertaining to biological resources:

- **Goal C-3: Biological Resources.** As feasible, preserve native vegetation and protected wildlife, habitat areas, and vegetation, through avoidance, impact mitigation, and habitat enhancement.

Specific policies identified to help achieve this goal include:

- **Policy C-3A: Oak Trees.** Preserve existing oak trees and oak woodlands. Promote the planting of new oak trees; and

- **Policy C-3B: Sensitive Habitat.** Incorporate habitats into project design, as feasible, including: oak woodlands, native grasslands; wetlands, and riparian areas.

2.3.5 City of El Paso de Robles Oak Tree Preservation Ordinance

The City of El Paso De Robles Oak Tree Ordinance (Ordinance No. 835 N.S.), as amended in 2001 (Municipal Code Amendment 2001-001-Oak Trees), ensures the "preservation of oak trees in order to maintain the heritage and character of the City of El Paso de Robles ("The Pass of the Oaks") as well as preserve the beauty and identity of the community" (City of El Paso de Robles 2002). While not applicable to the project, the Oak Tree Ordinance requires permits to prune and permits to remove oak trees as identified in Section 10.01.030 as well as encourages preservation and maintenance of existing oak trees as identified in Section 10.01.070.

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 project.

3.1 Literature and Records Review

Biologists reviewed available regional and local natural resources information including published and unpublished documents, publicly available data, and plant records. Database searches of the CDFW California Natural Diversity Database (CNDDB) (CDFW 2016a) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2016) included the 12 U.S. Geological Survey (USGS) 7.5-minute quadrangles at and surrounding the project—Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, and San Miguel (USGS 2016b). Resources reviewed with respect to site-specific information included, but were not limited to:

- CDFW CNDDB (CDFW 2016a);
- CDFW California Wildlife Habitat Relationship Systems (CDFW 2016d);
- CNPS Rare Plant Program (CNPS 2016);

- eBird: An online database of bird distribution and abundance [web application] (eBird 2016);
- *A Guide to the Amphibians and Reptiles of California* (California Herps 2000–2016);
- Natural Resources Conservation Service (NRCS) Web Soil Survey (U.S. Department of Agriculture [USDA] NRCS 2016b);
- USFWS Critical Habitat Portal (USFWS 2016a);
- National Wetland Inventory (NWI) (USFWS 2016b);
- USFWS Species List (USFWS 2016c);
- USGS National Hydrography Dataset (USGS 2016a);
- USGS 7.5-minute series topographic quadrangle maps (USGS 2016b); and,
- Aerial imagery of the project.

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 project. The database provides relevant sensitive species location data, habitat types (including vegetation cover), potential jurisdictional water features (including ditches and drainages), and critical habitat for federally listed species. The data were compiled using ArcGIS software.

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, subspecies, and populations listed or proposed for listing as threatened or endangered pursuant to the ESA, and species that are candidates for such listings.
- 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 (CDFW 2016c).
- Plants included in the Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2016c) with a threatened, endangered, SSC, or CRPR rank of 1 or 2.
- Plants assigned CRPR 1and 2.

Additionally, riparian habitats and water bodies likely under the jurisdiction of USACE, CDFW, and/or RWQCB were considered.

Throughout this report, species, subspecies, varieties, and populations of species are broadly referred to as "species," a term that is used in this BRTR to indicate the pertinent taxonomic levels that are recognized by the state and federal governments with jurisdiction over plants and animals.

Records of sensitive plants, animals, and natural communities within the Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, and San Miguel USGS 7.5-minute quadrangles were queried from the CNDDB RareFind5 (CDFW 2016a) and CNPS Online Inventory of Rare and Endangered Plants (CNPS 2016) databases. 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 project 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 Field Surveys

Biologists conducted general biological reconnaissance surveys and botanical surveys between April 20–22 and April 27–30, 2016. The surveys included documentation of plants and animals, vegetation types, and identification of waters, wetlands, and riparian areas that were potentially under 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 (Appendices A, B, and C). The BSA was examined for presence or signs of occupation by special-status wildlife species (e.g., footprints, scat, feathers, or burrows) and auditory information (for example specific vocalizations of birds). Binoculars were also used to facilitate identification of species. Trees and other

structures (such as buildings and bridges) within the BSA were scanned for avian nests and roosting locations.

Potential jurisdictional wetlands and waters of the State and United States were mapped at the desktop level using data available from the NWI (USFWS 2016b), USGS National Hydrography Dataset (USGS 2016a), USGS topographic maps, and aerial photographs. Wetland mapping field efforts were conducted in all areas suspected of having jurisdictional wetlands or waters. Delineators utilized A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States (USACE 2008), The Jepson Manual: Higher Plants of California (Baldwin et al. 2012), and the 2016 National Wetland Plant List (Arid West Region) (USACE 2016). Presence of hydrophytic vegetation, hydrological conditions, hydric soil indicators, ordinary high water marks (OHWMs), and/or defined bed and banks were evaluated. Areas identified in the field as potentially jurisdictional waters are shown in Appendix E. Because the project is designed to avoid all potentially jurisdictional waters, a formal jurisdictional delineation was not conducted. Refer to Section 4.3.1, Jurisdictional Waters, below for additional detail regarding jurisdictional waters within the BSA.

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. Botanical surveys were 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 (Appendix A). The surveyors referred to The Jepson Manual (Baldwin et al. 2012) to verify plant identification.

A handheld Trimble GeoXT global positioning system (GPS) unit capable of sub-meter accuracy was used to record locations of all special-status species occurrences, sensitive resources, and other potential constraints to the project. 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.

3.4 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 (Baldwin et al. 2012) for plants, the American Ornithologists' Union (AOU) Checklist of North and Middle American Birds (AOU 2015) for birds, a Complete List of Amphibian, Reptile, Bird and Mammal Species in California (CDFW 2014) for other vertebrate wildlife, and the CDFW Special Animals List (CDFW 2016c) for invertebrates.

4 EXISTING CONDITIONS

The project is located within and around Paso Robles in San Luis Obispo County, California. Topography within the BSA ranges from flat (0%) to gently sloping rolling hills (0–20%) to steep slopes (>45%) along intermittent drainages. Elevation in the BSA ranges between approximately 650 and 1,000 feet above mean sea level.

San Luis Obispo County has a Mediterranean climate, which includes warm to hot, dry summers and mild to cool, wet winters. The coastal climate within San Luis Obispo County 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

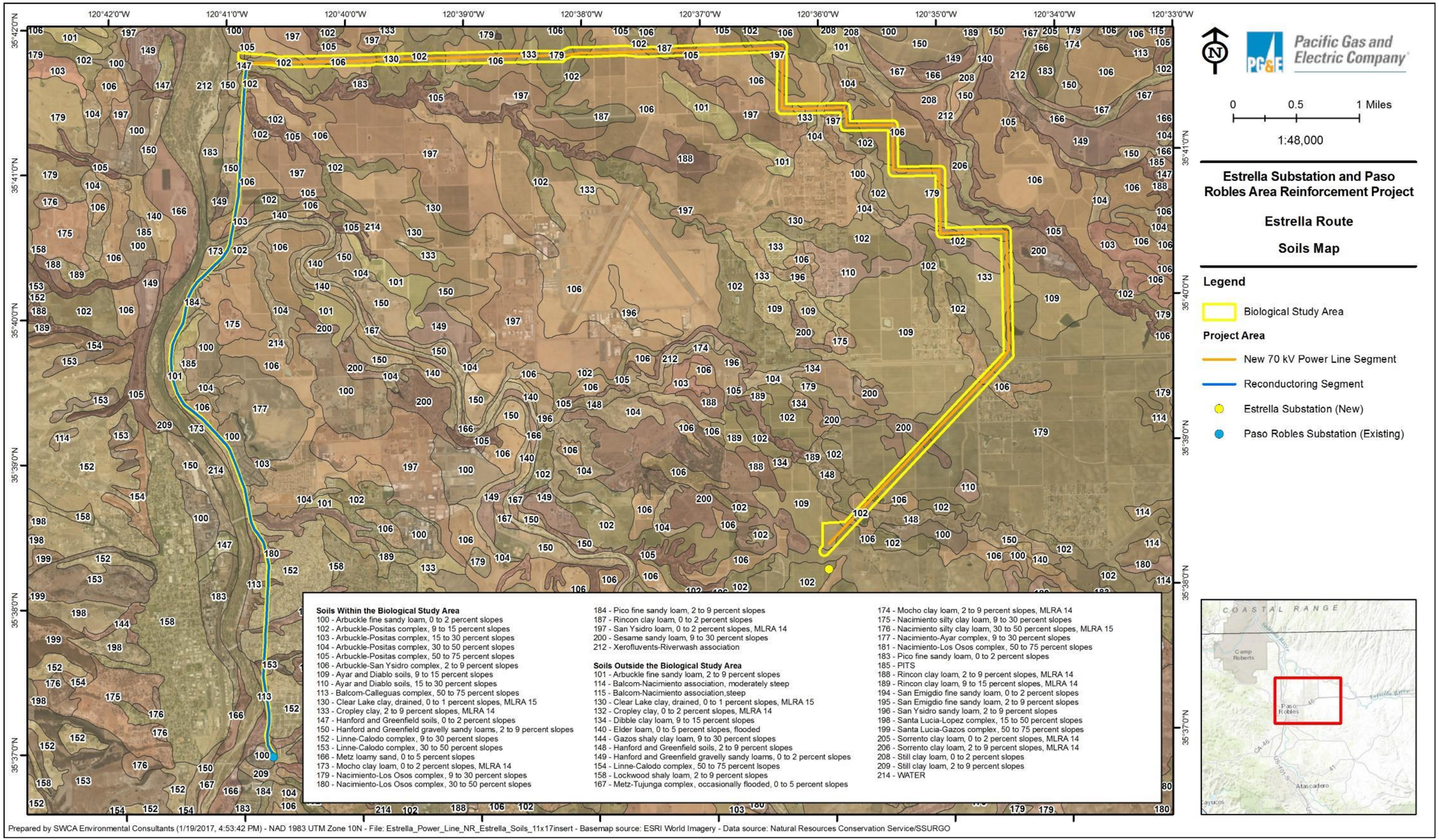
vicinity of the project is 15.2 inches with approximately 90% of the rain falling between October and April. Average monthly rainfall in the summer months is significantly lower than the winter months, only averaging about 0.2 inches per month between May and September. The above temperature and precipitation 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 0.3 miles west of the project for the period between 1981 and 2000 (NOAA 2016a).

4.1 Soils

Soil type descriptions were queried using Official Soil Series Descriptions (OSDs; NRCS 2016a). Site-specific soil data was queried using the USDA Web Soil Survey database (NRCS 2016b). Hydric ratings were determined using the Hydric Soils of the United States List (NRCS 2015). Soil types in the project include the following (Figure 3):

- Arbuckle fine sandy loam, 0 to 2 percent slopes
- Arbuckle-Positas complex, 9 to 15 percent slopes
- Arbuckle-Positas complex, 15 to 30 percent slopes
- Arbuckle-Positas complex, 30 to 50 percent slopes
- Arbuckle-Positas complex, 50 to 75 percent slopes
- Arbuckle-San Ysidro complex, 2 to 9 percent slopes (hydric)
- Ayar and Diablo soils, 9 to 15 percent slopes
- Ayar and Diablo soils, 15 to 30 percent slopes
- Balcom-Calleguas complex, 50 to 75 percent slopes
- Clear Lake clay, drained, 0 to 1 percent slopes, Major Land Resource Area (MLRA) 15 (hydric)
- Cropley clay, 2 to 9 percent slopes, MLRA 14 (hydric)
- Hanford and Greenfield soils, 0 to 2 percent slopes
- Hanford and Greenfield gravelly sandy loams, 0 to 2 percent slopes
- Linne-Calodo complex, 9 to 30 percent slopes
- Linne-Calodo complex, 30 to 50 percent slopes
- Metz loamy sand, 0 to 5 percent slopes (hydric)
- Mocho clay loam, 0 to 2 percent slopes, MLRA 14 (hydric)
- Nacimiento-Los Osos complex, 9 to 30 percent slopes
- Nacimiento-Los Osos complex, 30 to 50 percent slopes
- Pico fine sandy loam, 2 to 9 percent slopes
- Rincon clay loam, 0 to 2 percent slopes
- San Ysidro loam, 0 to 2 percent slopes, MLRA 14 (hydric)
- Sesame sandy loam, 9 to 30 percent slopes
- Xerofluvents-Riverwash association (hydric)

Figure 3. Soil Units Map



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Arbuckle soils are very deep, well-drained soils that are formed in alluvial materials from mainly conglomerate and metasedimentary rocks. Arbuckle soils occur on low terraces with slopes of 0 to 75 percent at elevations of 27 to 610 meters. They typically occur in dry, subhumid, mesothermal climates with hot dry summers and cool moist winters. Vegetation communities on these soils are mainly annual grasses and forbs either alone or as an understory of blue oak trees (*Quercus douglasii*). The soil is used for dryland and irrigated orchards, irrigated row and field crops, dry farmed grain, and rangeland grazing (NRCS 2016a).

Positas soils consist of deep and very deep, moderately well-drained soils that formed in alluvial material from mixed rock sources. These soils typically occur on stream terraces with slopes of 2 to 75 percent at elevations of 200 to 1,600 feet. These soils occur in dry, subhumid, mesothermal climates with hot, dry summers and cool, moist winters. Vegetation communities on these soils are typically annual grasses, forbs, and scattered oaks. The soil is used primarily for rangeland grazing, but some are also used for dryland grain crops and vineyards (NRCS 2016a).

San Ysidro soils consist of deep, moderately well-drained soils that are formed in alluvium from sedimentary rocks. These soils occur on old, low terraces with slopes of 0 to 9 percent at elevations of less than 1,500 feet. These soils occur in dry, subhumid, mesothermal climates with hot, dry summers and cool, moist winters. Vegetation communities associated with these soils are typically annual grasses and forbs. The soil is used for growing dryland grains, dryland pasture, and shallow rooted row crops (NRCS 2016a).

Ayar soils are deep or very deep, well-drained soils that are formed from weathered, decomposed alkaline shale and sandstone material. This soil type is often associated with rolling hills with slopes of 5 to 75 percent at elevations of 150 to 3,500 feet. Natural vegetation communities associated with this soil type are annual grasses and forbs with scattered blue oak, coast live oak, and white oak (*Quercus alba*). The soil is used for dry farmed grain, almond and apricot orchards, and livestock grazing (NRCS 2016a).

Balcom soils are moderately deep and well-drained soils that are formed from soft, calcareous shale and sandstone substrates. These soils typically occur on hills that have slopes of 5 to 75 percent at elevations of 200 to 2,300 feet. This soil type is associated with dry, subhumid, mesothermal climates with warm, dry summers and cool, moist winters. The natural vegetation associated with these soils is dominated by annual grasses and mustards. This soil type is commonly used for open rangeland and grasslands and is often associated with watersheds (NRCS 2016a).

Calleguas soils are typically shallow, well-drained soils that occur on exposed and eroded upland slopes and hills and are primarily formed from weathered sedimentary rock. This soil type occurs on slopes of 9 to 75 percent at elevations of 100 to 2,800 feet. The natural vegetation communities associated with this soil type are typically annual grasses and forbs with some scattered coastal sagebrush species. This soil type is commonly used for grazing and is often associated with watersheds (NRCS 2016a).

Hanford soils are typically very deep, well-drained soils that form from moderately coarse alluvium dominated by weathered granitic material. These soils are found on stream bottoms and floodplains, and in alluvial fans with slopes of 0 to 15 percent at elevations of 150 to 3,500 feet. This soil type is associated with dry, subhumid, mesothermal climates with hot, dry summers and cool, moist winters. Native vegetation occurring on this soil type is typically annual grasses and herbs. The soil is used for a wide range of agricultural cultivations including various fruit and vegetable crops (NRCS 2016a).

Nacimiento soils consist of moderately deep, well-drained soils that formed in material weathered from calcareous shale and sandstone. These soils occur on rolling uplands with slopes of 9 to 75 percent at elevations of 50 to 4,800 feet. 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 with coast live oaks (*Quercus agrifolia*) and other trees in some places. The soil is often used for rangeland grazing and dry farmed grain (NRCS 2016a).

Los Osos soils consist of moderately deep, well-drained soils that formed in material weathered from sandstone and shale. These soils occur on uplands with slopes of 5 to 75 percent at elevations of 100 to 3,500 feet. 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 mostly annual grasses and forbs with some perennial grasses, coastal sagebrush, and live oaks. The soil is typically used for rangeland grazing, but some are used for grain crops and sudangrass pasture (NRCS 2016a).

Diablo soils are typically well-drained soils that formed from weathered shale, sandstone, and consolidated sediments with minor areas of tuffaceous material. This soil type typically occurs on rolling to steep uplands with slopes 5 to 50 percent at elevations of 25 to 3,000 feet. Vegetation communities typically occurring on this soil type are annual grasses and forbs. The soil is most commonly used for grazing and for production of dry farmed grain, mainly barley (NRCS 2016a).

Clear Lake soils consist of very deep, poorly-drained soils that formed in fine textured alluvium derived from sandstone, shale, or other mixed rock sources. This soil type occurs in basins and swales of relatively level drainages, with slopes ranging from 0 to 2 percent. These soils have negligible to high runoff with slow to very slow permeability. These soils occur in small valleys of the Coast Ranges and along the San Joaquin and Sacramento Valleys where there is a dry, subhumid climate of relatively hot summers and cool, moist winters. Native vegetation generally consists of grasses and forbs. This soil type is most commonly used for row crops, dry farmed for grain, irrigated and dry farmed pasture, and rangeland (NRCS 2016a).

Cropley soils consist of very deep, moderately well and well-drained soils that formed in fine textured alluvium weathered from shale, sandstone, and mudstone. These soils occur on alluvial fans, floodplains, and in small basins at elevations of 10 to 2,100 feet and have smooth slopes ranging from 0 to 15 percent. These soils occur in dry, subhumid, mesothermal areas with warm, dry summers and cool, moist winters. Vegetation on these soils generally consists of annual grasses and forbs with some scattered live oaks. This soil type is commonly used for irrigated row and truck crops, irrigated and dry pasture, apricots, prunes, and for urban development (NRCS 2016a).

Pico soils consist of deep, well-drained soils that form in alkaline, moderately coarse textured alluvium derived mostly from sedimentary formations. These soils occur on floodplains and alluvial fans with slopes of 0 to 9 percent at elevations of 10 to 1,500 feet. These soils occur in subhumid, mesothermal climates with warm dry summers and cool moist winters. Vegetation communities associated with these soils are annual grasses and forbs in uncultivated areas. The soil is used primarily for growing row crops, citrus, grain, and pasture, and there is increasing urban use (NRCS 2016a).

Rincon soils consist of deep, well-drained soils that formed in alluvium from sedimentary rocks. These soils occur on old alluvial fans and both stream and marine terraces with slopes of 0 to 30 percent at elevation of 20 to 2,000 feet. These soils occur in subhumid, mesothermal climates with warm, dry summers and cool, moist winters. Vegetation communities associated with these soils are annual grasses and forbs. The soil is used primarily for irrigated citrus, deciduous fruits, row crops, and alfalfa, as well as some dry farming for grain and pasture (NRCS 2016a).

Greenfield soils are deep, well-drained soils that are formed from alluvium materials derived from granitic and other mixed rock sources. These soils occur within alluvial fans and terraces with slopes of 0 to 30 percent at elevations of 100 to 3,500 feet. Greenfield soils occur in dry, subhumid, mesothermal climates with hot, dry summers and cool, moist winters. This soil type is often associated with annual grasses, forbs, some shrubs, and scattered oak trees. The soil is used for irrigated fields, forage and fruit crops, and dryland grain crops (NRCS 2016a).

Linne soils are moderately deep, well-drained soils that consist largely of weathered soft shale and sandstone materials. These soils typically occur on mountainous uplands and foothills with slopes of 5 to 75 percent at elevations of 100 to 2,200 feet. Vegetation communities associated with this soil type are typically native annual grasses and forbs, live oak woodlands, and coastal sage scrub. These soils are often farmed for grain crops and almond orchards (NRCS 2016a).

Calodo soils are shallow, well-drained soils that consist of calcareous shale and sandstone material. These soils occur in uplands with slopes of 15 to 75 percent at elevations from 500 to 2,500 feet. Vegetation associated with this soil type is primarily live oak woodlands, a mixture of toyon and manzanita, and an understory of annual grasses. The soil is often used for dryland grain crops (NRCS 2016a).

Metz soils are very deep, excessively-drained soils that consist of alluvial material derived primarily from sedimentary rock and some other mixed rock material. This soil type typically occurs in floodplains and alluvial fans with slopes of 0 to 15 percent and at elevations of 25 to 2,500 feet. Vegetation communities associated with this soil type generally consist of willows, annual grasses, and forbs. Cultivation on this soil type is typically irrigated pasture, hay, truck crops, field crops, and fruit crops (NRCS 2016a).

Mocho soils are typically deep, well-drained soils that consist largely of alluvium materials derived from sandstone and shale rock. This soil type is found in alluvial fans that have slopes of 0 to 9 percent at elevations between 20 to 3,500 feet. Vegetation communities associated with this soil type are typically annual grasses and forbs. This soil type is often intensively used for grain crops, forage, field, and some fruit crops (NRCS 2016a).

Sesame soils consist of moderately deep, well-drained soils formed from weathered granitic, quartz diorite, gabbrodiorite, and metamorphic rocks. This soil type is often found in foothills and mountainous uplands with slopes of 0 to 75 percent. This soil type occurs in subhumid, mesothermal climates with warm, dry summers and cool, moist winters. Vegetation communities associated with sesame soils are primarily annual grasses and forbs with scattered blue oak, live oak, and shrubs. This soil type is primarily used for grazing, as well as growing small grains (NRCS 2016a).

Xerofluvents are somewhat excessively-drained soils that occur in floodplains with 0 to 2 percent slopes at an elevation of 600 to 1,500 feet. These soils are often comprised of sand, stratified gravel, sandy loam, and gravelly loam materials, and are not considered prime farmland (NRCS 2016b).

Riverwash are soils that occur in river channels at slopes of 0 to 2 percent and are comprised entirely of sandy material. These soils occur at an elevation of 600 to 1,500 feet and are not considered prime farmland (NRCS 2016b).

4.2 Habitats and Natural Communities

4.2.1 Critical Habitat

The BSA is located within federally designated critical habitat Unit 29C for vernal pool fairy shrimp (*Branchinecta lynchi*) (USFWS 2006b, 2016a) (Figure 4). Federally designated vernal pool fairy shrimp critical habitat Unit 29C, Central Coast Ranges, is located in San Luis Obispo County, northeast of Paso Robles. Vernal pool fairy shrimp are known to currently occupy this region. Unit 29C contains the following habitat constituents that are required to support this species: mound and inter-mound topography within a matrix of surrounding upland habitat, which provide for cyst dispersal and adequate pool hydroperiods, and vernal pool wetland features within a matrix of upland habitat, which provide for food, shelter, hatching, growth, and reproduction (USFWS 2006b).

The new 70 kV power line segment and the northern most 1.4 miles of the reconductoring segment are located within critical habitat Unit 29C (Figure 4). Habitat constituents required for the growth and survival of vernal pool fairy shrimp were observed in the BSA, including potentially suitable seasonal wetlands and detention basins with adjacent upland habitat. Additional detail regarding vernal pool fairy shrimp and associated habitat is provided in Section 4.4.2, Special-Status Animals, below.

In addition, federally designated steelhead (*Oncorhynchus mykiss*; federally threatened) critical habitat (Evolutionary Significant Unit [ESU] for South-Central California Coast steelhead in Salinas Hydrologic Unit 3309, Paso Robles Hydrologic Sub-area 330981) occurs along Salinas River approximately 200 feet west of the project. Primary constituent elements for steelhead critical habitat include: (1) freshwater spawning sites, (2) freshwater rearing sites, (3) freshwater migration corridors, and (4) estuarine areas (NOAA 2005). No steelhead critical habitat or primary constituent elements required to support this species occur in the BSA (Figure 4).

4.2.2 Vegetation Communities

The landscape within and surrounding the BSA is composed of a mosaic composition of blue oak woodlands, nonnative grasslands, agricultural, Central Coast cottonwood-sycamore riparian forest, coastal and valley freshwater marsh, sandy wash, ruderal, and urban/disturbed areas. Urban and agricultural landscape consisting of vineyards and cultivated forage crops comprise a large portion of the BSA. Of the vegetation communities present, three (blue oak woodland, Central Coast cottonwood-sycamore riparian forest, and coastal and valley freshwater marsh) are considered sensitive communities under the City of El Paso De Robles General Plan (Rincon Consultants, Inc. 2003). Similarly, four vegetation communities observed in the BSA (blue oak woodlands, sandy wash, Central Coast cottonwood-sycamore riparian forest, and coastal and valley freshwater marsh) are considered sensitive by CDFW. The following sections provide descriptions of vegetation communities that were observed in the BSA. Appendix E illustrates the vegetation communities traversed by the project.

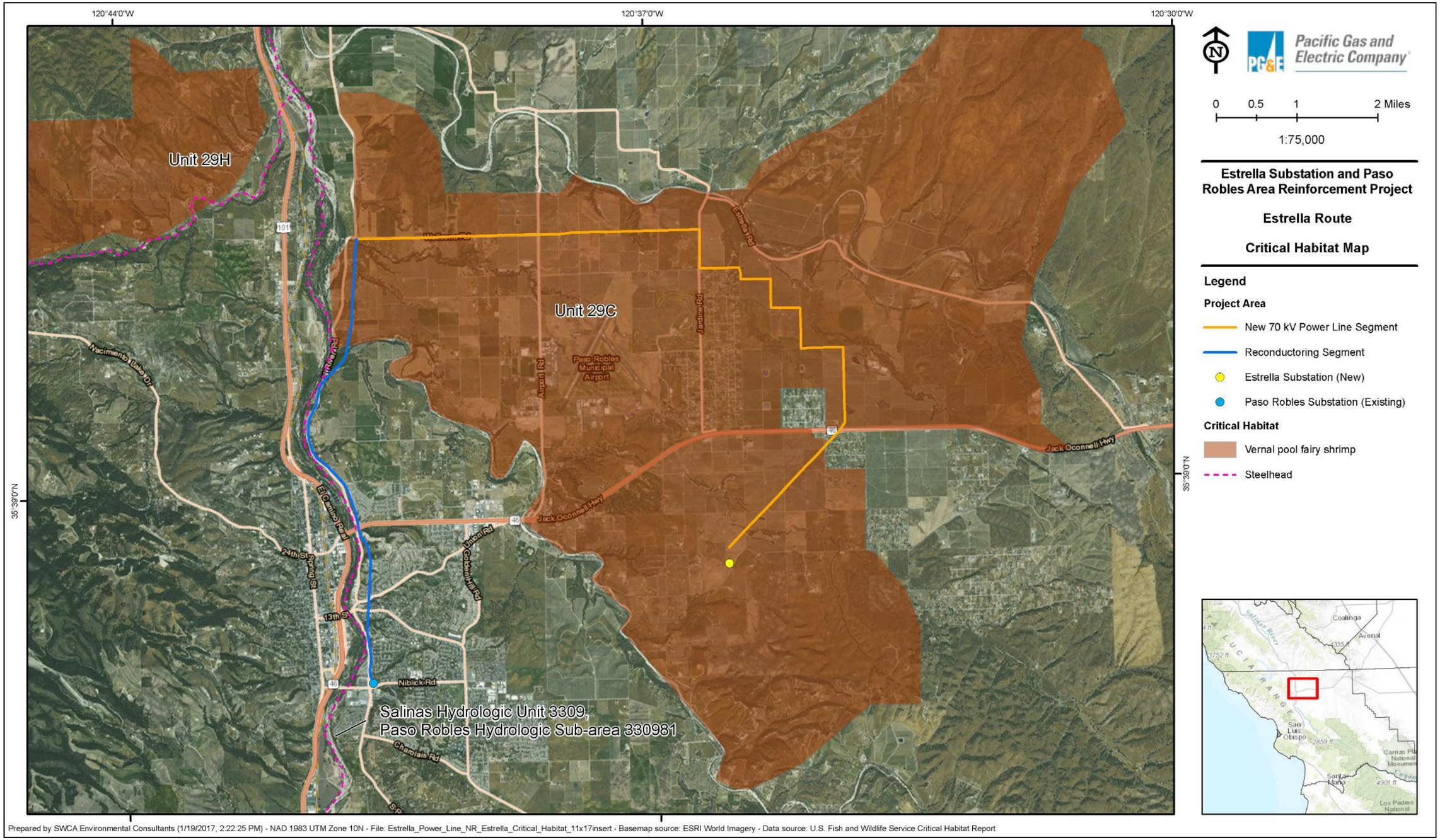
4.2.2.1 BLUE OAK WOODLAND

Blue oak woodlands are typically dominated by blue oak trees, yet often include other oak species as well as 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). Approximately 25 acres of blue oak woodland was observed throughout the BSA, and was the dominant vegetation community along drainage channels (Appendix E). Blue oak woodlands in the BSA frequently contained a relatively open canopy and an understory of nonnative grasses and forbs, with more dense stands occurring along riparian areas. Interspersed stands of valley oak trees (*Quercus lobata*) were observed throughout the blue oak woodlands in the BSA. Approximately 550 oak trees greater than 6 inches in diameter at breast height (DBH) were observed in the BSA, including a mixture of coast live oak, blue oak, and valley oak.

4.2.2.2 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).

Figure 4. Federally Designated Critical Habitat near the Project



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Approximately 117 acres of nonnative grassland habitat was observed throughout the BSA, frequently overlapping with blue oak woodlands and rural developments. Grasslands in the BSA were primarily dominated by nonnative annual grasses, including wild oats (*Avena* spp.), barley (*Hordeum* spp.), and ripgut brome, with interspersed patches of native species such as purple needle-grass (*Stipa pulchra*) and nodding needle-grass (*S. cernua*). Several areas of nonnative grasslands observed throughout the BSA are subject to frequent mowing or grading.

4.2.2.3 AGRICULTURAL

Agricultural habitat is identified by active cultivation and planting of crops in an area. The main form of agriculture in the BSA is grape vineyards. Agricultural areas typically provide low habitat value for sensitive plants and wildlife species. Approximately 372 acres of agricultural lands were observed in the BSA.

4.2.2.4 CENTRAL COAST COTTONWOOD-SYCAMORE RIPARIAN FOREST

Central Coast cottonwood-sycamore riparian forest consists of moderately closed broadleafed riparian forest typically dominated by Fremont's cottonwood (*Populus fremontii*) and sycamore (*Platanus racemosa*), with interspersed coast live oak with an understory of willows (*Salix* spp.), coyote brush (*Baccharis pilularis*), and stinging nettle (*Urtica dioica*). This vegetation community generally occurs along creeks and floodplains of sub-perennial streams with a fairly coarse substrate and a seasonally variable water table (Holland 1986).

Central Coast cottonwood-sycamore riparian forest is limited to a small patch (0.17 acre) along the reconductoring segment in the BSA along Salinas River, approximately 30 feet west of the project. This vegetation community extends along much of Salinas River; however, it is generally located outside of the BSA.

4.2.2.5 COASTAL AND VALLEY FRESHWATER MARSH

Coastal and valley freshwater marsh is generally dominated by perennial, emergent monocots such as cattail (*Typha* sp.) and bulrush (*Scirpus* sp.) growing in closed canopies. These areas are subject to permanent freshwater flooding or prolonged saturation, which leads to an accumulation of deep, peaty soils. This vegetation community typically occurs along the upper portion of the Sacramento-San Joaquin River Delta as well as along the coast and in coastal valleys near river mouths, lakes, and springs (Holland 1986).

A small area (0.05 acre) of coastal and valley freshwater marsh was observed in the BSA where the reconductoring segment crosses over an unnamed tributary to Salinas River. This feature was dominated by cattail (*Typha latifolia*) and contained standing water during the April 2016 field survey.

4.2.2.6 SANDY WASH

Sandy washes are comprised of sand and gravel accumulation found in riverbeds and floodplains (Anderson et al. 1976). Approximately 0.13 acre of sandy wash was observed in the BSA along a dry, ephemeral, unnamed tributary to Salinas River. With the exception of scattered blue oak trees and sparse scattered grasses and forbs, this area contained little to no vegetation between the OHWMs.

4.2.2.7 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 (i.e., weedy species of plants). Ruderal areas are typically dominated by nonnative vegetation, but some native species can also occur.

Approximately 40 acres of ruderal habitat occur within the BSA, generally occurring along roadsides, within rural and urban developments, and adjacent to agricultural areas. Species observed in ruderal areas in the BSA included but were not limited to nonnative annual grasses, poison hemlock (*Conium maculatum*), radish (*Raphanus* spp.), mustard (*Brassica* spp.), and various thistles.

4.2.2.8 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.

Approximately 55 acres of urban/developed lands occur in the BSA along and within rural and urban developments and recreational areas. Vegetation in these areas includes manicured lawns and landscaped trees and shrubs.

4.3 Drainages and Water Features

The project is located within the Huerhuero Creek, Paso Robles Creek-Salinas River, and Estrella River watersheds. These watersheds are located in the north-central portion of San Luis Obispo County. The headwaters of Huerhuero Creek occur in the Coast Ranges just south of Creston. Huerhuero Creek generally flows northwest through San Luis Obispo County and Paso Robles and crosses the reconductoring route just before its confluence with Salinas River.

In the Paso Robles Creek-Salinas River watershed, the central drainage feature is Salinas River. The river flows north-northwest through the Salinas Valley, bisecting the Coast Ranges, before draining into the Pacific Ocean nearly 100 miles northwest of the project. The reconductoring segment parallels the eastern perimeter of the Salinas River riparian corridor (Figure 5).

Estrella River forms in the foothills of the Coast Ranges, at the confluence of San Juan Creek and Cholame Creek near Shandon. The river generally flows west-northwest just north of the project, where several unnamed tributaries that bisect the northern portion of the new 70 kV power line segment drain north into Estrella River. Estrella River eventually drains into Salinas River just south of San Miguel.

The project crosses several other unnamed drainages that eventually flow into Huerhuero Creek, Salinas River, and/or Estrella River. Refer to Appendix D for watershed boundaries and water feature data mapped on the NWI (USFWS 2016b) and USGS National Hydrography Dataset (USGS 2016a). Refer to Appendix E for potentially jurisdictional waters of the State and United States that were mapped during the April 2016 field surveys. A more in-depth discussion of potentially jurisdictional waters within the BSA is provided below.

4.3.1 Jurisdictional Waters

In the BSA, Salinas River, Huerhuero Creek, several unnamed natural drainages, and wetland features were identified during reconnaissance-level field assessments (Appendix E). A formal jurisdictional delineation report has not been prepared at this time for this project.

4.3.1.1 USACE JURISDICTIONAL WETLANDS AND OTHER WATERS

Salinas River, Huerhuero Creek, and 11 other unnamed ephemeral drainages may be subject to USACE jurisdiction (Appendix E). These features contained an OHWM and a connection to downstream waters of the United States. In addition, freshwater marsh habitat observed within an unnamed drainage along the reconductoring segment was preliminarily mapped during the April 2016 field surveys (Appendix E). Based

on the presence of hydrophytic vegetation, wetland hydrology, hydric soils, and a nexus to waters of the United States, this feature may also be subject to USACE jurisdiction. Other drainage and wetland features observed in the BSA either: a) did not exhibit an OHWM, b) did not have an apparent connection to downstream waters of the United States, or c) did not meet the definition of a USACE jurisdictional wetland, and are therefore are not generally considered jurisdictional by the USACE.

4.3.1.2 CDFW JURISDICTIONAL WATERS

Salinas River, Huerhuero Creek, and 11 other unnamed ephemeral drainages may also be subject to CDFW jurisdiction (Appendix E). These features contained defined bed and banks.

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 reconnaissance-level surveys. All plants and wildlife encountered during reconnaissance-level surveys were recorded. A complete list of 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 12 USGS 7.5-minute topographic quadrangles at and surrounding the project. Local expert botanist, Dr. Dave Keil, 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 CDFW's Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities (2009), which were likely to occur in the BSA based on site-specific conditions (soils, geology, topography, elevation, and associated plant communities). The field surveys were floristic in nature, identifying each plant to the taxonomic level. Surveys were conducted in April 2016 following a season of good rainfall (approximately 88% of the average) (City of El Paso de Robles 2016), providing optimal conditions for the detection of rare plants. The surveys captured the bloom period for the majority of the species on the target list. Additional botanical surveys conducted over a range of bloom periods may be necessary to better determine presence or absence of special-status plant species in the BSA.

No federal, state, or CRPR 1 or 2 listed special-status plant species were observed in the BSA. Elegant buckwheat (*Eriogonum elegans*; CRPR 4.3), was observed in April 2016 within the BSA along the southern bank of the driveway to 800 Clubhouse Drive, approximately 2.8 miles north of Paso Robles Substation. CRPR 4 listed species do not require evaluation for impact significance during preparation of environmental documents relating to CEQA. Furthermore, this species is not considered to be locally significant; therefore, this species is not address further in this report. A complete list of plants identified during the surveys is located in Appendix A, Flora Compendium.

A total of 53 special-status plants and one natural community (valley oak woodland) have occurrence records within the 12 USGS 7.5-minute topographic quadrangles at and surrounding the project. Two federally listed species (Santa Lucia purple amole [*Chlorogalum purpureum* var. *purpureum*] and spreading navarretia [*Navarretia fossalis*]) were identified in the records search; however, their known range occurs outside of the BSA or had outdated records with no known occurrences in the region (D. Keil, personal communication, June 3, 2016). These species were therefore determined to be unlikely to occur in the BSA. No other federally or state listed species were returned in the records search.

Due to site-specific conditions, it was determined 1 plant is likely to occur, 13 plants have potential to occur (Table 1), and 4 plants are unlikely to occur within the BSA. The remaining 35 plants and 1 natural community were determined to be absent from the BSA either because 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 or community. Species that were determined to be unlikely to occur (Indian Valley spineflower [*Aristocapsa insignis*], Santa Lucia purple amole, spreading navarretia, and Santa Cruz microseris [*Stebbinsoseris decipiens*]) or were absent from the BSA are not discussed further in this report. Species that were determined to be likely to occur or have potential to occur within the BSA are discussed below. Special-status plant species occurrences recorded in the CNDDB (CDFW 2016a) are depicted in Figure 5.

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

Common Name *Scientific Name*	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.	**Likely to occur.** Nonnative grassland and blue oak woodlands may provide habitat for this species. The nearest CNDDB occurrence was recorded 4.5 miles west of the project in 2001. Species not observed in the BSA during surveys conducted outside of the appropriate season.
round-leaved filaree *California macrophylla*	--/--/CRPR 1B.1	Annual herb that occurs in open sites, scrub, vertic clay, and occasionally serpentine soils in valley grasslands and foothill woodlands. Blooming period: March–July. Elevation: <1,200 meters.	**Potential to occur.** Grassland and blue oak woodlands may provide habitat for this species. One CNDDB occurrence was recorded within 5 miles from the project in 1937. Species not observed in the BSA during surveys conducted in the appropriate season.
La Panza mariposa lily *Calochortus simulans*	--/--/CRPR 1B.3	Perennial bulbiferous herb that occurs in meadow habitats found in chaparral, valley grassland, and foothill woodland communities. Associated with sandy (often granitic) soils. Blooming period: April–July. Elevation: 380–1,150 meters.	**Potential to occur.** Grassland and blue oak woodlands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.
Hardham's evening-primrose *Camissoniopsis hardhamiae*	-- /--/CRPR 1B.2	Annual herb that is typically found in sandy soil, limestone, and disturbed oak woodland. Blooming period: March–May. Elevation: 140–945 meters.	**Potential to occur.** Sandy soils and blue oak woodlands may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.

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

Common Name *Scientific Name*	Status Federal / State / CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
San Luis Obispo owl's-clover* *Castilleja densiflora* var. *Obispoensis*	--/--/CRPR 1B.2	Annual herb that occurs in coastal grassland. Blooming period: March–June. Elevation: 10–430 meters.	**Potential to occur.** Nonnative grasslands and blue oak woodlands may provide suitable habitat for this species. The nearest CNDDB occurrence was recorded 2.34 miles northeast of the project in 2005. 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 grasslands may provide suitable habitat for this species. Three CNDDB occurrences have been recorded within 5 miles of the project between 1935 and 1960. Species not observed in the BSA during surveys conducted in the appropriate season.
straight-awned spineflower *Chorizanthe rectispina*	--/--/CRPR 1B.3	Annual herb that occurs in chaparral, cismontane woodlands, and coastal scrub. Associated with sandy or gravelly soils. Blooming period: April–July. Elevation: 85–1,035 meters.	**Potential to occur** Sandy soils along Huerhuero Creek and other unnamed drainages may provide suitable habitat for this species No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.
Hall's tarplant *Deinandra halliana*	--/--/CRPR 1B.1	Annual herb that occurs in grasslands, open slopes, sink edges, vertic clay, rarely serpentine. Blooming period: April–May. Elevation 260–1,000 meters.	**Potential to occur.** Nonnative grasslands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.

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

Common Name *Scientific Name*	Status Federal / State / CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
yellow-flowered eriastrum *Eriastrum luteum*	--/--/CRPR 1B.2	Annual herb that occurs in broadleafed upland forest, chaparral, and foothill woodland on drying slopes. Associated with sandy or gravel soils. Blooming period: May–June. Elevation: < 1,000 meters.	**Potential to occur** Blue oak woodlands and sandy soils along the Huerhuero Creek may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted outside of the appropriate season.
Temblor buckwheat *Eriogonum temblorense*	--/--/CRPR 1B.2	Annual herb that occurs in valley grassland. Associated with sandy soils. Blooming period: April–September. Elevation: 300–1,000 meters.	**Potential to occur.** Nonnative grassland and blue oak woodlands may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.
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. Fruiting period: April–August. Elevation: 300–2040 meters.	**Potential to occur.** Wetland features and drainage channels observed throughout the BSA may provide habitat for this species. Two CNDDB occurrences were recorded 3.16 (1958) and 5.30 (2001) miles from the project. Species not observed in the BSA during surveys conducted in the appropriate season.
pale-yellow layia *Layia heterotricha*	--/--/CRPR 1B.1	Annual herb that occurs in cismontane, pinyon and juniper woodland, coastal scrub, and valley and foothill grassland. Associated with open clay or sandy, sometimes +/- alkaline soils. Blooming period: April–June. Elevation: 200–1,800 meters.	**Potential to occur.** Nonnative grasslands may provide suitable habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. Species not observed in the BSA during surveys conducted in the appropriate season.

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

Common Name *Scientific Name*	Status Federal / State / CRPR[2]	Habitat Associations[3]	Likelihood to Occur in the BSA
woodland woollythreads* *Monolopia gracilens*	--/--/CRPR 1B.2	Annual herb that occurs 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 for this species. One CNDDB occurrence was recorded 2.42 miles southwest of the project in 1957. Species not observed in the BSA during surveys conducted in the appropriate season.
shining navarretia* *Navarretia nigelliformis* ssp. *radians*	--/--/CRPR 1B.2	Annual herb that occurs in vernal pools and clay depressions in cismontane woodland and valley and foothill grassland. Blooming period: April–July. Elevation: 76–1,000 meters.	**Potential to occur.** Wetland features may provide habitat for this species. Four CNDDB occurrences have been recorded within 5 miles of the project between 2000 and 2014, with the nearest record 1.24 miles west (2014). Species not observed in the BSA during surveys conducted in the appropriate season.
prostrate vernal pool navarretia *Navarretia prostrata*	--/--/CRPR 1B.1	Annual herb that occurs in alkaline floodplains in vernal pools. Blooming period: April–July. Elevation: <1,210 meters.	**Potential to occur.** Wetland features observed in the BSA may provide habitat for this species. No CNDDB occurrences have been recorded within 5 miles of the project. 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—Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, San Miguel.
[2]Listing status based on CNDDB and CNPS data.
[3]Habitat associations and blooming periods based on the Jepson Online Interchange for California Floristics (Queried in May/June 2016).
*Occurrences recorded within 5 miles of the project.

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)

Dwarf Calycadenia

Dwarf calycadenia (*Calycadenia villosa*; CRPR 1B.1) typically occurs on rocky, dry hills, ridges, grasslands, and openings in foothill woodlands. This habitat was observed in the BSA; therefore, this species was determined to be likely to occur. One CNDDB occurrence was recorded in 2001, approximately 4.5 miles to the west. Suitable habitat for this species is present; however, surveys conducted outside of the appropriate bloom season did not detect this species in the BSA.

Round-Leaved Filaree

Round-leaved filaree (*California macrophylla;* CRPR 1B.1) is known to occur in valley grassland and foothill woodland communities similar to those observed in the BSA; therefore, it was determined this species has potential to occur. One CNDDB occurrence has been recorded within 5 miles of the project in 1937; however, the exact location of this specimen is unknown. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

La Panza Mariposa Lily

La Panza mariposa lily (*Calochortus simulans*; CRPR 1B.3) occurs in sandy soils in valley grasslands and foothill woodlands similar to those observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Hardham's Evening-Primrose

Hardham's evening-primrose (*Camissoniopsis hardhamiae*; CRPR 1B.2) is known to occur on sandy soils in oak woodlands such as those observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

San Luis Obispo Owl's-Clover

San Luis Obispo owl's clover (*Castilleja densiflora* var. *obispoensis*; CRPR 1B.2) is known to occur in grassland areas such as those observed in the BSA, therefore it was determined this species has potential to occur. The nearest CNDDB occurrence was recorded 2.34 miles northeast of the project in 2005. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

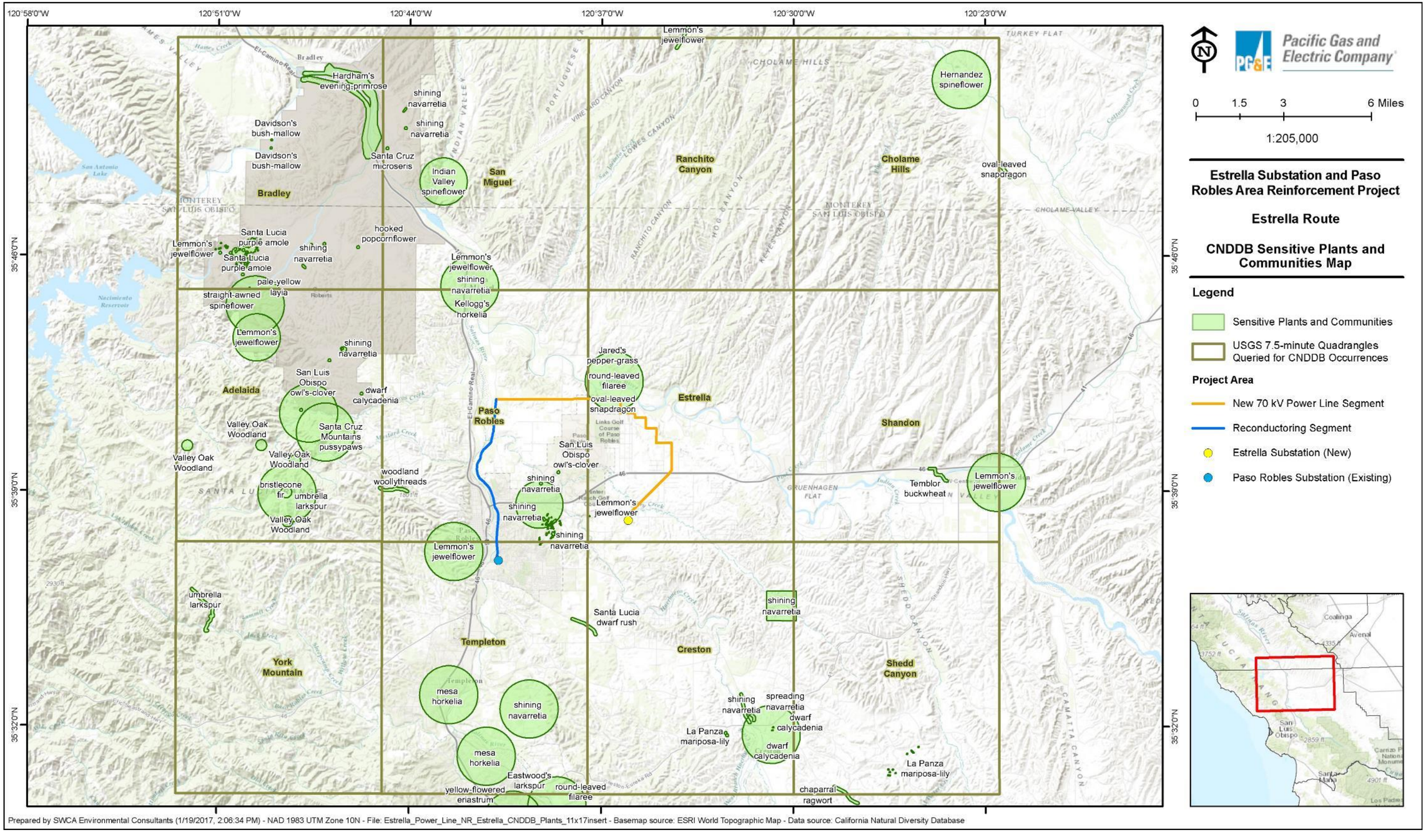
Lemmon's Jewelflower

Lemmon's jewelflower (*Caulanthus lemmonii;* CRPR 1B.2) is known to occur in grassland and scrub habitat similar to what was observed in the BSA; therefore, it was determined this species has potential to occur. Three CNDDB occurrences have been recorded within 5 miles of the project between 1935 and 1960. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Straight-Awned Spineflower

Straight-awned spineflower (*Chorizanthe rectispina*; CRPR 1B.3) is known to occur in sandy and gravelly soils such as those observed along Huerhuero Creek, unnamed drainage channels, and blue oak woodlands; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Figure 5. CNDDB Records of Sensitive Plants in the Project Vicinity



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Hall's Tarplant

Hall's tarplant (*Deinandra halliana;* CRPR 1B.1) is known to occur in grasslands and on open slopes similar to those observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Yellow-Flowered Eriastrum

Yellow-flowered eriastrum (*Eriastrum luteum;* CRPR 1B.2) is known to occur in sandy or gravelly soils in cismontane woodland on drying slopes. This habitat was observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted outside of the appropriate bloom season did not detect this species in the BSA.

Temblor Buckwheat

Temblor buckwheat (*Eriogonum temblorense;* CRPR 1B.2) generally occurs in sandy soils in valley grasslands such as those observed in the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Santa Lucia Dwarf Rush

Santa Lucia dwarf rush (*Juncus luciensis*; CRPR 1B.2) is known to occur in vernal pools, streams, and along roadsides. These cover types were observed in the BSA; therefore, it was determined this species has potential to occur. Two CNDDB occurrences were recorded 3.16 (1958) and 5.30 (2001) miles from the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Pale-Yellow Layia

Pale-yellow layia (*Layia heterotricha;* CRPR 1B.1) is known to occur in grassland areas similar to those observed throughout the BSA; therefore, it was determined this species has potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Woodland Woollythreads

Woodland woollythreads (*Monolopia gracilens*; CRPR 1B.2) is known to occur in grasslands and oak woodlands similar to those observed in the BSA; therefore, it was determined this species has potential to occur. One CNDDB occurrence was recorded 2.42 miles to the west-northwest, but this record dates back to 1957. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Shining Navarretia

Shining navarretia (*Navarretia nigelliformis* ssp. *Radians*; CRPR 1B.2) occurs in vernal pools and clay depressions such as those observed in the BSA; therefore, it was determined this species has potential to occur. Four CNDDB occurrences have been recorded within 5 miles of the project between 2000 and 2014, with the nearest record 1.24 miles west (2014). Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

Prostrate Vernal Pool Navarretia

Prostrate vernal pool navarretia (*Navarretia prostrata*; CRPR 1B.1) occurs in alkaline floodplains vernal pools and clay depressions. This habitat was observed in the BSA; therefore, this species was determined to have potential to occur. No CNDDB occurrences have been recorded within 5 miles of the project. Suitable habitat for this species is present; however, surveys conducted during the appropriate bloom season did not detect this species in the BSA.

4.4.2 Special-Status Animals

Biologists conducted reconnaissance-level surveys in the BSA 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. Reconnaissance-level surveys 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 (for example specific vocalizations of birds). Binoculars were also used to facilitate identification of species.

One special-status animal—loggerhead shrike (CDFW SSC)—was observed foraging and flying within the BSA during surveys conducted in April 2016. A complete list of wildlife identified during the surveys is located in Appendix B, Fauna Compendium. Thirty-four special-status animals have occurrence records within the 12 USGS 7.5-minute topographic quadrangles at and surrounding the project. Due to site-specific conditions, it was determined that 1 animal is present, 11 animals are likely to occur, 9 animals have potential to occur, and 6 animals are unlikely to occur within the BSA (Table 2). The remaining 7 animals were determined to be absent from the BSA based on the lack of suitable habitat or because the BSA is located outside of the species range. Species that were determined to be unlikely to occur (California tiger salamander [*Ambystoma californiense*], tricolored blackbird [*Agelaius tricolor*], California condor [*Gymnogyps californianus*], Townsend's big-eared bat [*Corynorhinus townsendii*], Tulare grasshopper mouse [*Onychomys torridus tularensis*], and Swainson's hawk [*Buteo swainsoni*]) or absent from the BSA are not discussed further in this report. Species that were determined to be present, are likely to occur, or have potential to occur within the BSA are discussed below. Special-status wildlife species occurrences recorded in the CNDDB (CDFW 2016a) are depicted in Figure 6.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA[1]

Common Name *Scientific Name*	Status Federal/ State/Other[2]	Habitat Associations	Likelihood of Occurrence
INVERTEBRATES			
vernal pool fairy shrimp* *Branchinecta lynchi*	FT/--/--	Vernal pool habitats including depressions in sandstone, to small swale, earth slump or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	**Likely to occur.** Seasonal wetlands and detention basins observed in the BSA may provide suitable habitat for this species. Three recent CNDDB occurrences (2001, 2001, and 2005) were recorded within 2 miles of the project.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA[1]

Common Name *Scientific Name*	Status Federal/ State/Other[2]	Habitat Associations	Likelihood of Occurrence
AMPHIBIANS			
California red-legged frog* *Rana draytonii*	FT/--/SSC	Semi-permanent or permanent water at least 0.5 meter deep, bordered by emergent or riparian vegetation and upland grassland, forest, or scrub habitats for refugia and dispersal.	**Potential to occur.** Suitable aquatic breeding, non-breeding, and upland habitat observed in the BSA. No CNDDB occurrences have been recorded within 5 miles of the project.
western spadefoot* *Spea hammondii*	--/--/SSC	Grasslands and valley foothill woodlands, with vernal pools that are used for breeding. Outside of breeding season, they burrow in upland areas.	**Likely to occur.** Suitable breeding and upland habitat observed in the BSA. Seven CNDDB occurrences have been recorded within 5 miles of the project.
REPTILES			
silvery legless lizard* *Anniella pulchra pulchra*	--/--/SSC	Dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.	**Potential to occur.** Suitable habitat observed in the BSA. One CNDDB occurrence (1994) was recorded 4.39 miles northwest of the project.
western pond turtle* *Emys marmorata*	--/--/SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with basking sites.	**Likely to occur.** Suitable aquatic habitat observed in the BSA; two CNDDB occurrences (2005 and 2006) were recorded within 0.4 miles of the project, near Salinas river.
San Joaquin whipsnake *Coluber flagellum ruddocki (Masticophis flagellum ruddocki)*	--/--/SSC	Chaparral and scrub habitats but will also use adjacent grassland, oak savanna, and woodland habitats; will inhabit abundant rodent burrows.	**Potential to occur.** Suitable habitat observed in the BSA. No CNDDB occurrences have been recorded within 5 miles of the project.
coast horned lizard *Phrynosoma blainvillii*	--/--/SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Likely to occur.** One coast horned lizard was observed by biologists in March 2016 approximately 0.5 mile northeast of Estrella Substation in Dry Creek. Sandy creek beds in the BSA may provide suitable habitat for this species.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA[1]

Common Name *Scientific Name*	Status Federal/ State/Other[2]	Habitat Associations	Likelihood of Occurrence
BIRDS			
golden eagle *Aquila chrysaetos*	--/--/FP; MBTA; BGEPA	Broad expanses of open country are required for foraging while nesting primarily occurs in rugged mountainous areas with large trees or on cliffs.	**Likely to occur.** Suitable nesting and foraging habitat observed in the BSA. CNDDB reports an active nest 1.7 miles northeast of the project in 2006.
burrowing owl *Athene cunicularia*	--/--/SSC; MBTA	Open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Uses rodent or other burrow for roosting and nesting cover.	**Likely to occur.** Suitable habitat observed throughout the BSA. The nearest CNDDB occurrence was recorded 5.52 miles northwest in 2004.
northern harrier *Circus cyaneus*	--/--/SSC; MBTA	Frequents meadows, grasslands, open rangeland, desert sinks, and fresh and saltwater emergent wetlands; seldom found in wooded areas.	**Likely to occur.** Suitable foraging habitat was observed in the BSA. Four sightings have been recorded between 2013 and 2016 within 1 mile of the project (eBird 2016).
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	**Likely to occur.** Suitable nesting and foraging habitat was observed in the BSA. Multiple sightings have been recorded between 1988 and 2006 within 2 miles of the project (eBird 2016).
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.	**Likely to occur.** Biologists observed one juvenile bald eagle soaring 1.6 miles east of the reconductoring segment near Golden Hill Road on June 15, 2016. In addition, six bald eagle sightings were recorded within the vicinity of the project between 2006 and 2015 (eBird 2016). Suitable nesting and foraging habitat for this species was observed in the BSA.
loggerhead shrike *Lanius ludovicianus*	--/--/SSC; MBTA	Generally occurs in open country with scattered shrubs and trees. Sit on low perches to scan for prey (rodents, lizards, birds, and insects).	**Present.** Several loggerhead shrike were observed in grassland and agricultural areas in the BSA. These individuals were observed perched on electrical power lines and foraging in the adjacent fields. Suitable nesting and foraging habitat was observed in the BSA.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA[1]

Common Name *Scientific Name*	Status Federal/ State/Other[2]	Habitat Associations	Likelihood of Occurrence
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.** Suitable nesting and foraging habitat was observed in the BSA. Two individuals were observed along the new 70 kV power line segment in 1991 near the intersection of Wellsona Road and Airport Road (eBird 2016).
yellow warbler *Setophaga petechia*	--/--/SSC; MBTA	Breed in shrubby thickets and woods near riparian areas and wetlands. Migrates south to Central and South America for the winter.	**Likely to occur.** Suitable nesting and foraging habitat exists along Salinas River that parallels the western portion of the project. Twenty-one individuals were observed approximately 0.23 mile east of the reconductoring segment in 2014 (eBird 2016).
least Bell's vireo* *Vireo bellii pusillus*	FE/SE/MBTA	Summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes with willow thickets at the edges. Requires dense groundcover (2–3 feet) for nesting and stratified canopy for foraging.	**Potential to occur.** Suitable foraging and nesting habitat was observed in the BSA along the reconductoring segment along Salinas River. The most recent CNDDB occurrence was recorded approximately 0.09 mile west-northwest of the project along Salinas River.
MAMMALS			
pallid bat *Antrozous pallidus*	--/--/SSC	True desert areas, moister oak woodlands, and redwood forests of coastal regions. At lower elevations, highly associated with oak woodlands and oak savanna.	**Potential to occur.** Potential day and night roost sites were observed within the BSA. The nearest CNDDB occurrence was recorded 3.82 miles north of the project in 2001.
Monterey dusky-footed woodrat *Neotoma macrotis luciana*	--/--/SSC	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 habitat observed within the BSA. No CNDDB occurrences have been recorded within 5 miles of the project; however, biologists observed one midden outside of the BSA along Dry Creek in March 2016, approximately 0.5 mile north of Estrella Substation.

Table 2. Sensitive Wildlife Species Potential for Occurrence within the BSA[1]

Common Name *Scientific Name*	Status Federal/ State/Other[2]	Habitat Associations	Likelihood of Occurrence
Salinas pocket mouse* *Perognathus inornatus psammophilus*	--/--/SSC	Habitat relations are not well known but literature reported habitat for *P. inornatus* on the Carrizo Plain (previously considered to include *psammophilus*) as sandy loam flats dominated by herbs and grasses.	**Potential to occur.** Limited suitable habitat observed within and adjacent to Huerhuero Creek. The nearest CNDDB occurrence was recorded 0.91 miles northwest of the project in 1918. No additional CNDDB occurrences have been recorded within 5 miles of the project.
American badger* *Taxidea taxus*	--/--/SSC	Open grassland, chaparral, and oak woodland with friable soils. Needs sufficient food and open, uncultivated ground.	**Likely to occur.** Suitable habitat present within the BSA. The most recent and nearest CNDDB occurrence was recorded 3.24 miles southwest of the project in 2003.
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; some agricultural areas.	**Potential to occur.** Suitable habitat observed within the BSA. The nearest CNDDB occurrence was recorded 1.77 mile east of the project in 1991. Eight additional CNDDB occurrences have been recorded within 5 miles of the project between 1987 and 1997.

[1]List of animal species based on CNDDB searches of USGS 7.5-minute quadrangles – Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, San Miguel.
[2]Listing status based on CDFW CNDDB State & Federally Listed Endangered & Threatened Animals of California List, April 2016.
*CNDDB occurrences recorded within 5 miles of the project.

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

Vernal Pool Fairy Shrimp

As mentioned in Section 4.2.1, critical habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) occurs along the entire new 70 kV power line segment, within the designated area known as Unit 29C, Central Coast Range Region (Figure 4). Six CNDDB occurrences have been recorded between 1995 and 2006 within 5 miles of the project. The closest occurrences were recorded in 2005, approximately 0.44 mile west of the project site near the intersection of Niblick Road and Spring Street in small depressions and pools along a gravel access road, and in 2001, approximately 1.25 and 1.76 mile northwest and west of the project. Potential vernal pool fairy shrimp habitat was observed in a seasonal wetland at the northeast corner of the intersection of North River Road and Wellsona Road, approximately 75 feet south of the point of

interconnect between the new 70 kV power line and reconductoring segments (Appendix E). This wetland is bound by paved roads to the south and west, and a steep grassy slope to the northeast. The seasonal wetland appears to receive overland flow from the irrigated agricultural area to the north and from the roadside drainage channel to the east. It is unknown how long this feature seasonally holds water or the thermal or chemical properties of the water. Records of occurrence have been documented within 5 miles of the BSA, the BSA falls within the range of the species, and habitat is present; therefore, vernal pool fairy shrimp are likely to occur in the BSA.

California Red-Legged Frog

No California red-legged frog (*Rana draytonii*) CNDDB occurrences have been recorded within 5 miles of the project. Retention ponds observed throughout the BSA and the coastal and valley freshwater marsh observed along the reconductoring segment may provide suitable aquatic breeding habitat for California red-legged frog (Appendix E). Huerhuero Creek, the Central Coast cottonwood-sycamore riparian habitat along Salinas River, and other intermittent drainages observed throughout the BSA may provide suitable aquatic non-breeding or 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 survey period, it has potential to occur based on the presence of suitable breeding and upland habitat in the BSA. However, the nearest occurrences were recorded approximately 6 miles south-southwest of the project in the Salinas River floodplain in 2003.

Western Spadefoot Toad

Seven western spadefoot toad (*Spea hammondii*) CNDDB occurrences have been recorded within 5 miles of the project. The closest occurrence was recorded in 2006 approximately 0.07 mile north of the project in a vineyard. Although this species was not observed during the field surveys, wetland features, Huerhuero Creek, Central Coast cottonwood-sycamore riparian habitat along Salinas River, and other intermittent drainages as well as nearby grasslands in the BSA may provide suitable habitat for this species. While this species was not observed during the survey period, it is likely to occur because suitable breeding and upland habitat exist in the BSA.

Silvery Legless Lizard

One silvery legless lizard (*Anniella pulchra pulchra*) CNDDB occurrence was recorded approximately 4.5 miles east of the project in 1994. Although this species was not observed during the survey period, areas with leafy debris and loose soil, including the sandbars of Huerhuero Creek, Central Coast cottonwood-sycamore riparian habitat along Salinas River, and other intermittent drainages were observed within the BSA. The BSA falls within the range of the species, suitable habitat is present, and a record of occurrence has been documented within 5 miles of the BSA; however, the record is more than 20 years old. It was therefore determined that silvery legless lizard have potential to occur in the BSA.

Western Pond Turtle

One western pond turtle (*Emys marmorata*) CNDDB occurrence was recorded 0.17 mile west of the project along Salinas River in 2006. An additional occurrence was recorded 0.34 mile west in 2005. In the BSA, western pond turtle could occur in the freshwater ponds, retention ponds, coastal and valley freshwater marsh habitat, or Central Coast cottonwood-sycamore riparian habitat along Salinas River. The species could find refugia in upland areas near these habitats. While this species was not observed during the survey period, it is likely to occur based on the presence of suitable aquatic and upland habitat and known occurrences within the vicinity of the BSA.

San Joaquin Whipsnake (Coachwhip)

No San Joaquin whipsnake (*Coluber flagellum ruddocki [=Masticophis flagellum ruddocki]*) CNDDB occurrences have been recorded within 5 miles of the project; however, an abundance of small mammal

burrows was observed throughout the BSA that may provide suitable habitat for this species. Although this species was not observed during the survey periods, San Joaquin whipsnake has potential to occur in open dry areas such as nonnative grasslands in the BSA.

Coast Horned Lizard

One coast horned lizard (*Phrynosoma blainvillii*) CNDDB occurrence was recorded 4.74 miles north of the project in 2008. Additionally, one coast horned lizard was observed by biologists in March 2016 outside of the BSA, approximately 0.5 mile northeast of Estrella Substation in Dry Creek. Sandy creek beds in the BSA, such as those observed in Huerhuero Creek and the unnamed drainage just south of the point of interconnect, may provide suitable habitat for this species. While coast horned lizard was not observed in the BSA during the survey period, the project is within the species' range and suitable habitat is present; therefore, this species is likely to occur.

Golden Eagle

One golden eagle (*Aquila chrysaetos*) CNDDB occurrence has been recorded approximately 1.7 mile northeast of the project in 2006 on the west side of Huerhuero Creek in a blue oak tree, between Golden Hill Road and Airport Road. According to the CNDDB record, a golden eagle pair has been seen nesting at this particular location for at least 15 years, and a second unoccupied nest was observed in the vicinity. In addition, multiple sightings were recorded within Paso Robles city limits between 1982 and 2015, with the closest occurrence observed along the new 70 kV power line segment at the intersection of Wellsona Road and Airport Road in 1991 (eBird 2016). Suitable nesting habitat is present within the BSA, including blue and valley oak trees as well as electrical transmission towers. No golden eagle nests were observed during the survey period; however, expansive spreads of grassland and oak woodlands within the BSA may provide quality foraging and nesting habitat for this species. Although no golden eagle were observed during the 2016 field surveys, it was determined that this species is likely to occur in the BSA due to the recent known nesting occurrence 1.7 mile north of the project and the presence of suitable nesting and foraging habitat.

Burrowing Owl

One burrowing owl (*Athene cunicularia*) CNDDB occurrence was recorded in 2004 approximately 5.5 miles northwest of the project in nonnative grassland and blue oak woodland habitat. An abundance of suitable burrows in nonnative grassland and blue oak woodlands was observed in the BSA. Although this species was not observed during the 2016 field surveys, the BSA is located within the range of the species and suitable habitat is present. It was therefore determined that burrowing owl are likely to occur in the BSA.

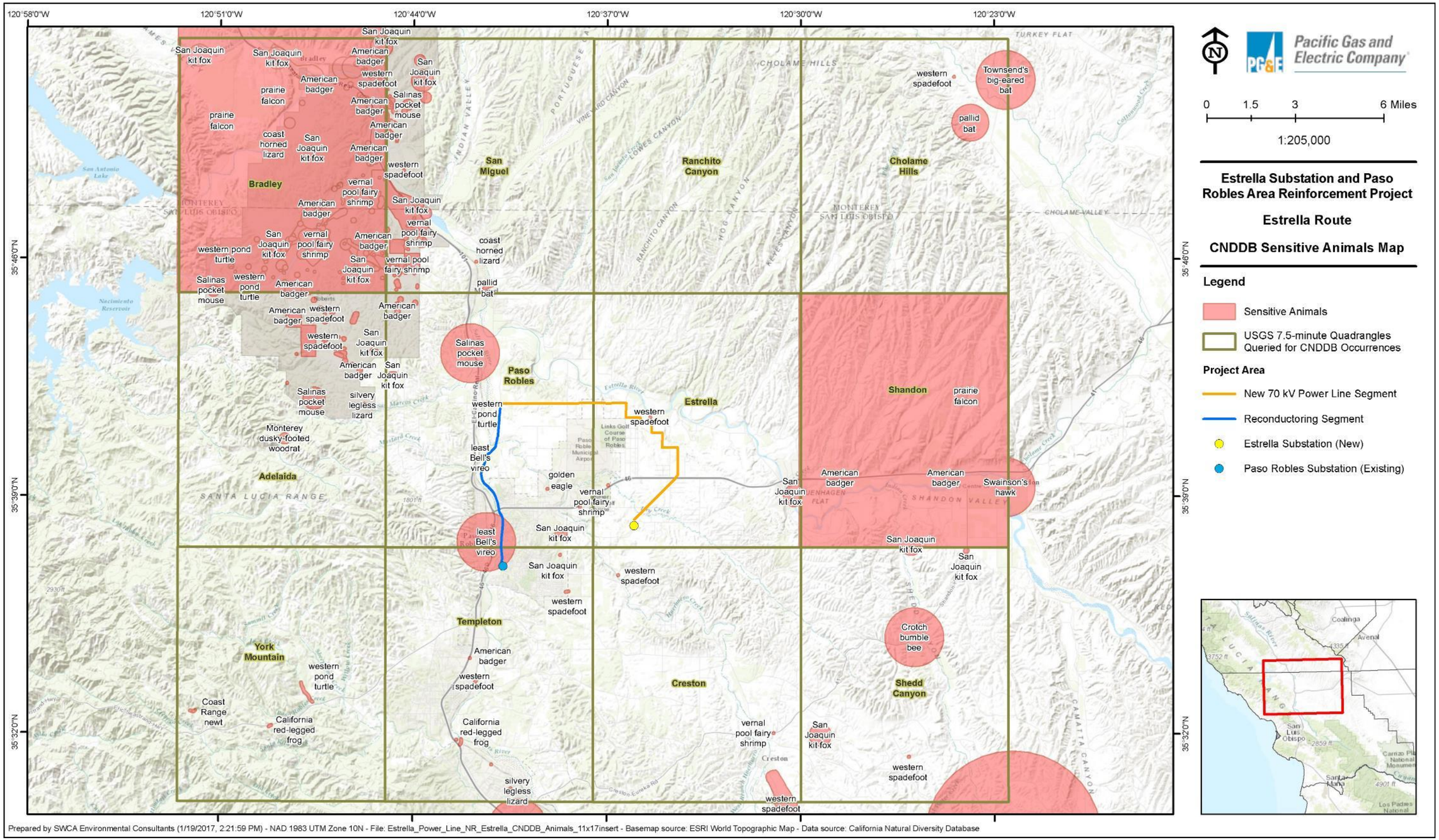
Northern Harrier

While no northern harrier (*Circus cyaneus*) CNDDB occurrences have been recorded within 5 miles of the project, four sightings have been recorded between 2013 and 2016 within 1 mile of the project, with the closest and most recent (2016) observation located at River Oaks Pond near Clubhouse Drive, approximately 1,000 feet east of the project (eBird 2016). While this species was not observed during the survey period, it is likely to occur based on the presence of suitable nesting and foraging habitat and the occurrences recorded within the vicinity of the BSA.

White-Tailed Kite

While no CNDDB occurrences have been recorded within 5 miles of the project, nine sightings have been recorded between 1988 and 2006 within 1 mile of the project. The closest and most recent observation was recorded approximately 0.5 mile west of the reconductoring segment in 2006 (eBird 2016). While this species was not observed during the survey period, it is likely to occur based on the presence of suitable nesting and foraging and the occurrences recorded in the area.

Figure 6. CNDDB Records of Sensitive Animals in the Project Vicinity



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Bald Eagle

While no CNDDB occurrences have been recorded within 5 miles of the project, six bald eagle (*Haliaeetus leucocephalus*) occurrences have been recorded within the vicinity of the project between 2006 and 2015 (eBird 2016). Biologists observed one juvenile bald eagle soaring approximately 1.6 miles east of the reconductoring segment near Golden Hill Road on June 15, 2016. Suitable nesting and foraging habitat was observed within the BSA. While this species was not observed during the survey period, it is likely to occur based on the presence of suitable foraging and the occurrences recorded in the area.

Loggerhead Shrike

Numerous loggerhead shrikes (*Lanius ludovicianus*) were observed in grassland and agricultural areas in the BSA. These individuals were observed perched on electrical power lines and foraging in the adjacent fields. Although no nesting loggerhead shrikes were observed in the BSA, suitable nesting habitat for this species was observed. Based on the observations during the 2016 reconnaissance-level surveys, this species is present in the BSA.

Purple Martin

There are no CNDDB occurrences recorded within 5 miles of the project; however, two individuals were observed along the new 70 kV power line segment at the intersection of Wellsona Road and Airport Road in 1991 (eBird 2016). While this species was not observed during the survey period, it has the potential to occur in the BSA between April and August due to the presence of suitable foraging habitat.

Yellow Warbler

While no CNDDB occurrences have been recorded within 5 miles of the project, 21 purple martin (*Progne subis*) sightings were recorded in 2014 at River Oaks Pond approximately 0.23 mile east of the project (eBird 2016). Central Coast cottonwood-sycamore riparian forest observed along Salinas River in the northwest portion of the BSA may provide suitable nesting habitat for this species. In addition, summer migrants may use woodlands within the BSA as foraging habitat. While this species was not observed during the survey period, it is likely to occur in the BSA between April and October based on the presence of suitable foraging and the occurrences recorded in the area.

Least Bell's Vireo

One least Bell's vireo (*Vireo bellii pusillus*) CNDDB occurrence was recorded approximately 0.09 mile north-northwest from the project in 2005 along Salinas River. An additional occurrence was recorded within 5 miles of the project in 1947; however, the exact location of this record is unknown. Suitable nesting and foraging habitat exists along Salinas River that parallels the western portion of the project; however, the project is outside of the riparian area. While this species was not observed during the survey period, least Bell's vireo has the potential to occur in the BSA, limited to Salinas River, between March and September.

Pallid Bat

One pallid bat (*Antrozous pallidus*) CNDDB occurrence was recorded approximately 3.82 miles north of the project in 2001 along River Road Bridge that crosses Salinas River. Blue oak woodlands and grasslands observed in the BSA may provide suitable roosting and foraging habitat for this species. While this species was not observed during the survey period, it has the potential to occur due to the presence of suitable habitat.

Monterey Dusky-Footed Woodrat

No Monterey dusky-footed woodrat (*Neotoma macrotis luciana*) CNDDB occurrences have been recorded within 5 miles of the project; however, biologists observed one midden outside of the BSA along Dry Creek in March 2016, approximately 0.5 mile north of Estrella Substation. Central Coast cottonwood-sycamore

riparian forest and riparian areas in the BSA may provide suitable habitat for this species. While this species was not observed during the survey period, it has the potential to occur because suitable habitat exists, and the BSA is within the species' range.

Salinas Pocket Mouse

One Salinas pocket mouse (*Perognathus inornatus psammophilus*) CNDDB occurrence was recorded within 5 miles of the project; however, this record dates back to 1918. Blue oak woodland and grassland areas in the BSA may provide suitable habitat for this species. While this species was not observed during the survey period, the BSA is located within the range of the species and suitable habitat is present. It was therefore determined that Salinas pocket mouse has potential to occur in the BSA.

American Badger

The most recent and nearest American badger (*Taxidea taxus*) CNDDB occurrence was recorded 3.24 miles southwest of the project in annual grassland habitat in 2003. Eight additional CNDDB occurrences have been recorded within approximately 5 miles of the project between 1997 and1999. Nonnative grasslands and blue oak woodlands observed throughout the BSA may provide suitable habitat for this species. Although this species was not observed during the survey period, suitable foraging and refuge habitat is present in nonnative grasslands within and adjacent of the project. An abundance of prey species is present within the BSA such as California ground squirrels (*Otospermophilus beecheyi*) and other small rodent species. While this species was not observed during the survey period, it is likely to occur based on the presence of suitable foraging and refuge habitat and the occurrences recorded in the area.

San Joaquin Kit Fox

Over 40 San Joaquin kit fox (*Vulpes macrotis mutica*) CNDDB occurrences were recorded in the 12-quadrangle search between 1971 and 2012, most of which have been recorded at Camp Roberts more than 8 miles to the north. One kit fox is known to have moved from Camp Roberts, approximately 12 miles northwest of the project, to the Carrizo Plain, located 40 miles southeast of the project (California State University, Stanislaus 2016). The last recorded San Joaquin kit fox occurrence in Camp Roberts was in 2004. 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. Salinas River, which bisects the Salinas River Valley and parallels the reconductoring segment of the project, is contiguous with off-site open space areas to the north and south. Huerhuero Creek, which bisects the project near its intersection with SR-46, is also connecting off-site natural open space areas to the northwest and southeast. These features may function as corridors, allowing free movement of kit fox. Deer fences observed throughout the BSA may provide migration barriers for San Joaquin kit fox throughout the BSA, especially in agricultural areas; however, there are no known significant barriers to dispersal or migration between the documented populations of San Joaquin kit fox in the Shandon Valley and Camp Roberts. The nearest occurrence was recorded approximately 1.77 miles east of the project in 1991, approximately 0.9 mile southeast of the intersection of Union Road and Golden Hill Road.

Suitable habitat for San Joaquin kit fox was observed throughout the BSA. Grassland areas and blue oak woodlands observed within the BSA contained an abundance of prey species (e.g., California ground squirrel, small mammals, ground-nesting birds, and insects) and have the potential to provide foraging habitat or natal or nonnatal den sites for San Joaquin kit fox. This species may also occur in riparian areas throughout the BSA, such as intermittent drainages, Salinas River, and Huerhuero Creek, while migrating though the area. Orchards and vineyards, similar to those observed in the BSA, have been reported to provide marginal habitat for this species due to their open structure and their underlying layer of herbaceous vegetation to support a prey base (Clark 2001; Warrick et al. 2007). No San Joaquin kit fox dens or sign of San Joaquin kit fox (e.g., tracks) were observed during the 2016 field surveys. Based on the presence of

suitable habitat and known occurrences within the region, it was determined that San Joaquin kit fox have potential to occur in the BSA.

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 freshwater emergent wetland vegetation. 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, one special-status animal—loggerhead shrike—is present in the BSA. In addition, 18 special-status plant species and 26 additional special-status wildlife species were determined to be either likely to occur, have potential to occur, or unlikely to occur. There is also high potential for avian species to nest in the BSA during the typical nesting season (February 1–August 31). The BSA is located in federally designated vernal pool fairy shrimp critical habitat and suitable habitat for this species was observed within the BSA.

Salinas River, Huerhuero Creek, and 11 other unnamed ephemeral drainages were observed throughout the BSA. In addition, freshwater marsh habitat in an unnamed drainage was preliminarily mapped within the BSA. This feature may be subject to USACE, CDFW, and/or RWQCB jurisdiction. Drainage features may also serve as wildlife migration corridors for dispersal of species between local areas and at larger scales between regions.

6 REFERENCES

Anderson, J.R., E.E. Hardy, J.T. Roach, and R.E. Witmer. 1976. *A Land Use and Land Cover Classification System for Use with Remote Sensor Data.* US Geological Professional Paper 964, 28 pp. Available at: http://www2.bren.ucsb.edu/~fd/gap/data/cnddb/11730.html. Accessed June 2016.

Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006.* Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA

_____. 2012. *Reducing Bird Collisions with Power Lines: The State of the Art in 2012.* Edison Electric Institute and APLIC. Washington, D.C.

Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service (APLIC and USFWS). 2005. *Avian Protection Plan (APP) Guidelines.* Edison Electric Institute, APLIC, and the USFWS.

American Ornithologists' Union (AOU). 2015. *Checklist of North and Middle American Birds*. Available at: http://checklist.aou.org/. Accessed June 2016.

Babcock, K.W. 1995. Home range and habitat use of breeding Swainson's Hawks in the Sacramento Valley of California. *Journal of Raptor Research* 29:193–197.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.). 2012. *The Jepson Manual: Vascular Plants of California*. Second edition. University of California Press, Berkeley.

Bolster, B.C. 2010. Report to the Fish and Game Commission: A Status Review of the California Tiger Salamander (*Ambystoma californiense*). State of California Natural Resources Agency Department of Fish and Game, Wildlife Branch Nongame Wildlife Program Report 2010-4. January 11, 2010.

Brylski, P.V. 1998. Salinas pocket mouse, *Perognathus inornatus psammophilus*. Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed., 1998. Draft Final Report prepared for the California Department of Fish and Game.

Burrowing Owl Conservation Network. 2016. Burrowing Owl Facts. Available at: http://burrowingowlconservation.org/burrowing_owl_facts/. Accessed June 2016.

California Department of Fish and Wildlife (CDFW). 2009. *Protocol for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Communities*. Surveying and Monitoring Protocols and Guidelines. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html. Accessed April 2016.

_____. 2014. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. Sacramento, CA. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155. Accessed June 2016.

_____. 2016a. California Natural Diversity Database (CNDDB) RareFind3. CDFW 2003, as updated 2016.

_____. 2016b. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383 . Accessed June 2016.

_____. 2016c. Special Animals List. 126 pp. April 2016. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline. Accessed June 2016.

_____. 2016d. Life history accounts for species in the California Wildlife Habitat Relationships System (CWHRS). California Interagency Wildlife Task Group. CWHRS Version 9.0. Available at: http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx. Accessed June 2016.

California Herps 2000–2016. California Herps: A Guide to the Amphibians and Reptiles of California. Available at: http://www.californiaherps.com. Accessed May and June 2016.

_____. 2013. Northern California Legless Lizard – *Anniella pulchra.* Available at: http://www.californiaherps.com/lizards/pages/a.pulchra.html. Accessed June 2016.

_____. 2016a. Blainville's Horned Lizard – *Phrynosoma blainvillii.* Available at: http://www.californiaherps.com/lizards/pages/p.blainvillii.html. Accessed June 2016.

_____. 2016b. Western Spadefoot – *Spea hammondii.* Available at: http://www.californiaherps.com/frogs/pages/s.hammondii.html#moreinfo. Accessed March 2016.

California Native Plant Society (CNPS). 2016. *Inventory of Rare and Endangered Plants* (online edition, v8-02). California Native Plant Society Rare Plant Program, Sacramento, CA. Available at: http://www.rareplants.cnps.org. Accessed June 1, 2016.

California State University, Stanislaus. 2016. Endangered Species Recovery Program: San Joaquin Kit Fox (*Vulpes macrotis mutica*). Available at: http://esrp.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=chapter02L00.html. Accessed June 2016.

City of Paso Robles. 2002. Ordinance No. 835 N.S. An Ordinance of the City of El Paso de Robles. Amending Section 10.01 et seq. and Related Provisions of the Municipal Code (Municipal Code Amendment 2001-001-OAK TREES). Available at: http://www.prcity.com/government/departments/commdev/planning/pdf/OakTreeOrd.pdf. Accessed June 2016.

_____. 2016. Rainfall Totals. City of Paso Robles Public Works Department. Available at: http://www.prcity.com/government/departments/publicworks/water/rainfall.asp. Accessed July 2016.

Clark, Jr., H.O. 2001. Endangered San Joaquin Kit Fox and Non-Native Red Fox: Interspecific Competitive Interactions. M.S. thesis, California State University, Fresno, California.

County of San Luis Obispo. 2003. *Oak Woodlands Management Plan.* Prepared by the Native Tree Committee of San Luis Obispo County. Autumn 2003. Available at: http://ucanr.edu/sites/oak_range/files/60623.pdf. Accessed June 2016.

_____. 2006. *Federal and State Regulations Guide to the San Joaquin Kit Fox*. San Luis Obispo County Planning and Building Department. Available at: http://www.slocounty.ca.gov/Assets/PL/environmental/Kit+Fox+Regulation+Brochure.pdf. Accessed June 2016.

_____. 2010. *County of San Luis Obispo General Plan: Conservation and Open Space Element.* San Luis Obispo County Department of Planning and Building. Available at: http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf. Accessed June 2016.

Cornell University. 2015. All About Birds. The Cornell Lab of Ornithology. Available at: https://www.allaboutbirds.org/. Accessed June 2016.

East Contra Costa County Habitat Conservancy. 2006. Western Pond Turtle (*Clemmys marmorata*). *East Contra Costa County Habitat Conservation Plan:* Species Accounts. Available at: http://www.co.contra-costa.ca.us/depart/cd/water/hcp/archive/final-hcp/pdfs/apps/AppD/10a_pondturtle_9-28-06_profile.pdf. Accessed June 2016.

eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: http://www.ebird.org. Accessed June 2016.

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California*. Nongame-Heritage Program, The Resources Agency, California Department of Fish and Game, Sacramento. 156 pp

Jennings M.R., and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California.* Prepared for California Department of Fish and Game Inland Fisheries Division. Rancho Cordova, California.

Jones & Stokes Associates, Inc. 1990. *Draft Environmental Impact Report/Environmental Impact Statement: Salinas Valley Seawater Intrusion Program.* 3D-23 pp.

Kus, B. 2002. Least Bell's Vireo (*Vireo bellii pusillus*). *In* The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight. Available at: http://www.prbo.org/calpif/htmldocs/riparian_v-2.html. Accessed June 2016.

McGahan, Jerome. 1966. Ecology of the golden eagle. Theses, Dissertations, Professional Papers. Paper 6571.

National Atmospheric and Oceanic Administration (NOAA). 2005. *Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionary Significant Units of Pacific Salmon and Steelhead in California; Final Rule.* Federal Register 70(170). September 2, 2005.

_____. 2013. *South-Central California Steelhead Recovery Plan*. NOAA West Coast Region, National Marine Fisheries Service. Long Beach, California.

_____. 2016a. National Weather Service Forecast Office-NOWData – NOAA Online Weather Data. Monthly Climate Normals (1981-2010)-Paso Robles. Available at: http://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed June 2016.

_____. 2016b. *Steelhead Trout (Oncorhynchus mykiss*). Available at: http://www.fisheries.noaa.gov/pr/species/fish/steelhead-trout.html. Accessed June 2016.

Nowak, R.M. 2005. *Walker's Carnivores of the World*. Baltimore: Johns Hopkins Press.

Rahme, A.H., A.S. Harestad, and F.L. Bunnell. 1995. *Status of the badger in British Columbia*. Wildlife working report WR-72. Wildlife Branch, British Columbia Ministry of Environment, Lands and Parks, Victoria, British Columbia.

Rincon Consultants, Inc. 2003. *City of El Paso de Robles General Plan: Conservation Element.* Available at: http://www.prcity.com/government/departments/commdev/planning/general-plan-final.asp. Accessed June 2016.

_____. 2006. *City of El Paso de Robles Chandler Ranch Area Specific Plan Environmental Impact Report. Volume 1 of 2: EIR Analysis.* Submitted to City of El Paso de Robles. May 2006. Available at: http://www.prcity.com/government/departments/commdev/planning/chandler-ranch_FEIR.asp. Accessed June 2016.

Rolstad J. 1991. Consequences of forest fragmentation for the dynamics of bird populations: conceptual issues and the evidence. *Biological Journal of the Linnean Society* 42: 149–163.

U.S. Army Corps of Engineers (USACE). 2008. *A Field Guide to the Identification of Ordinary High Water Mark (OHWM) in the Arid West Region of the United States*. Robert W. Lichvar and Shawn M. McColley (editors). Hanover, New Hampshire: ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center.

———. 2016. *National Wetland Plant List (NWPL), Arid West Region*. Washington, DC.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2015. Hydric Soils of the United States. December 2015. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed July 2016.

_____. 2016a. Official Soil Series Descriptions. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Available at: https://soilseries.sc.egov.usda.gov/osdname.aspx. Accessed June 2016.

_____. 2016b. Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed June 2016.

U.S. Fish and Wildlife Service (USFWS). 1996. *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California.* Sacramento, California.

_____. 1999. *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance.* Prepared by the Sacramento Fish and Wildlife Office. June 1999. Available at: https://www.fws.gov/ventura/docs/species/protocols/sjkf/sanjoaquinkitfox_protection.pdf. Accessed June 2016.

———. 2002. *Recovery Plan for the California Red-legged Frog (Rana aurora draytonii).*Portland, Oregon: U.S. Fish and Wildlife Service.

_____. 2003. Migratory Bird Permit Memorandum. Available at: https://www.fws.gov/policy/m0208.pdf. Accessed June 2016.

_____. 2005. *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. Portland, Oregon.

_____. 2006a. 5 year review of Least Bell's Vireo (*Vireo bellii pusillus*). Carlsbad Fish and Wildlife Office, Carlsbad, California. September 2006. Available at: https://www.fws.gov/carlsbad/SpeciesStatusList/5YR/20060926_5YR_LBV.pdf. Accessed March 16, 2016.

_____. 2006b. *Critical Habitat Designation for 4 Vernal Pool Crustaceans and 11 Vernal Pool Plants*. Federal Register Notice 71 FR 7118. February 10, 2006.

_____. 2007. *Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) 5-Year Review: Summary and Evaluation*. Sacramento, California.

_____. 2016a. USFWS Critical Habitat Portal. Available at: http://criticalhabitat.fws.gov/. Accessed June 2016.

_____. 2016b. National Wetlands Inventory, Geographic Information Systems (GIS) Layers. Available at: http://atlas.ca.gov/. Accessed April 2016.

_____. 2016c. Species List. Available at: https://ecos.fws.gov/ipac/. Accessed June 3, 2016.

U.S. Geological Survey (USGS). 2016a. National Hydrography Dataset. Available at: http://nhd.usgs.gov/data.html. Accessed June 2016.

_____. 2016b. Bradley, Adelaida, York Mountain, Estrella, Paso Robles, Templeton, Creston, Shedd Canyon, Shandon, Cholame Hills, Ranchito Canyon, and San Miguel 7.5-minute Series Topographic Quadrangles. Washington, DC: United States Department of the Interior.

Upper Salinas-Las Tablas Resource Conservation District. 2013. *Estrella River Watershed*. Available at: http://us-ltrcd.org/wp-content/uploads/2012/08/Estrella-River-Estrella-River-Watershed.pdf. Accessed April 13, 2016.

Warrick, G.D., H.O. Clark, Jr., P.A. Kelly, D.F. Williams, and B.L. Cypher. 2007. Use of agricultural lands by San Joaquin kit foxes. *Western North American Naturalist* 67:270–277.

White, P.J., and K. Ralls. 1993. *Reproduction and spacing patterns of kit foxes relative to changing prey availability.* Journal of Wildlife Management. 57(4):861–867.

Wiens, J.A. 1995. Landscape mosaics and ecological theory. Pages 1-26 in L. Hansson, L. Fahrig, and G.Merriam, editors. *Mosaic landscapes and ecological processes*. Chapman and Hall, London, UK.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988–1990. *California's Wildlife*. Volumes I–III. California Department of Fish and Game. Sacramento, California.

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Appendix A.
Flora Compendium

Table A-1. Flora Compendium

Scientific Name*	Common Name	Native	Species Status
GYMNOSPERMS			
Pinaceae	**Pine family**		
Pinus pinea	Italian stone pine	No	
Taxodiaceae	**Bald cypress family**		
Sequoia sempervirens	coast redwood	Yes	
ANGIOSPERMS (DICOTS)			
Agavaceae	**Agave Family**		
Chlorogalum pomeridianum var. *pomeridianum*	common soaproot	Yes	
Aizoaceae	**Fig-marigold family**		
Carpobrotus chilensis	ice plant	No	
Amaranthaceae	**Amaranth family**		
Amaranthus albus	tumbleweed	No	
Amaranthus retroflexus	green amaranthus	No	
Anacardiaceae	**Sumac family**		
Rhus aromatic	skunkbrush	Yes	
Rhus integrifolia	lemonaid berry	Yes	
Rhus ovate	sugar brush	Yes	
Schinus molle	Peruvian pepper tree	No	
Toxicodendron diversilobum	poison oak	Yes	
Apiaceae	**Carrot family**		
Anthriscus caucalis	bur chivel	No	
Amaranthus albus	tumbleweed	No	
Bowlesia incana	bowlesia	Yes	
Conium maculatum	poison hemlock	No	
Eryngium vaseyi	coyote thistle	Yes	
Foeniculum vulgare	sweet fennel	No	
Apocynaceae	**Dogbane family**		
Vinca major	greater periwinkle	No	
Asclepiadaceae	**Milkweed family**		
Asclepias fascicularis	narrow-leaf milkweed	Yes	
Nerium oleander	oleander	No	
Asteraceae	**Sunflower family**		
Achillea millefolium	yarrow	Yes	
Artemesia dracunculus	tarragon	Yes	

Scientific Name*	Common Name	Native	Species Status
Artemesia douglasiana	mugwort	Yes	
Baccharis pilularis	coyote brush	Yes	
Baccharis salicifolia	mule fat	Yes	
Centaruea melitensis	tocolote	No	
Centaurea solstitialis	yellow star thistle	No	
Cirsium vulgare	bull thistle	No	
Dimorphotheca ecklonis	African daisy	No	
Erigeron bonariensis	flax-leaved horseweed	No	
Erigeron canadensis	horseweed	Yes	
Helminthotheca echioides	bristly ox-tongue	No	
Hypochaeris glabra	smooth cat's ear	No	
Hypochaeris radicata	rough cat's ear	No	
Lactuca serriola	prickly lettuce	No	
Logfia gallica	narrow-leafed filago	No	
Matricaria discoidea	pineapple weed	Yes	
Pseudognaphalium stramineum	cottonbatting plant	Yes	
Senecio vulgaris	ragwort	No	
Silybum marianum	milk thistle	No	
Sonchus oleraceus	sow thistle	No	
Stephanomeria virgata	wire-lettuce	Yes	
Taraxacum officinale	dandelion	No	
Xanthium spinosum	spiny cocklebur	Yes	
Uropappus lindleyi	silver puffs	Yes	
Boraginaceae	**Borage family**		
Amsinckia intermedia	common fiddleneck	Yes	
Amsinckia menziesii	small flowered fiddleneck	Yes	
Plagiobothrys canescens	valley popcorn flower	Yes	
Brassicaceae	**Mustard family**		
Brassica nigra	black mustard	No	
Brassica rapa	field mustard	No	
Capsella bursa-pastoris	shepherd's purse	No	
Hirschfeldia incana	summer mustard	No	
Raphanus sativa	wild radish	No	
Caprifoliaceae	**Honeysuckle family**		
Lonicera interrupta	honeysuckle	Yes	

Scientific Name*	Common Name	Native	Species Status
Sambucus nigra	black elderberry	Yes	
Symphoricarpos mollis	creeping snowberry	Yes	
Caryophyllaceae	**Pink family**		
Silene gallica	catchfly	No	
Stellaria media	chickweed	No	
Chenopodiaceae	**Goosefoot family**		
Chenopodium album	pigweed	No	
Chenopodium californicum	California pigweed	Yes	
Cistaceae	**Rock-rose family**		
Cistus monspeliensis	resinous rockrose	No	
Convolvulaceae	**Morning glory family**		
Convolvulus arvensis	bindweed	No	
Cucurbitaceae	**Gourd family**		
Marah fabaceus var. *fabaceus*	wild cucumber	Yes	
Ericaceae	**Heath family**		
vLArctostaphylos glauca	big berry manzanita	Yes	
Euphorbiaceae	**Spurge family**		
Croton setiger	doveweed/turkey mullein	Yes	
Euphorbia ocellata ssp. *ocellata*	valley spurge	Yes	
Fabaceae	**Pea family**		
Acmispon americanus	Spanish lotus	Yes	
Acmispon glaber	deer weed	Yes	
Lathyrus odoratus	sweet pea	No	
Lupinus bicolor	miniature lupine	Yes	
Lupinus microcarpus var. *microcarpus*	chick lupine	Yes	
Lupinus nanus	sky lupine	Yes	
Melilotus indica	sourclover	No	
Medicago polymorpha	bur clover	No	
Trifolium hirtum	rose clover	No	
Vicia americana var. *americana*	American vetch	Yes	
Vicia sativa	spring vetch	No	
Vicia villosa	hairy vetch	No	
Fagaceae	**Oak family**		
Quercus agrifolia	coast live oak	Yes	
Quercus douglasii	blue oak	Yes	
Quercus lobata	valley oak	Yes	

Scientific Name*	Common Name	Native	Species Status
Geraniaceae	**Geranium family**		
Erodium cicutarium	red-stemmed filaree	No	
Erodium botrys	filaree	No	
Geranium dissectum	cut leaf geranium	No	
Hydrophylaceae	**Waterleaf family**		
Phacelia distans	common phacelia	Yes	
Pholistoma auritum	fiesta flower	Yes	
Juglandaceae	**Walnut family**		
Juglans californica var *californica*	S. California black walnut	Yes	
Lamiaceae	**Mint family**		
Lavandula sp.	lavender	No	
Marrubium vulgare	horehound	No	
Stachys bullata	hedge nettle	Yes	
Lauraceae	**Laurel family**		
Umbellaria californica	California bay	Yes	
Malvaceae	**Mallow family**		
Malva parviflora	cheeseweed	No	
Montiaceae	**Minor's lettuce family**		
Claytonia parviflora	arrow leaved minor's lettuce	Yes	
Claytonia perfoliata	miners lettuce	Yes	
Myrsinaceae	**Myrsine family**		
Lysimachia arvensis	scarlet pimpernel	No	
Myrtaceae	**Myrtle family**		
Eucalyptus sp.	unknown eucalyptus	No	
Eucalyptus globules	blue gum	No	
Oleaceae	**Ash family**		
Olea europaea	olive	No	
Onagraceae	**Evening primrose family**		
Clarkia affinis	chaparral fairyfan	Yes	
Clarkia purpurea ssp. *quadrivulnera*	purple clarkia	Yes	
Clarkia speciosa	red spotted clarkia	Yes	
Clarkia unguiculata	elegant clarkia	Yes	
Epilobium canum	California fuchsia	Yes	
Eremothera boothii ssp. *decorticans*	shredding evening primrosa	Yes	
Oxalidaceae	**Woodsorrel family**		
Oxalis pes-caprae	Bermuda buttercup	No	

Scientific Name*	Common Name	Native	Species Status
Papaveraceae	**Poppy family**		
Eschscholzia californica	California poppy	Yes	
Plantaginaceae	**Plantain family**		
Collinsia heterophylla	Chinese houses	Yes	
Plantago lanceolata	English plantain	No	
Plantanaceae	**Sycamore family**		
Platanus racemosa	western sycamore	Yes	
Polygonaceae	**Buckwheat family**		
Chorizanthe membranacea	pink spineflower	Yes	
Eriogonum elegans	elegant buckwheat	Yes	Rank 4.3
Eriogonum gracillimum	slender-stemmed buckwheat	Yes	
Eriogonum nudum	naked buckwheat	Yes	
Eriogonum roseum	wand buckwheat	Yes	
Polygonum aviculare	prostrate knotweed	No	
Rumex acetosella	sheep sorrel	No	
Rumex crispus	curly dock	No	
Rumex pulcher	fiddle dock	No	
Rhamnaceae	**Buckthorn family**		
Ceanothus cuneatus var. *cuneatus*	wedgeleaf ceanothus	Yes	
Rhamnus ilicifolia	evergreen buckthorn	Yes	
Rosaceae	**Rose family**		
Rosa californica	California wild rose	Yes	
Rubiaceae	**Madder family**		
Galium aparine	goose grass	Yes	
Salicaceae	**Willow family**		
Populus fremontii ssp. *fremontii*	Fremont's cottonwood	Yes	
Salix babylonica	weeping willow	No	
Salix lasiandra	red willow	Yes	
Scrophulariaceae	**Figwort family**		
Verbascum thapsus	common mullein	No	
Solanaceae	**Nightshade family**		
Datura stramonium	jimson weed	No	
Nicotiana acuminate	manyflowered tobacco	No	
Solanum americanum	American black nightshade	Yes	

Scientific Name*	Common Name	Native	Species Status
Urticaceae	**Nettle family**		
Urtica urens	dwarf nettle	No	
Verbenaceae	**Verbena family**		
Verbena lasiostachys	common vervain	No	
Viscaceae	**Mistletoe family**		
Phoradendron villosum	oak mistletoe	Yes	
Vitaceae	**Grape family**		
Vitis sp.	cultivated grape	Unknown	
ANGIOSPERMS (MONOCOTS)			
Cyperaceae	**Sedge family**		
Schoenoplectus americanus	bulrush	Yes	
Liliaceae	**Lily family**		
Bloomeria crocea	common goldenstar	Yes	
Brodiaea terrestris	dwarf brodiaea	Yes	
Calochortus luteus	yellow mariposa lily	Yes	
Dichelostemma capitatum	blue dicks	Yes	
Poaceae	**Grass family**		
Avena barbata	slender wild oats	No	
Avena fatua	wild oats	No	
Briza maxima	rattle snake grass	No	
Bromus arenarius	Australian chess	No	
Bromus carinatus	California brome	Yes	
Bromus diandrus	ripgut brome	No	
Bromus hordeaceus	soft chess brome	No	
Bromus madritensis	Spanish brome	No	
Bromus rubens	red brome	No	
Carduus pycnocephalus	Italian thistle	No	
Cortaderia jubata	pampas grass	No	
Cynodon dactylon	Bermuda grass	No	
Festuca bromoides	brome fescue	No	
Festuca microstachys	small fescue	Yes	
Festuca myuros	rattail fescue	No	
Festuca perennis	Italian ryegrass	No	
Hordeum murinum ssp. *leporinum*	foxtail	No	
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	No	
Melica imperfecta	melic grass	Yes	

Scientific Name*	Common Name	Native	Species Status
Polypogon monspeliensis	rabbitsfoot grass	No	
Stipa pulchra	purple needle-grass	Yes	
Stipa cernua	nodding needle grass	Yes	
Typhaceae	**Cattail family**		
Typha latifolia	cattail	Yes	

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

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Appendix B.
Fauna Compendium

Table B-1. Fauna Compendium

Scientific Name	Common Name
BIRDS	
Anatidae	
Anas platyrhynchos	mallard duck
Oxyura jamaicensis	ruddy duck
Gruiadae	
Fulica americana	American coot
Odontophoridae	
Callipepla californica	California quail
Cathartidae	
Cathartes aura	turkey vulture
Accipitridae	
Buteo jamaicensis	red-tailed hawk
Falconidae	
Falco sparverius	American kestrel
Tytonidae	
Tyto alba	barn owl
Scolopacidae	
Actitis macularius	spotted sandpiper
Charadriidae	
Charadrius vociferus	killdeer
Columbidae	
Zenaida macroura	**mourning dove**
Streptopelia decaocto	Eurasian collared dove*
Trochilidae	
Calyote anna	Anna’s hummingbird
Picidae	
Melanerpes formicivorus	acorn woodpecker
Tyrannidae	
Tyrannus verticalis	western kingbird
Empidonax difficilis	Pacific-slope flycatcher
Myiarchus cinerascens	ash-throated flycatcher

Scientific Name	Common Name
Laniidae	
Lanius ludovicianus	loggerhead shrike**
Corvidae	
Aphelocoma californica	western scrub-jay
Corvus corax	common raven
Corvus brachyrhynchos	American crow
Hirundinidae	
Hirundo rustica	barn swallow
Tachycineta bicolor	tree swallow
Turdidae	
Turdus migratorius	American robin
Sialia mexicana	western bluebird
Mimidae	
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
Sturnidae	
Sturnus vulgaris	European starling*
Emberizidae	
Pipilo maculatus	spotted towhee
Melozone crissalis	California towhee
Thraupidae	
Piranga ludoviciana	western tanager
Icteridae	
Agelaius phoeniceus	red-winged blackbird
Euphagus cyanocephalus	Brewer's blackbird
Sturnella neglecta	western meadowlark
Fringillidae	
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
MAMMALS	
Canidae	
Canis latrans	coyote

Scientific Name	Common Name
Felidae	
Felis catus	domestic cat*
Cervidae	
Odocoileus hemionus	mule deer
Sciuridae	
Otospermophilus beecheyi	California ground squirrel
Leporidae	
Sylvilagus bachmani	brush rabbit
REPTILES	
Phrynosomatidae	
Sceloporus occidentalis	western fence lizard
Colubridae	
Pituophis catenifer	Gopher snake
INSECTS	
Acrididae	
Unknown	short-horned grasshopper
Papilionidae	
Papilio rutulus	western tiger swallowtail

*Introduced species
**Special-status species

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Appendix C.
Photo Documentation

Photo 1: View northeast showing nonnative grassland habitat typical of what was observed throughout the BSA.

Photo 2: View facing east showing blue oak woodland habitat, typical of what was observed along intermittent drainage channels in the BSA.

Photo 3: View facing northwest showing the seasonal wetland (red arrow) observed at the intersection of Wellsona Road and North River Road. This feature may provide suitable vernal pool fairy shrimp habitat.

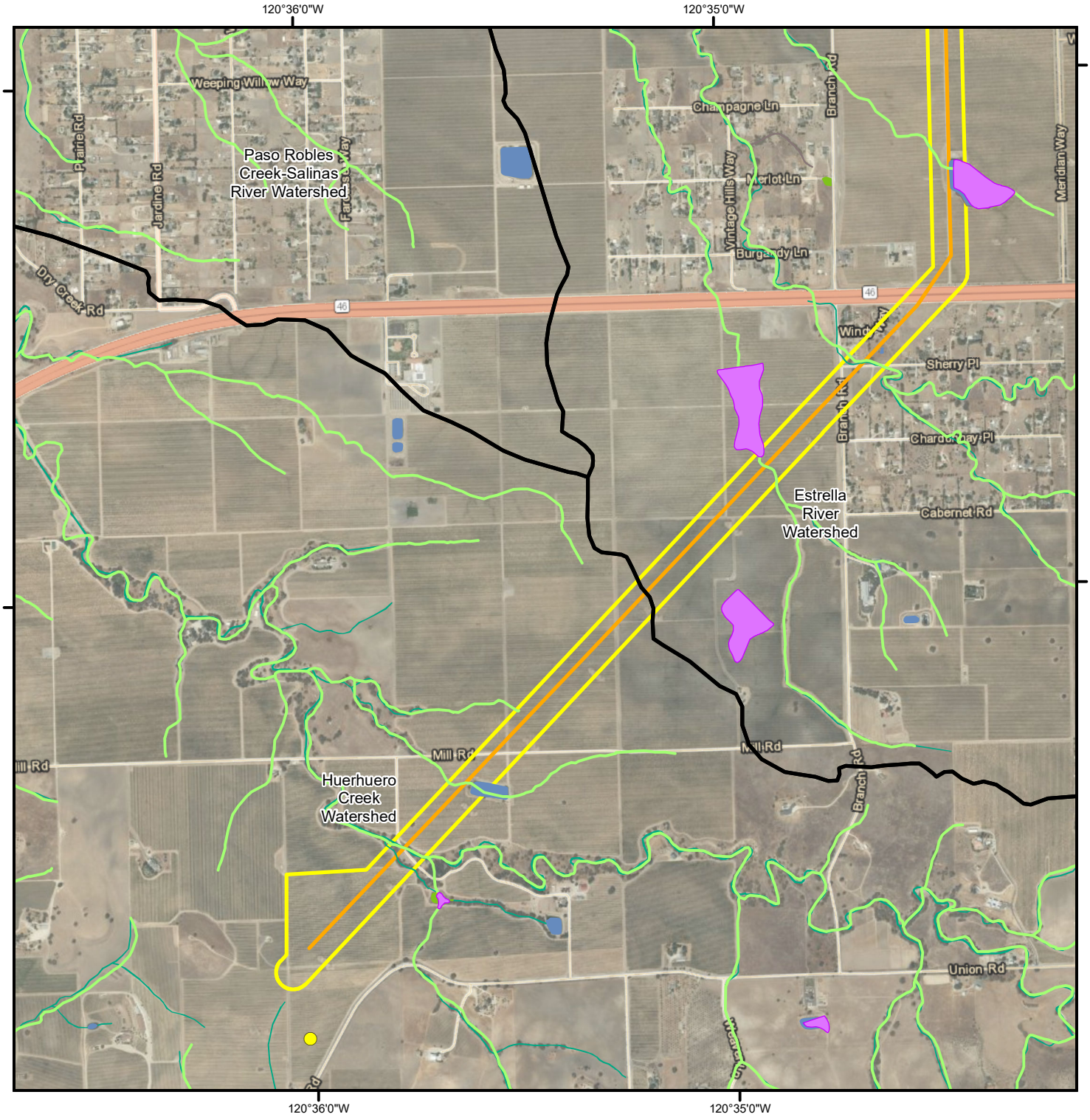
Photo 4: View facing southeast at a retention pond typical of those observed throughout agricultural areas in the BSA.

Photo 5: View facing east at Wellsona Road showing landscape typical of that observed throughout the BSA.

Photo 6: View facing northeast at agricultural habitat typical of that observed throughout the BSA.

Photo 7: Photo showing barn owls actively nesting in an owl box in the BSA. Similar owl boxes were observed throughout the agricultural areas throughout the BSA.

Appendix D.
National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) Map



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Project Area

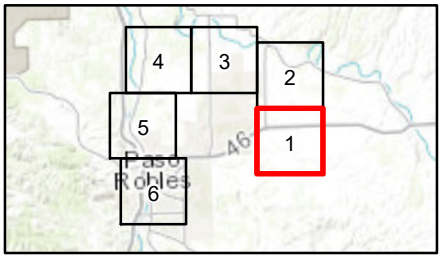
- New 70 kV Power Line Segment
- Estrella Substation (New)

National Hydrography Dataset

- Lake/Pond
- Artificial Path
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

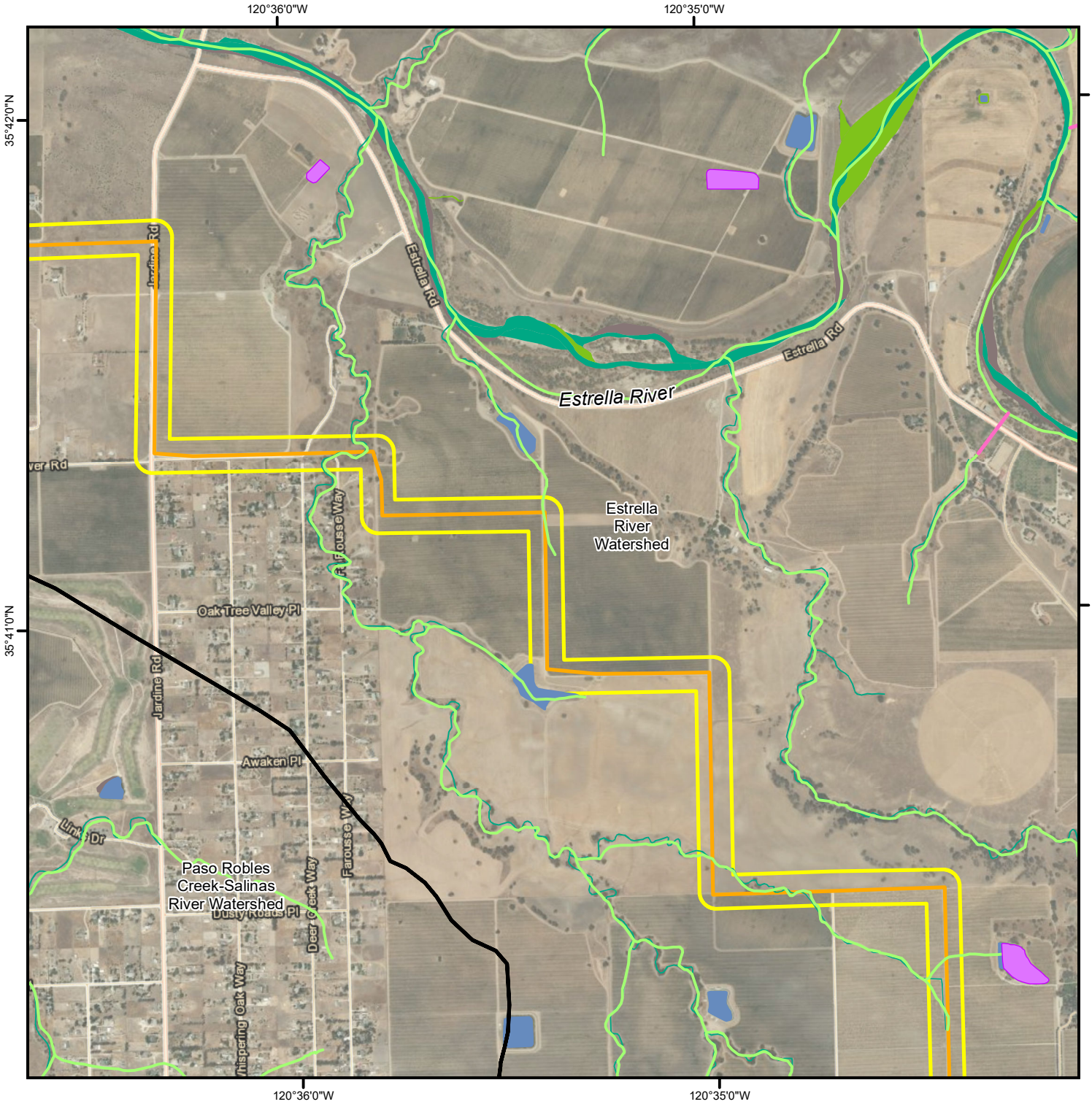


Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:24:16 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Project Area

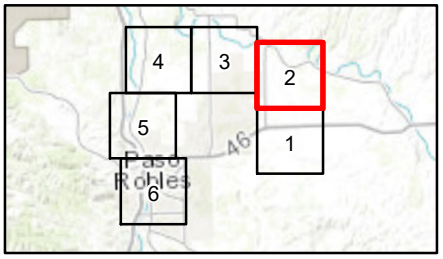
- New 70 kV Power Line Segment

National Hydrography Dataset

- Lake/Pond
- Artificial Path
- Connector
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

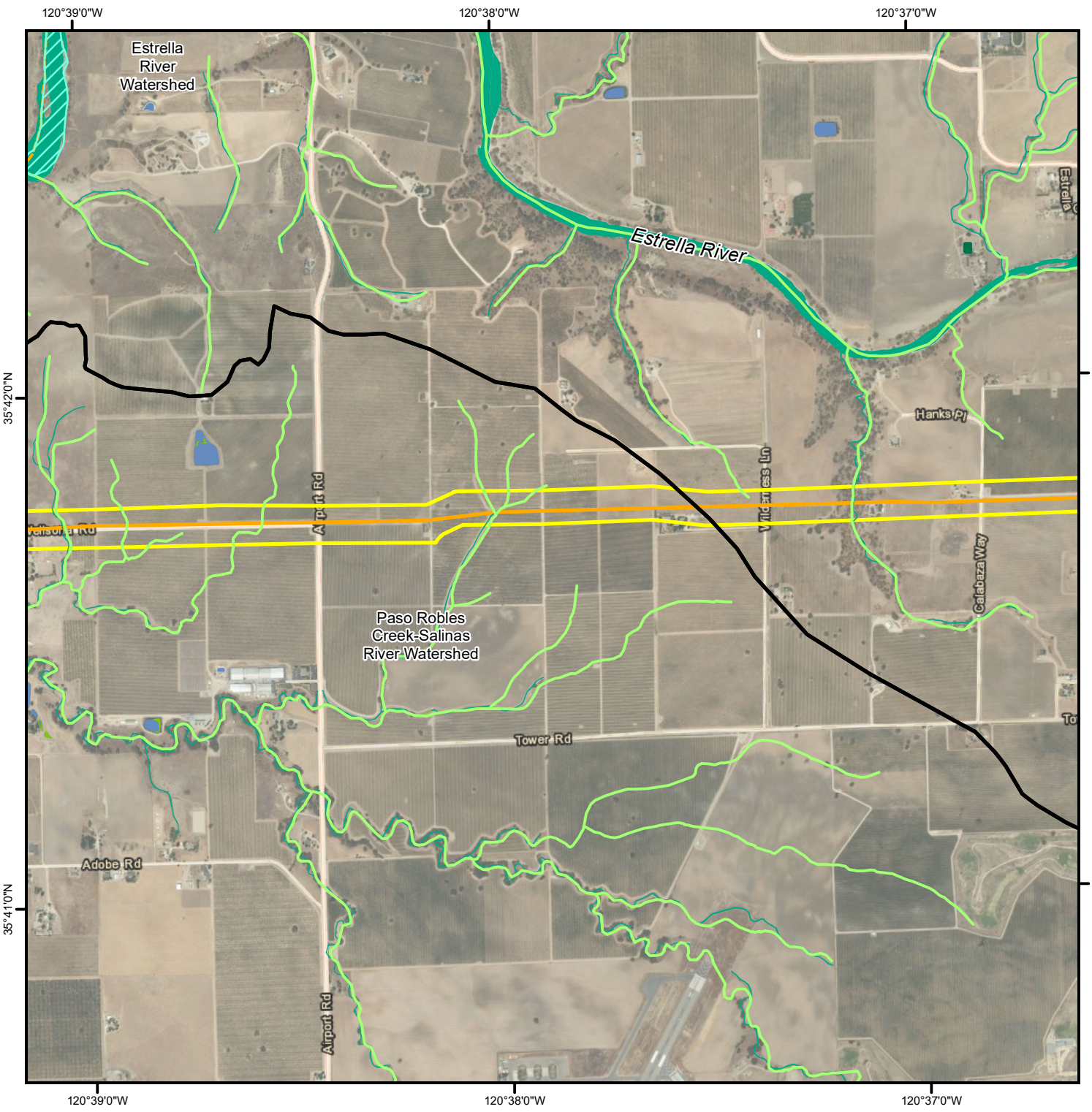


Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:24:35 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Project Area

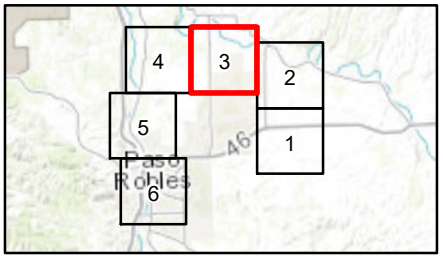
- New 70 kV Power Line Segment

National Hydrography Dataset

- Reservoir
- Wash
- Artificial Path
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

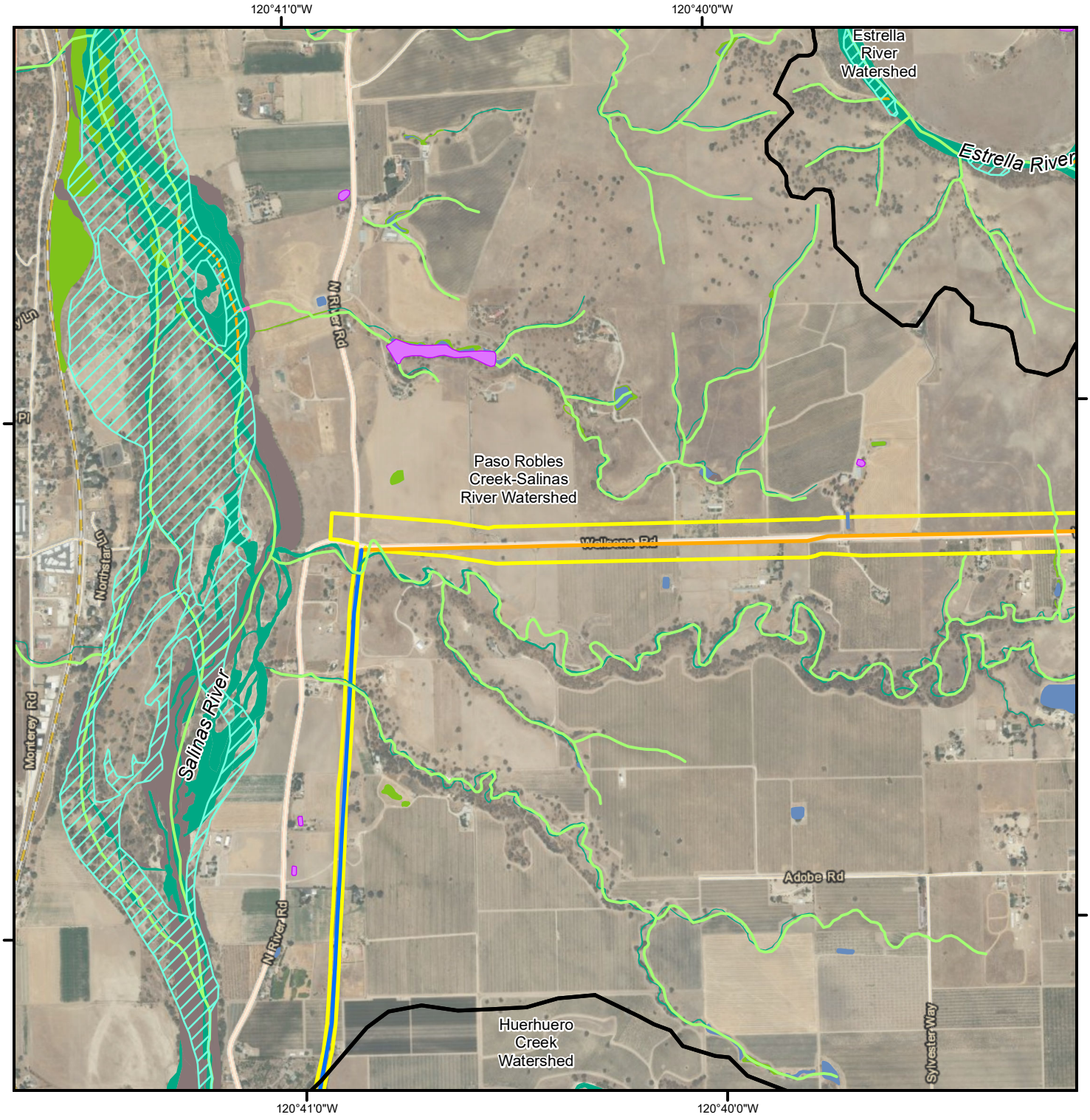


Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:24:53 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Project Area

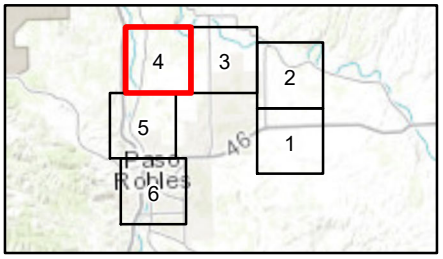
- New 70 kV Power Line Segment
- Reconductoring Segment

National Hydrography Dataset

- Lake/Pond
- Wash
- Artificial Path
- Connector
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

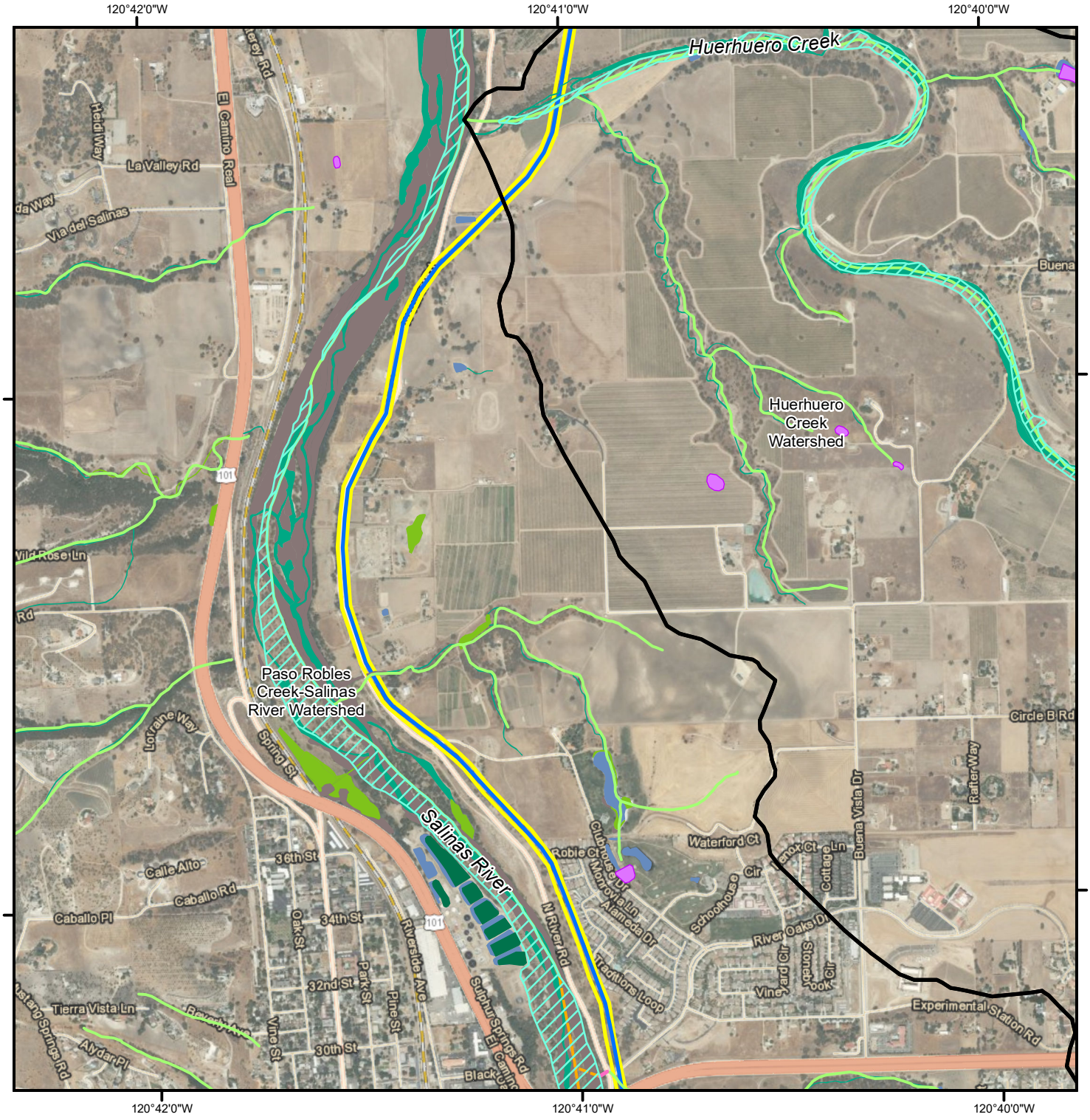


Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:25:09 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Project Area

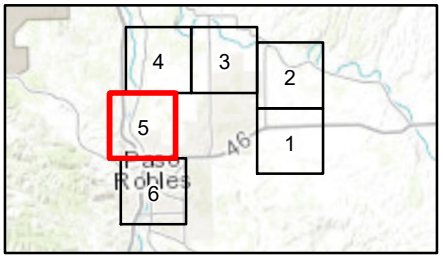
- Reconductoring Segment

National Hydrography Dataset

- Lake/Pond
- Reservoir
- Wash
- Artificial Path
- Connector
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

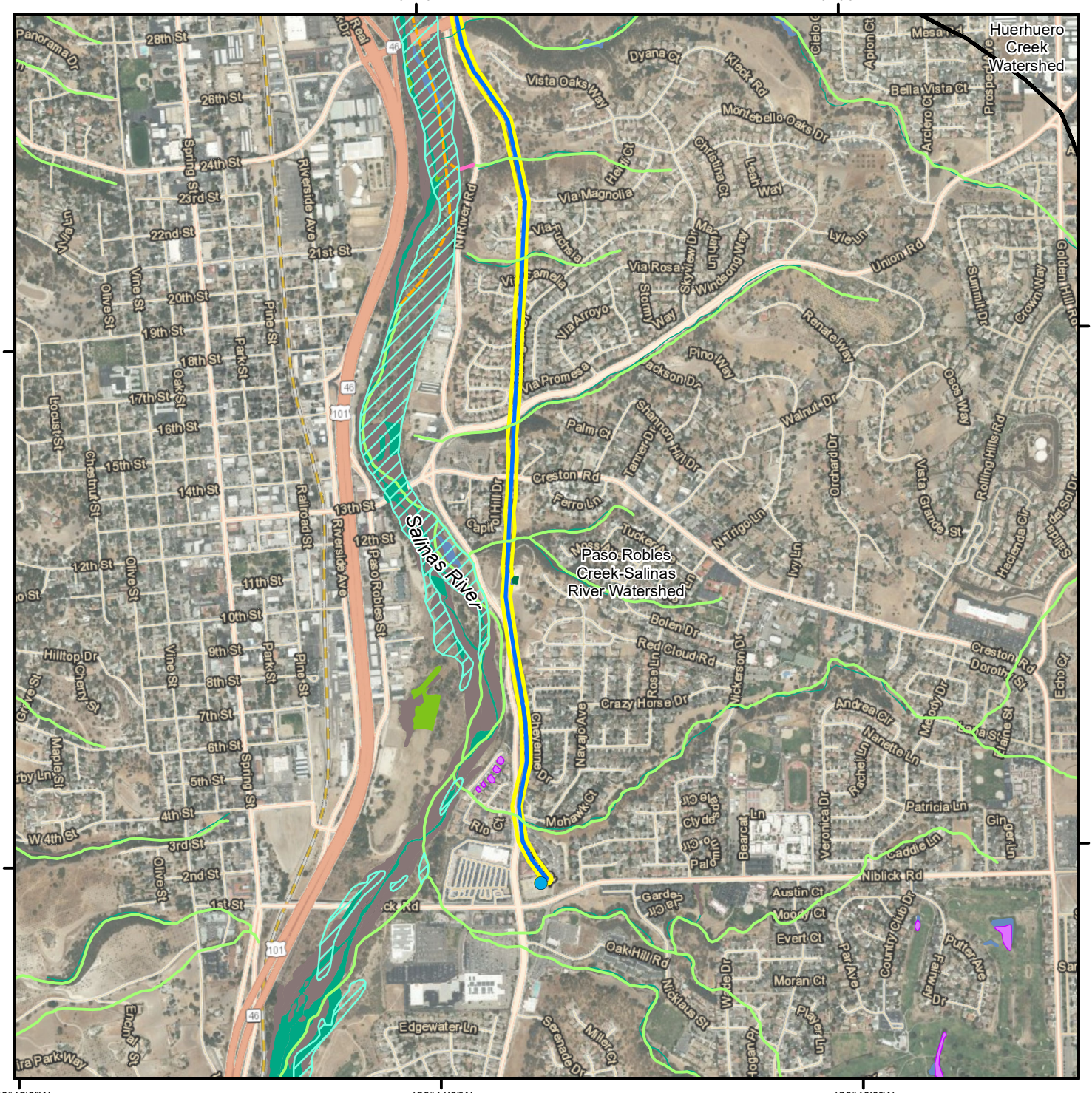


Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:25:27 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)



Project Area

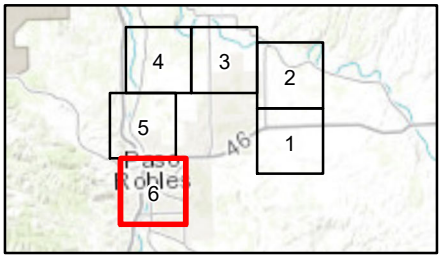
- Reconductoring Segment
- Paso Robles Substation (Existing)

National Hydrography Dataset

- Lake/Pond
- Reservoir
- Wash
- Artificial Path
- Connector
- Stream/River
- Watershed Boundary (Hydrologic Unit 10)

National Wetlands Inventory

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine



Pacific Gas and Electric Company

0 0.15 0.3 0.6 Miles

1:20,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

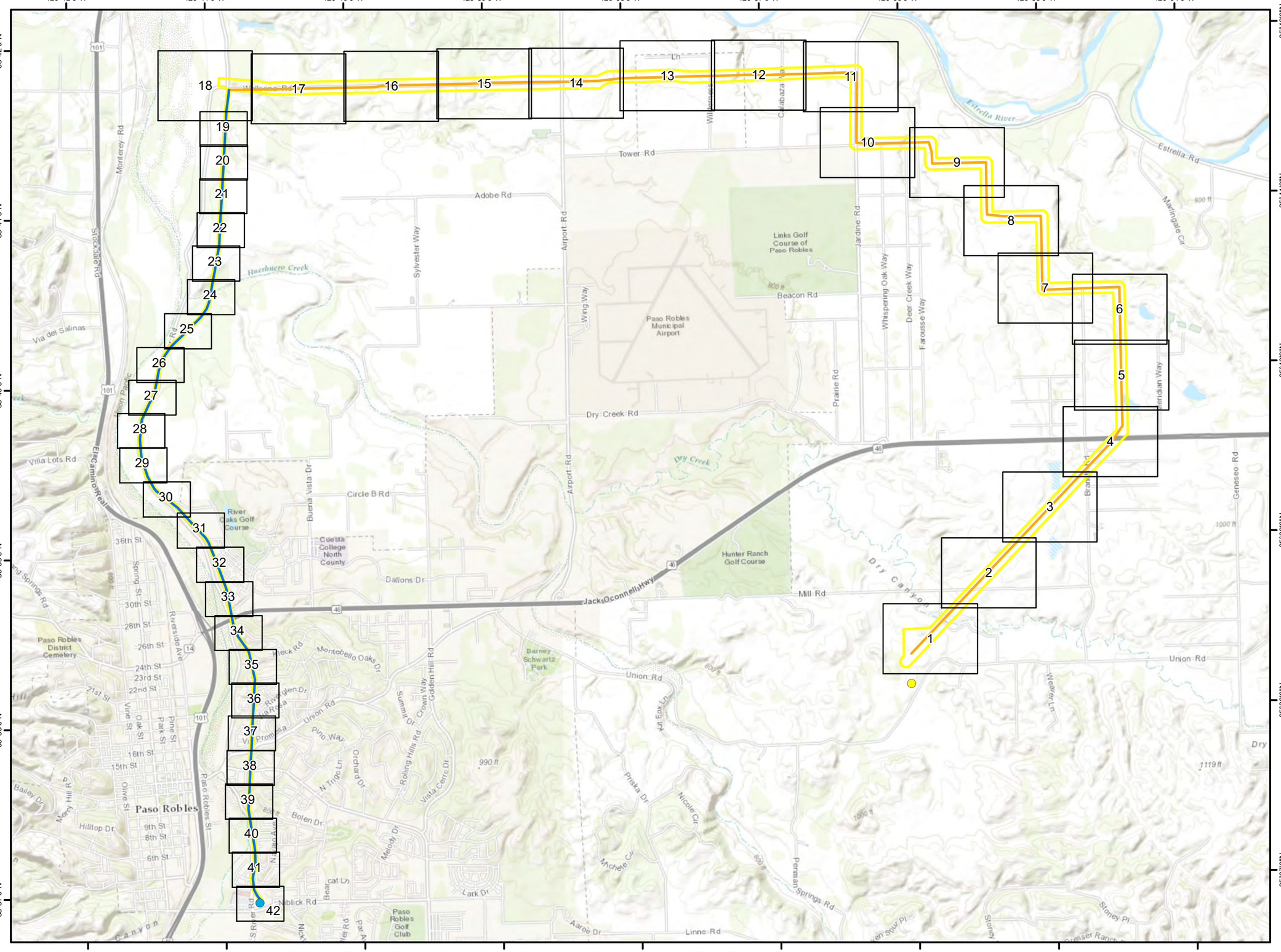
NWI/NHD Map

Prepared by SWCA Environmental Consultants (1/19/2017, 2:25:45 PM) - NAD 1983 UTM Zone 10N
File: Estrella_Power_Line_NR_Estrella_NWI_NHD_8x11full - Basemap source: ESRI World Imagery - Data sources: National Hydrography Dataset (NHD); National Wetlands Inventory (NWI)

Appendix E.
Biological Resource Map

120°42'0"W 120°41'0"W 120°40'0"W 120°39'0"W 120°38'0"W 120°37'0"W 120°36'0"W 120°35'0"W 120°34'0"W

35°42'0"N 35°41'0"N 35°40'0"N 35°39'0"N 35°38'0"N 35°37'0"N



Pacific Gas and Electric Company

0 0.25 0.5 1 Miles

1:40,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map Index Sheet

Legend

- Mapbook Page
- Biological Study

Project Area

- New 70 kV Power Line Segment
- Reconductoring Segment
- Estrella Substation (New)
- Paso Robles Substation (Existing)

Prepared by SWCA Environmental Consultants (1/19/2017, 2:26:58 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full_Index - Basemap source: ESRI World Topographic Map

120°36'10"W
120°36'0"W
120°35'50"W
120°35'40"W
35°38'30"N
35°38'20"N
Dry Creek
Page 2
Union Rd
5208
Union Rd

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 1 of 42

Legend

Biological Study

Project Area

New 70 kV Power Line Segment

Vegetation Communities

Agricultural

Blue oak woodland

Nonnative grassland

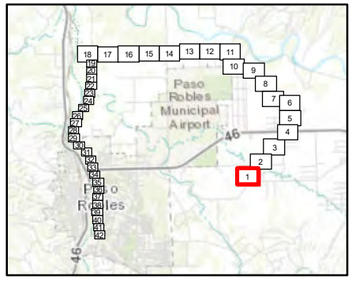
Ruderal

Potential Jurisdictional Waters

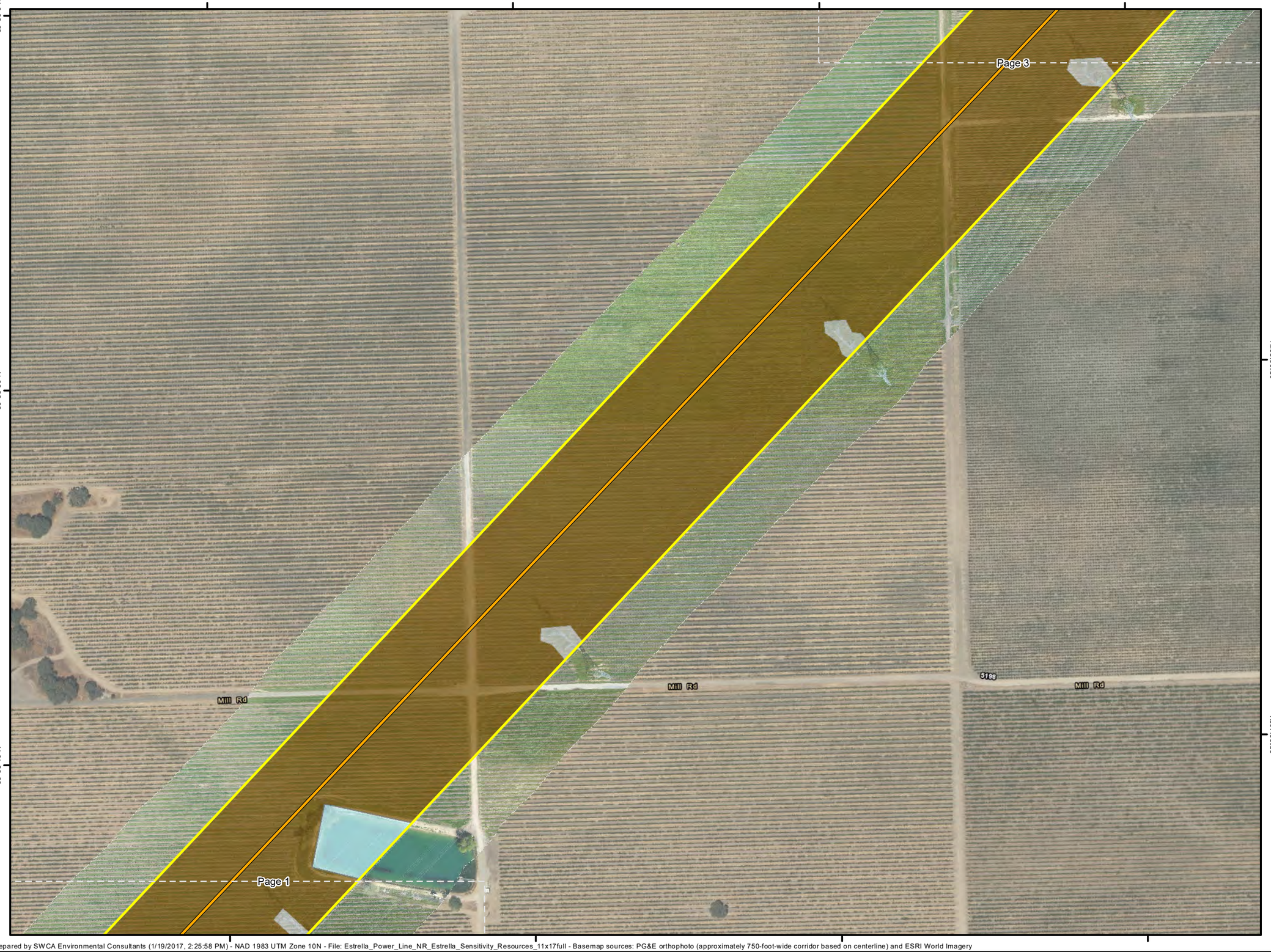
Potential CDFW Jurisdiction

Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:25:41 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery



Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 2 of 42

Legend

- Biological Study

Project Area

- New 70 kV Power Line Segment

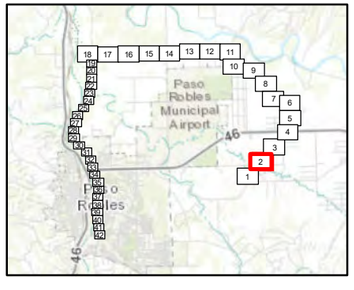
Vegetation Communities

- Agricultural
- Ruderal

Other Features

- Retention pond

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:25:58 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 3 of 42

Legend

Biological Study

Project Area

New 70 kV Power Line Segment

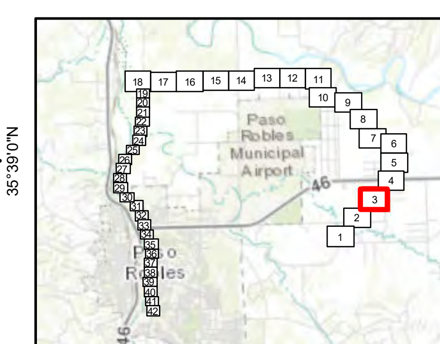
Vegetation Communities

Agricultural

Ruderal

Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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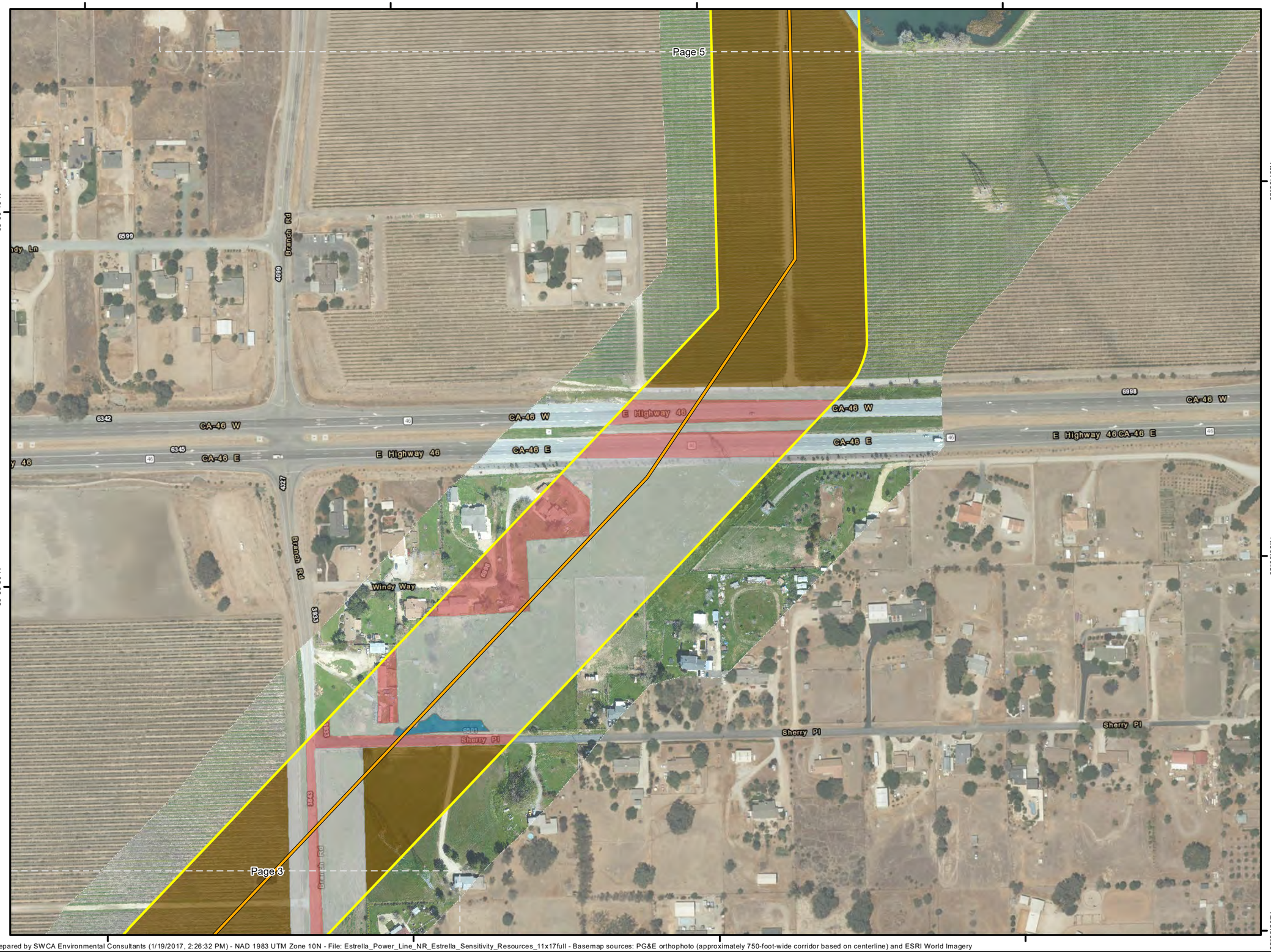
120°34'50"W 120°34'40"W 120°34'30"W 120°34'20"W

35°39'40"N 35°39'30"N 35°39'20"N

Page 5

Page 3



1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 4 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

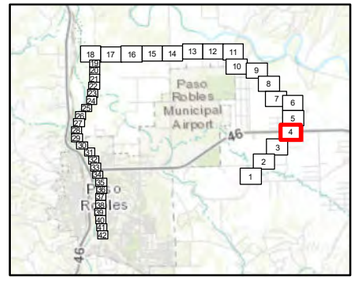
Vegetation Communities

- Agricultural
- Ruderal
- Urban/Developed

Other Features

- Retention pond
- Seasonal wetland

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 5 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

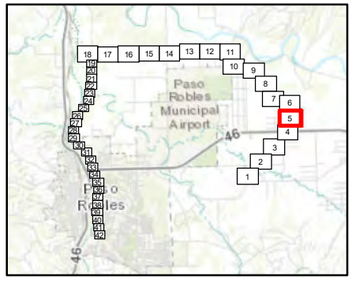
Vegetation Communities

- Agricultural
- Ruderal
- Urban/Developed

Other Features

- Retention pond

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 6 of 42

Legend

- Biological Study Area

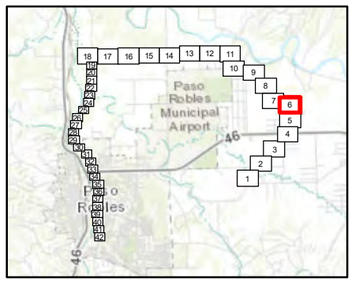
Project Area

- New 70 kV Power Line Segment
- No Access Granted

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Ruderal

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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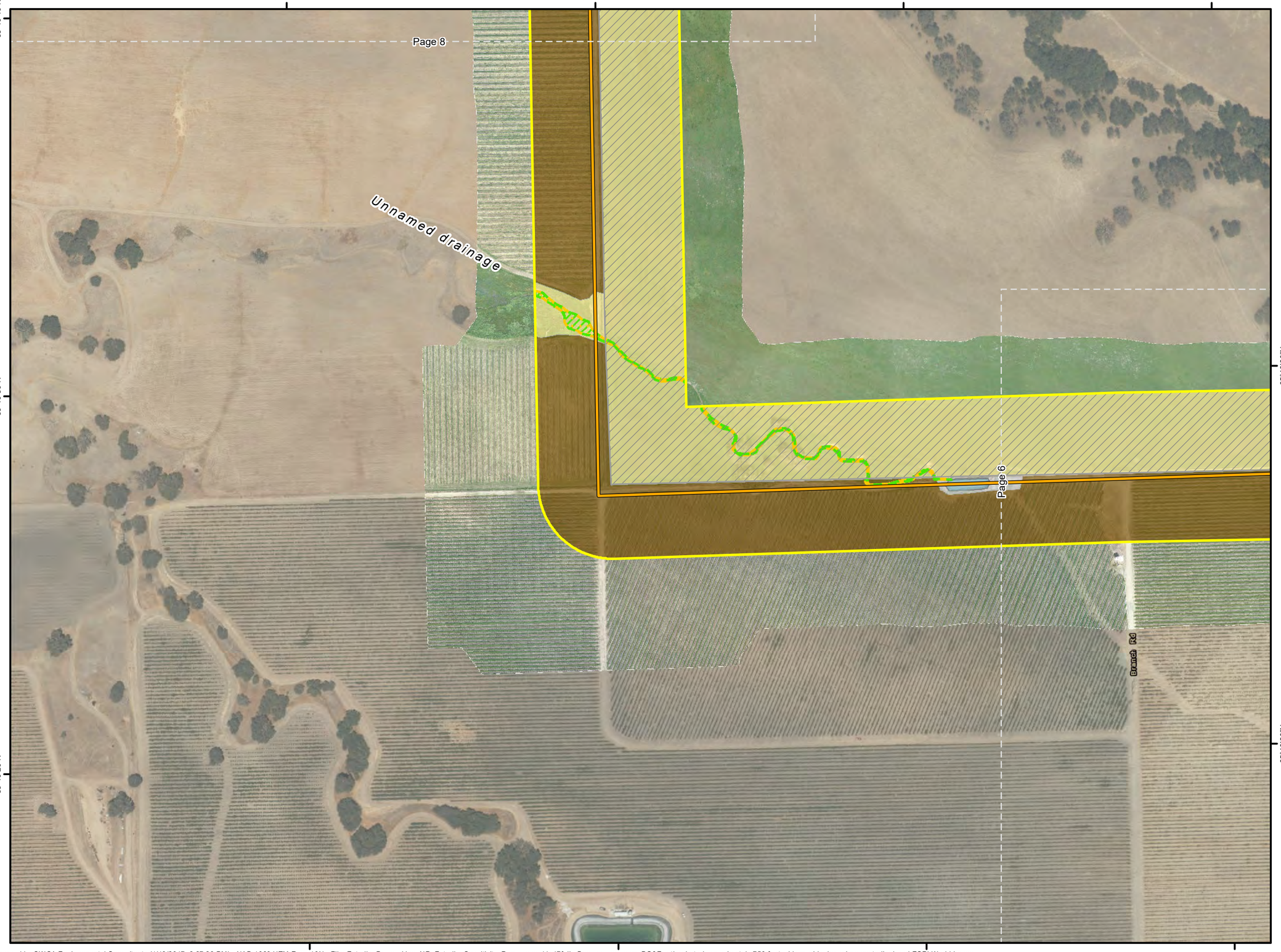


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 7 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment
- No Access Granted

Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal

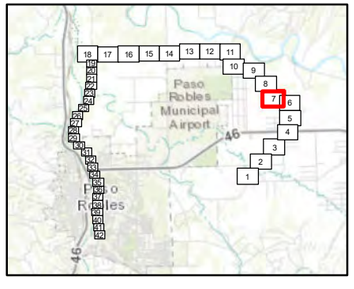
Other Features

- Detention basin

Potential Jurisdictional Waters

- Potential USACE/CDFW Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°35'30"W
120°35'20"W
120°35'10"W
120°35'0"W
35°41'10"N
35°40'50"N
35°40'40"N

Page 9

Page 7

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 8 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment
- No Access Granted

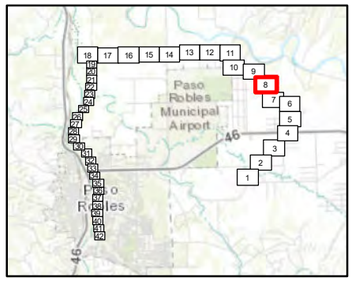
Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

Other Features

- Retention basin

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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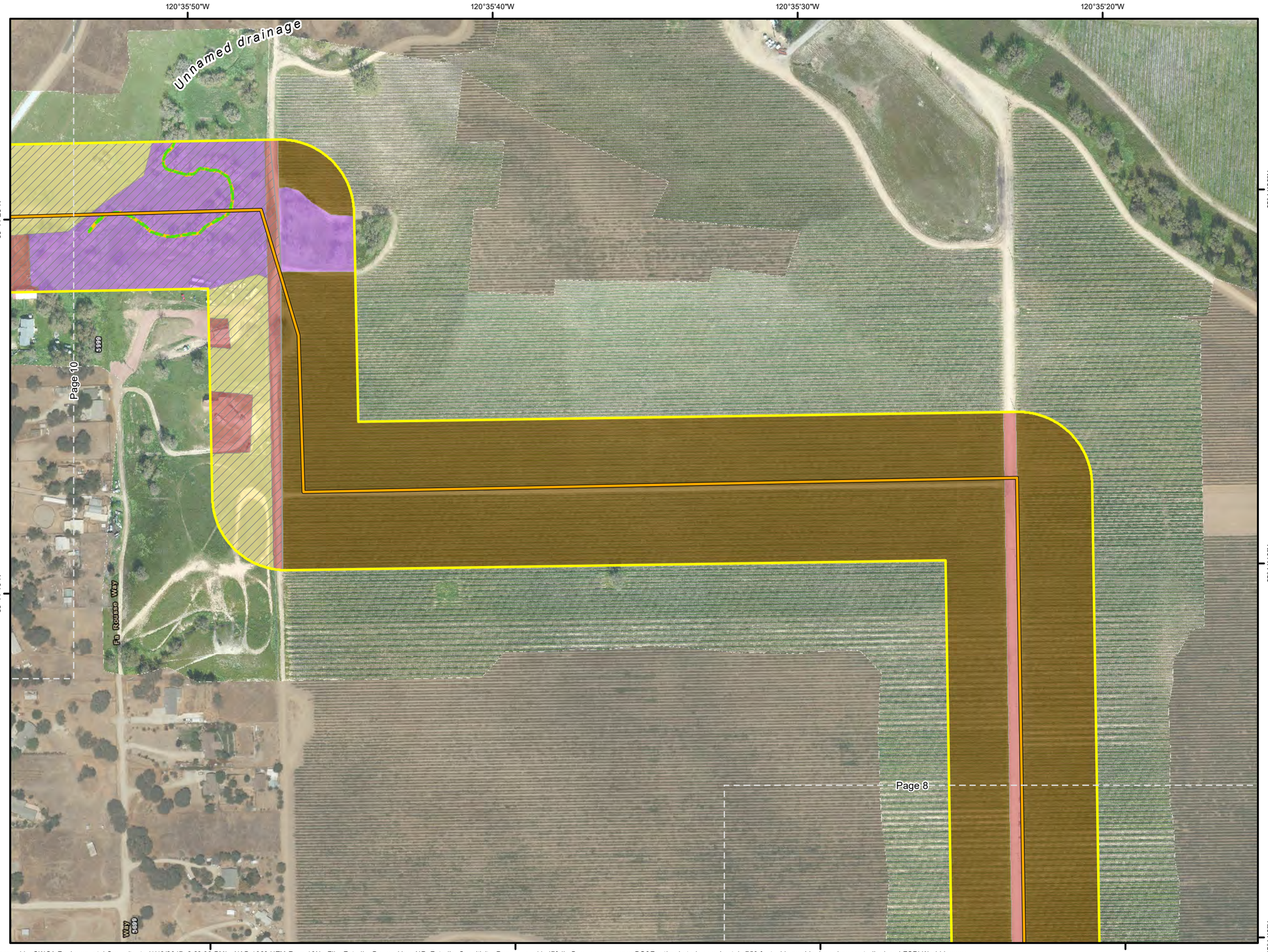


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 9 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment
- No Access Granted

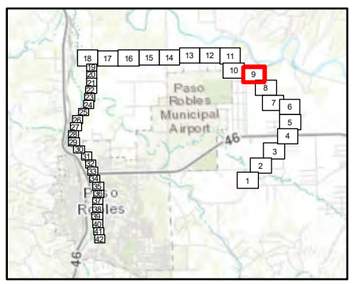
Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Urban/Developed

Potential Jurisdictional Waters

- Potential USACE/CDFW Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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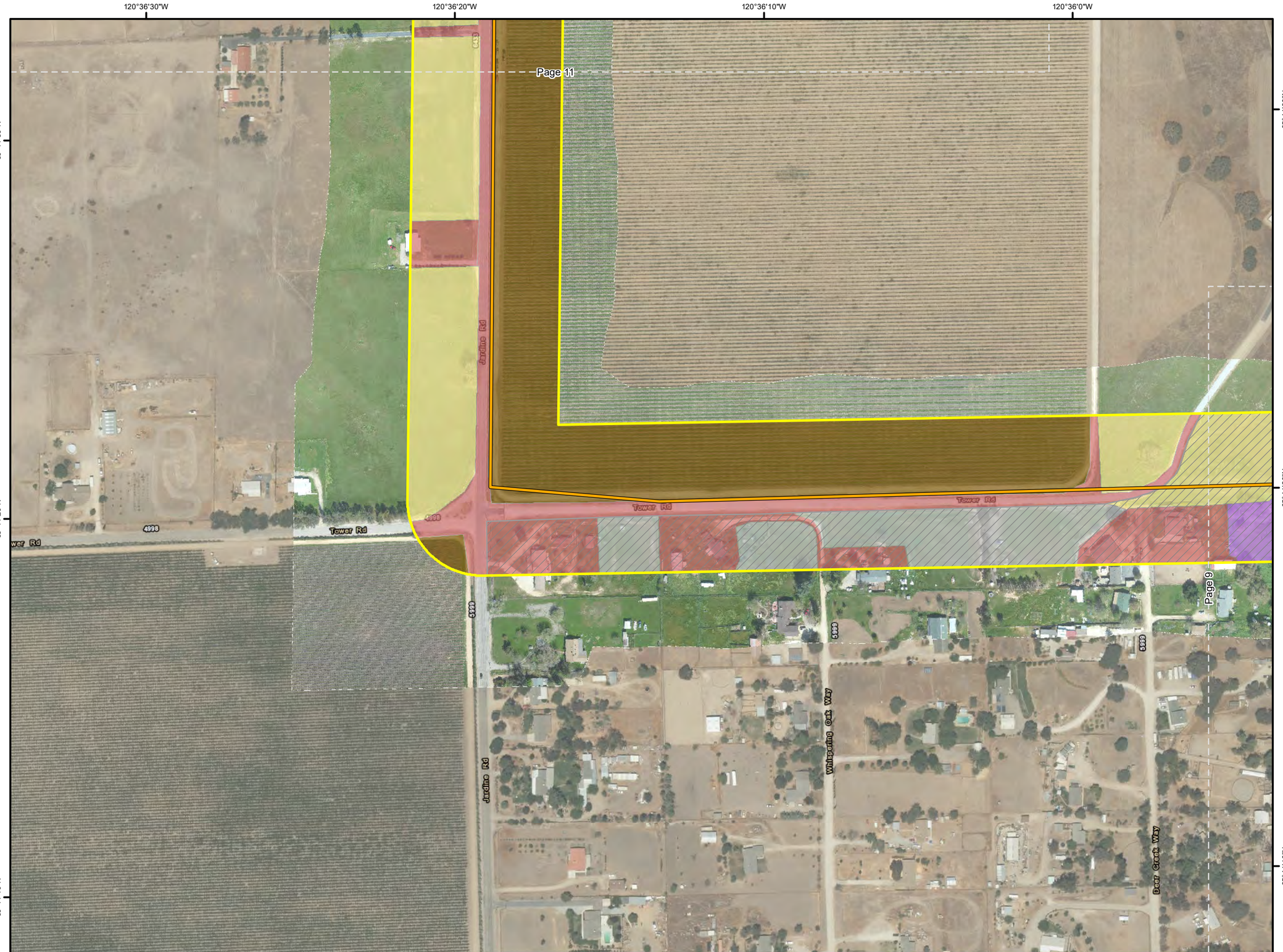


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 10 of 42

Legend

- Biological Study Area

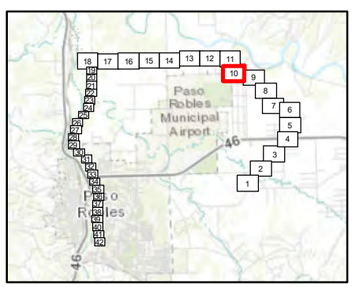
Project Area

- New 70 kV Power Line Segment
- No Access Granted

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°36'40"W
120°36'30"W
120°36'20"W
120°36'10"W
35°41'50"N
35°41'40"N
Jardine Rd
Page 12
Page 10

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 11 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

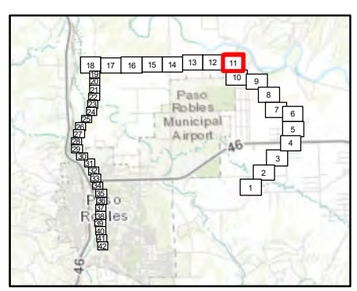
Vegetation Communities

- Agricultural
- Nonnative grassland
- Urban/Developed

Mammals

- Potential mammal den

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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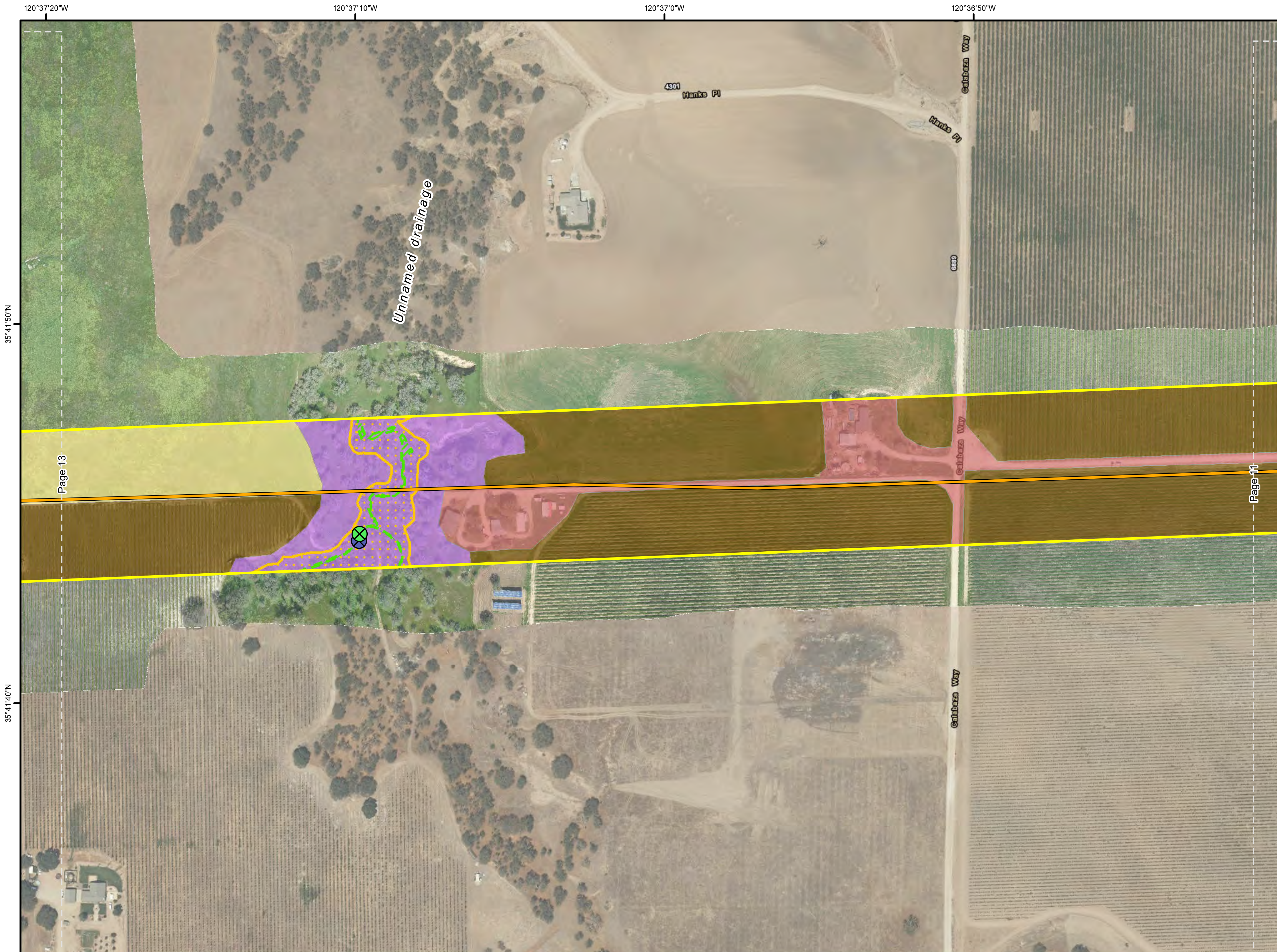


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Urban/Developed

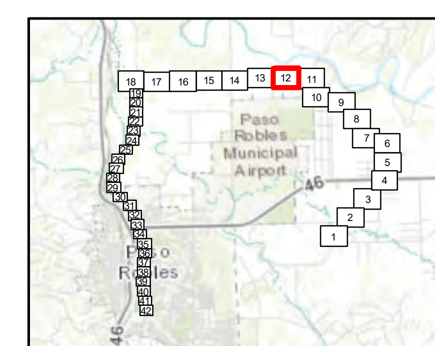
Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Culverts

- Culvert inlet
- Culvert outlet

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°38'0"W 120°37'50"W 120°37'40"W 120°37'30"W 120°37'20"W

35°41'50"N

35°41'40"N

8699 Wilderness Ln

Wilderness Ln

Wilderness Ln

Wilderness Ln

Wilderness Ln

Page 14

Page 12

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 13 of 42

Legend

- Biological Study

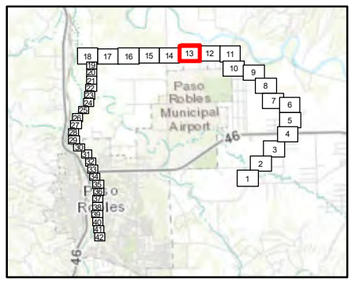
Project Area

- New 70 kV Power Line Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:29:14 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

120°38'30"W 120°38'20"W 120°38'10"W 120°38'0"W

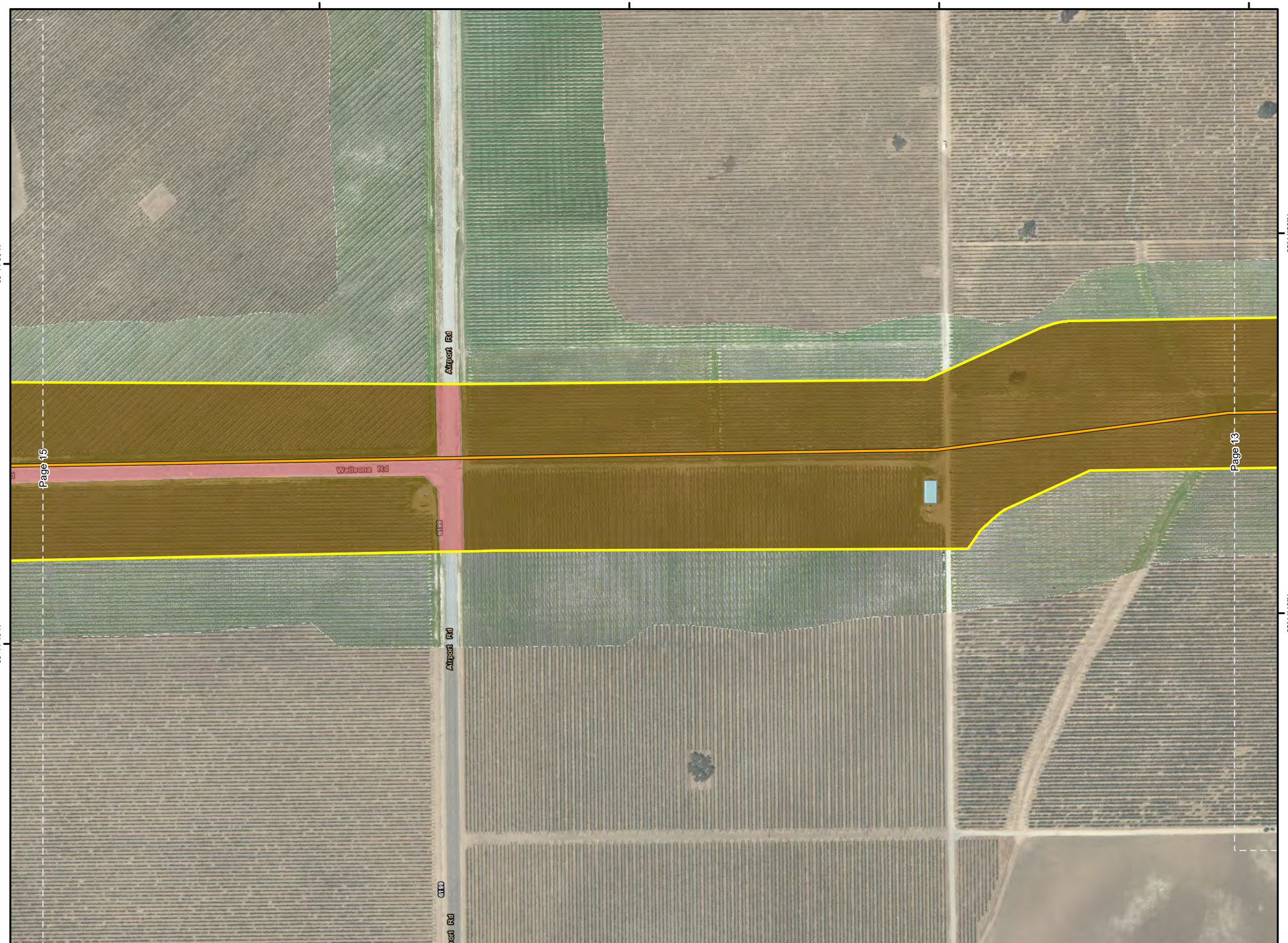
35°41'50"N 35°41'40"N

Airport Rd

Wellsona Rd

Page 15

Page 13



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 14 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

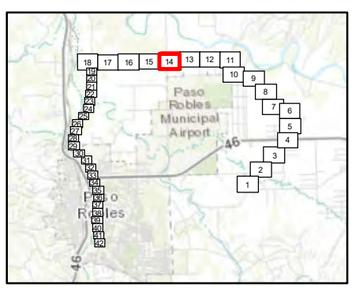
Vegetation Communities

- Agricultural
- Urban/Developed

Other Features

- Retention pond

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



120°39'10"W
120°39'0"W
120°38'50"W
120°38'40"W
35°41'50"N
35°41'40"N
Page 16
Page 14
Wellsona Rd
Unnamed drainage

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 15 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

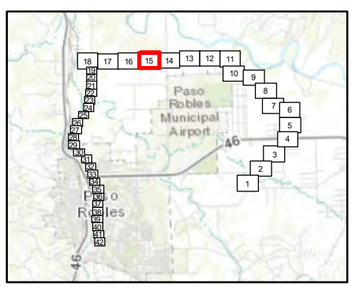
Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction
- Potential USACE/CDFW Jurisdiction

Culverts

- Culvert inlet
- Culvert outlet

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'0"W 120°39'50"W 120°39'40"W 120°39'30"W 120°39'20"W

35°41'50"N

35°41'40"N

Page 17

Page 15

Wellsona Rd

Wellsona Rd

Wellsona Rd

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 16 of 42

Legend

- Biological Study Area

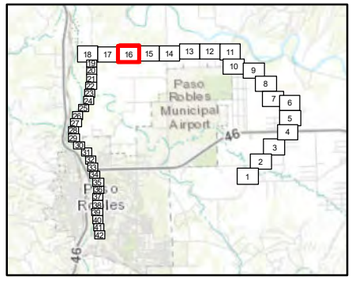
Project Area

- New 70 kV Power Line Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'40"W 120°40'30"W 120°40'20"W 120°40'10"W 120°40'0"W

35°41'50"N

35°41'40"N

Page 18

Page 16

Wellsona Rd

500

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 17 of 42

Legend

- Biological Study Area

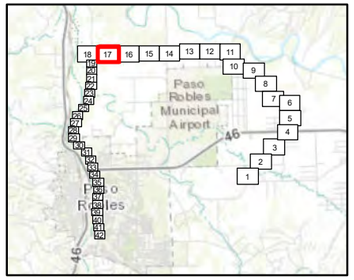
Project Area

- New 70 kV Power Line Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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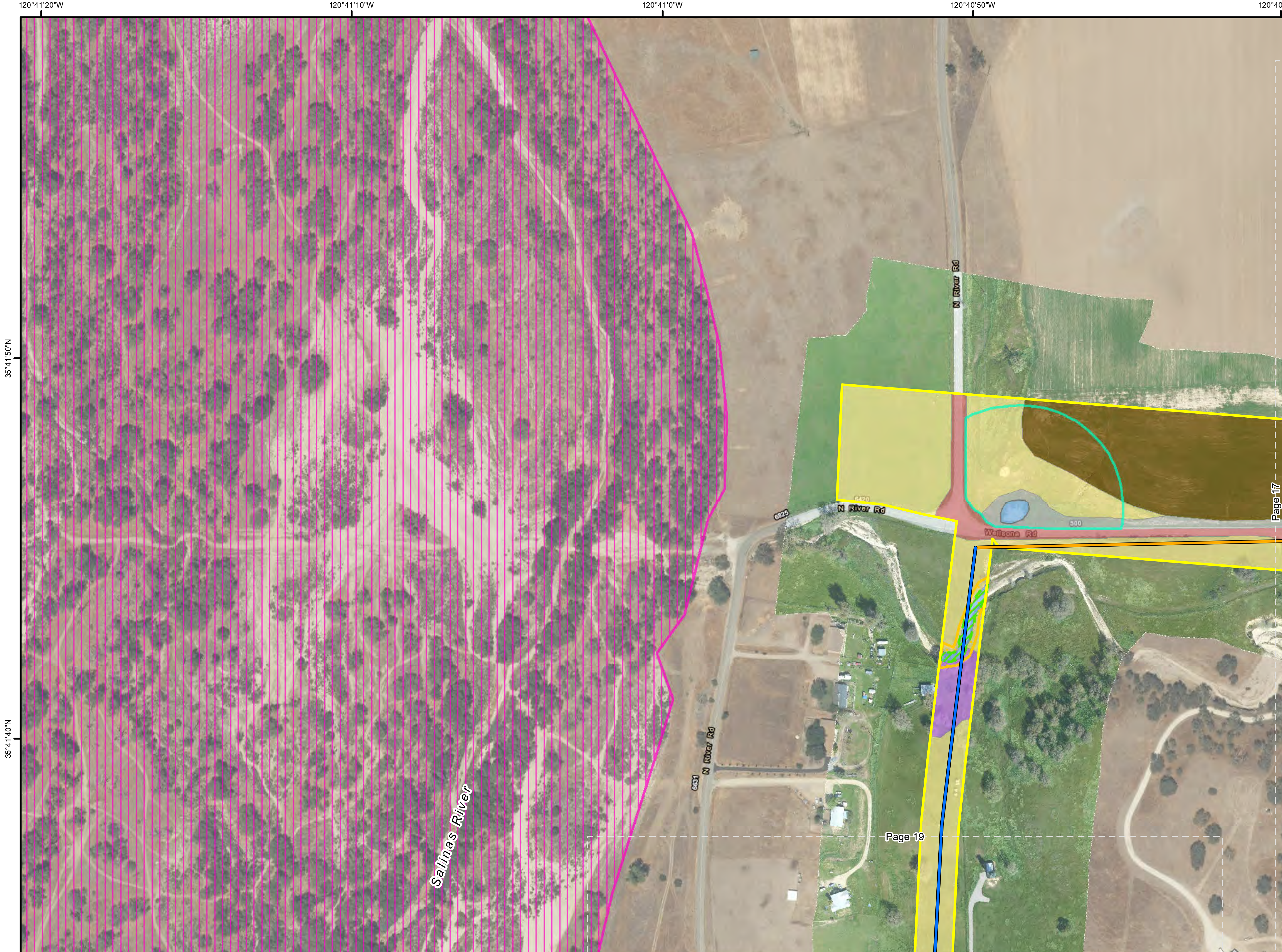


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:3,000

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 18 of 42

Legend

- Biological Study Area

Project Area

- New 70 kV Power Line Segment
- Reconductoring Segment

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Ruderal
- Sandy wash
- Urban/Developed

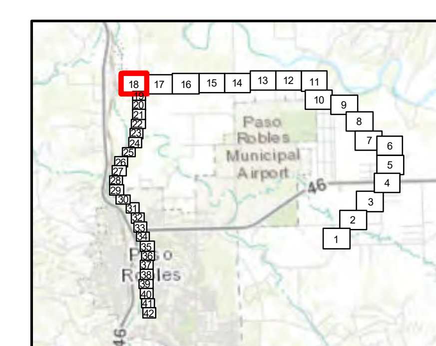
Other Features

- Potential least Bell's vireo habitat
- Seasonal wetland/potential vernal pool fairy shrimp habitat
- Potential vernal pool fairy shrimp habitat buffer

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 19 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

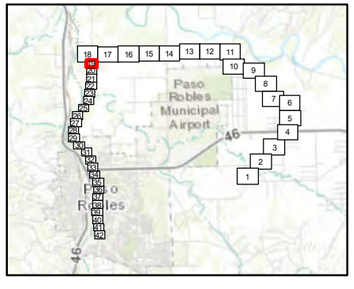
Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

Biological Study Area

Project Area

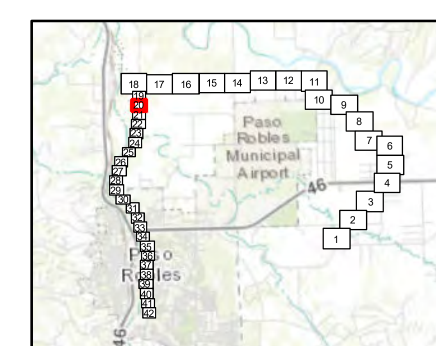
Reconductoring Segment

Vegetation Communities

Agricultural

Nonnative grassland

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:31:11 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

120°41'0"W

120°40'50"W

35°41'10"N

N River Rd

N River Rd

N River Rd

Page 20

Page 22

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 21 of 42

Legend

- Biological Study Area

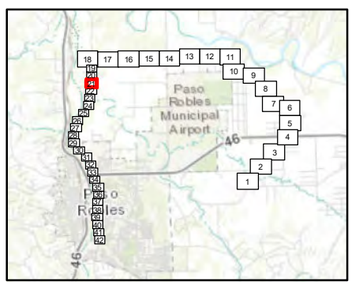
Project Area

- Reconductoring Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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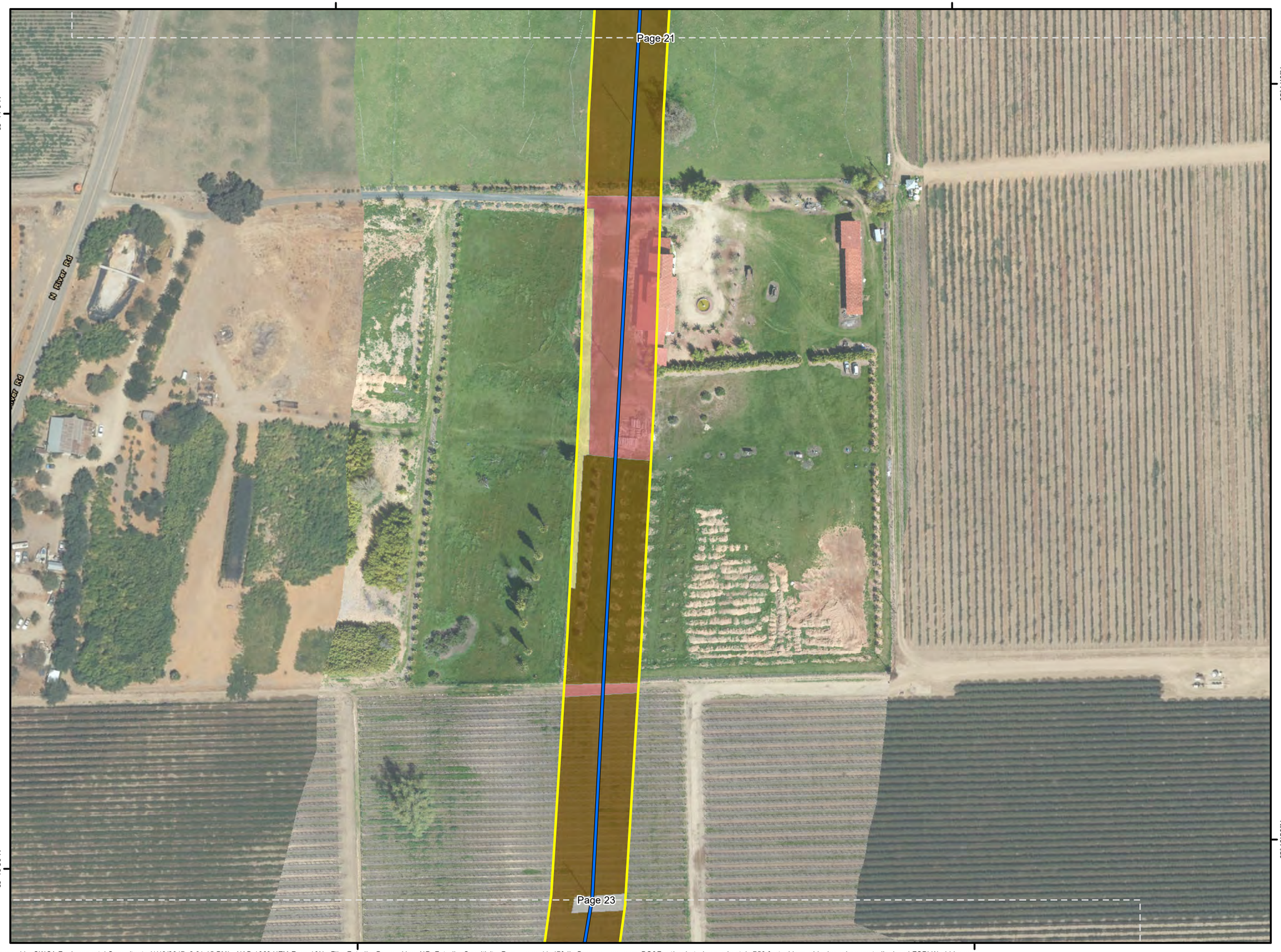


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 22 of 42

Legend

- Biological Study Area

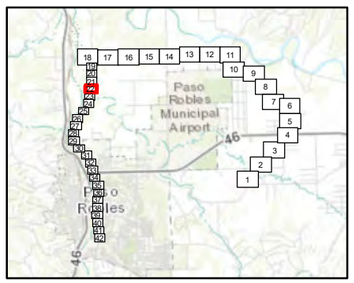
Project Area

- Reconductoring Segment

Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'0"W

120°40'50"W

Page 22

Page 24

35°40'40"N

35°40'40"N

Huerhuero Creek

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 23 of 42

Legend

- Biological Study Area

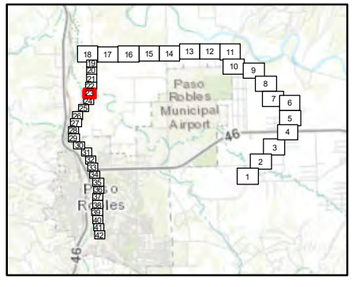
Project Area

- Reconductoring Segment

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'10"W

120°41'0"W

120°40'50"W

35°40'30"N

Page 23

N River Rd

Huerhuero Creek

Page 25

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 24 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Agricultural
- Blue oak woodland
- Nonnative grassland
- Urban/Developed

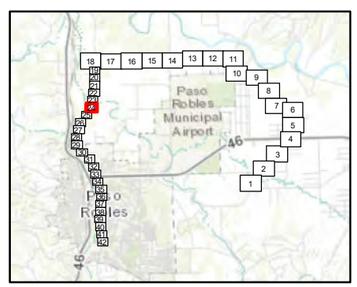
Other Features

- Potential least Bell's vireo habitat

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'20"W

120°41'10"W

35°40'20"N

Page 24

Salinas River

N River Rd

Unnamed drainage

Page 26

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 25 of 42

Legend

- Biological Study

Project Area

- Reconductoring Segment
- No Access

Vegetation Communities

- Agricultural
- Blue oak woodland
- Central Coast cottonwood-sycamore riparian forest
- Nonnative grassland
- Urban/Developed

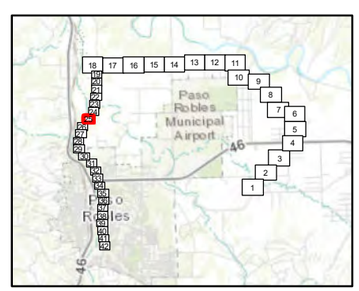
Other Features

- Potential least Bell's vireo habitat
- Detention basin, potential VPFS
- Potential vernal pool fairy shrimp habitat buffer

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'30"W

120°41'20"W

35°40'10"N

Page 25

Salinas River

N River Rd

4437

Page 27

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 26 of 42

Legend

Biological Study

Project Area

Reconductoring Segment

Vegetation Communities

Central Coast cottonwood-sycamore riparian forest

Nonnative grassland

Urban/Developed

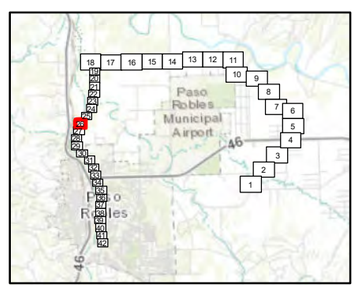
Other Features

Potential least Bell's vireo habitat

Potential Jurisdictional Waters

Potential CDFW Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'30"W

120°41'20"W

35°40'0"N

35°39'50"N

Salinas River

N River Rd

Page 26

Page 28

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 27 of 42

Legend

- Biological Study

Project Area

- Reconductoring Segment

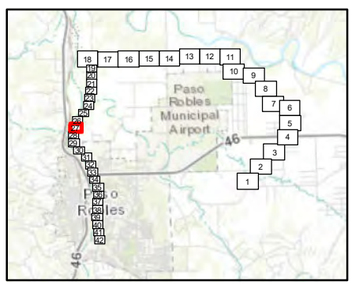
Vegetation Communities

- Nonnative grassland
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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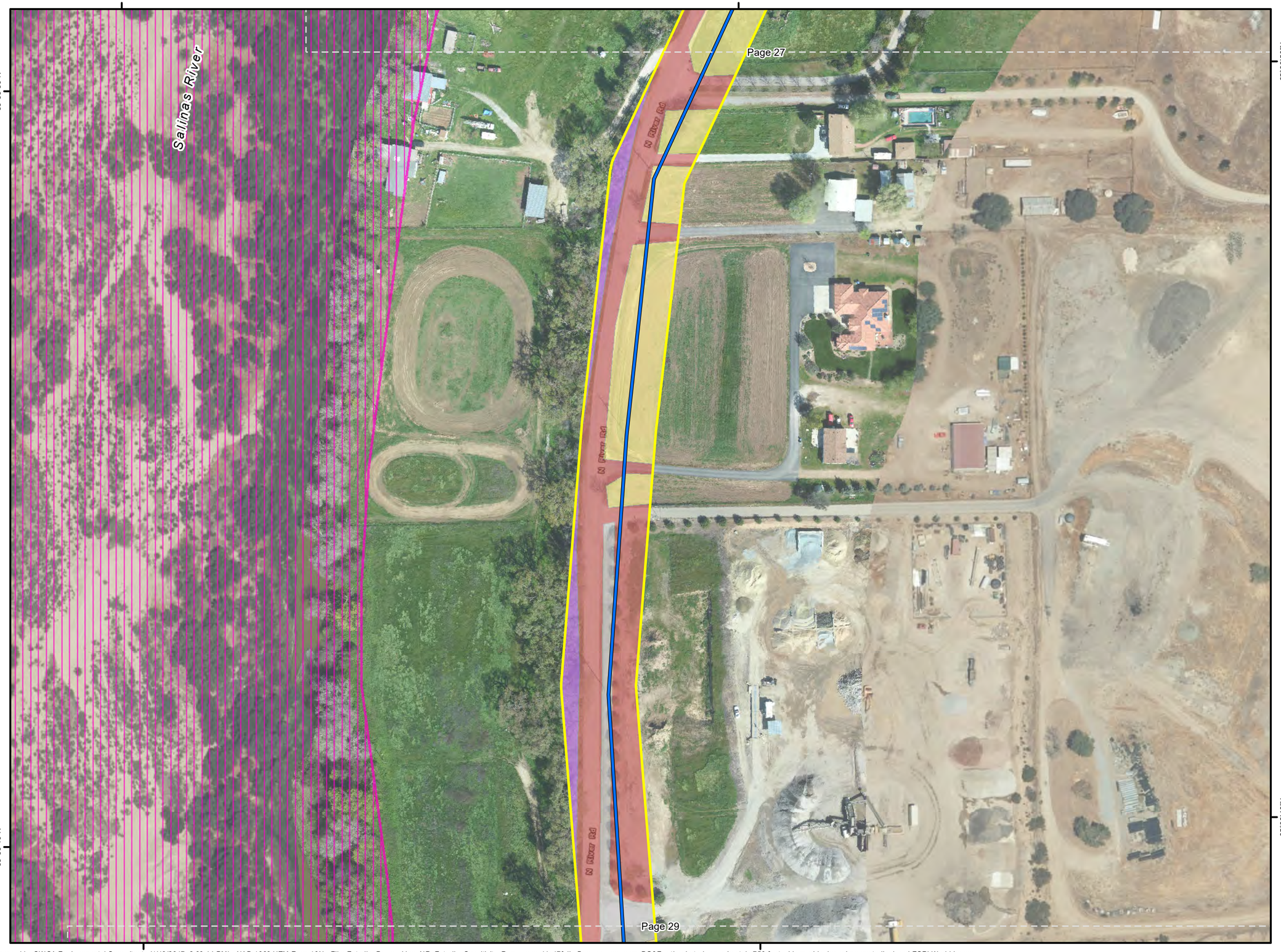


Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 28 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

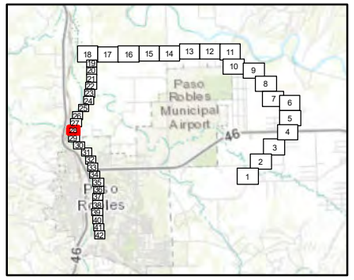
Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:33:44 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

120°41'40"W

120°41'30"W

Page 28

Salinas River

Unnamed drainage

Page 30

35°39'30"N

35°39'30"N

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 29 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Coastal and valley freshwater marsh
- Nonnative grassland
- Ruderal
- Urban/Developed

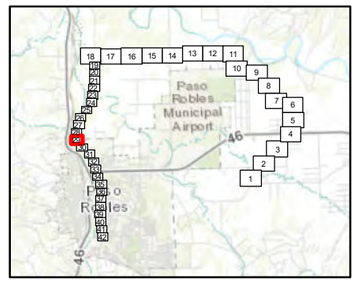
Other Features

- Potential least Bell's vireo habitat

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'30"W

120°41'20"W

35°39'20"N

Page 29

Page 31

N River Rd

SR 46

Unnamed drainage

Salinas River

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 30 of 42

Legend

- Biological Study

Project Area

- Reconductoring Segment

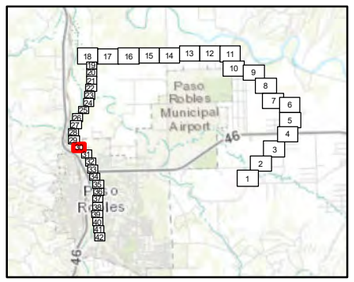
Vegetation Communities

- Agricultural
- Nonnative grassland
- Ruderal
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



Prepared by SWCA Environmental Consultants (1/19/2017, 2:34:21 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

Biological Study Area

Project Area

Reconductoring Segment

Vegetation Communities

Blue oak woodland

Nonnative grassland

Ruderal

Urban/Developed

Other Features

Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).

Prepared by SWCA Environmental Consultants (1/19/2017, 2:34:39 PM) - NAD 1983 UTM Zone 10N - File: Estrella_Power_Line_NR_Estrella_Sensitivity_Resources_11x17full - Basemap sources: PG&E orthophoto (approximately 750-foot-wide corridor based on centerline) and ESRI World Imagery

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

Biological Study Area

Project Area

Reconductoring Segment

Vegetation Communities

Blue oak woodland

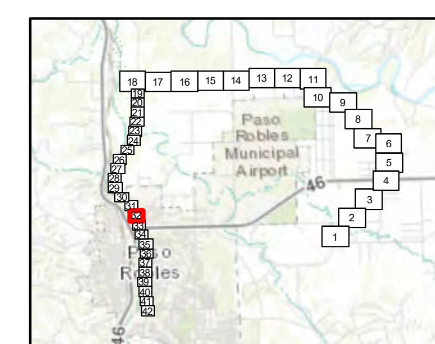
Ruderal

Urban/Developed

Other Features

Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'0"W

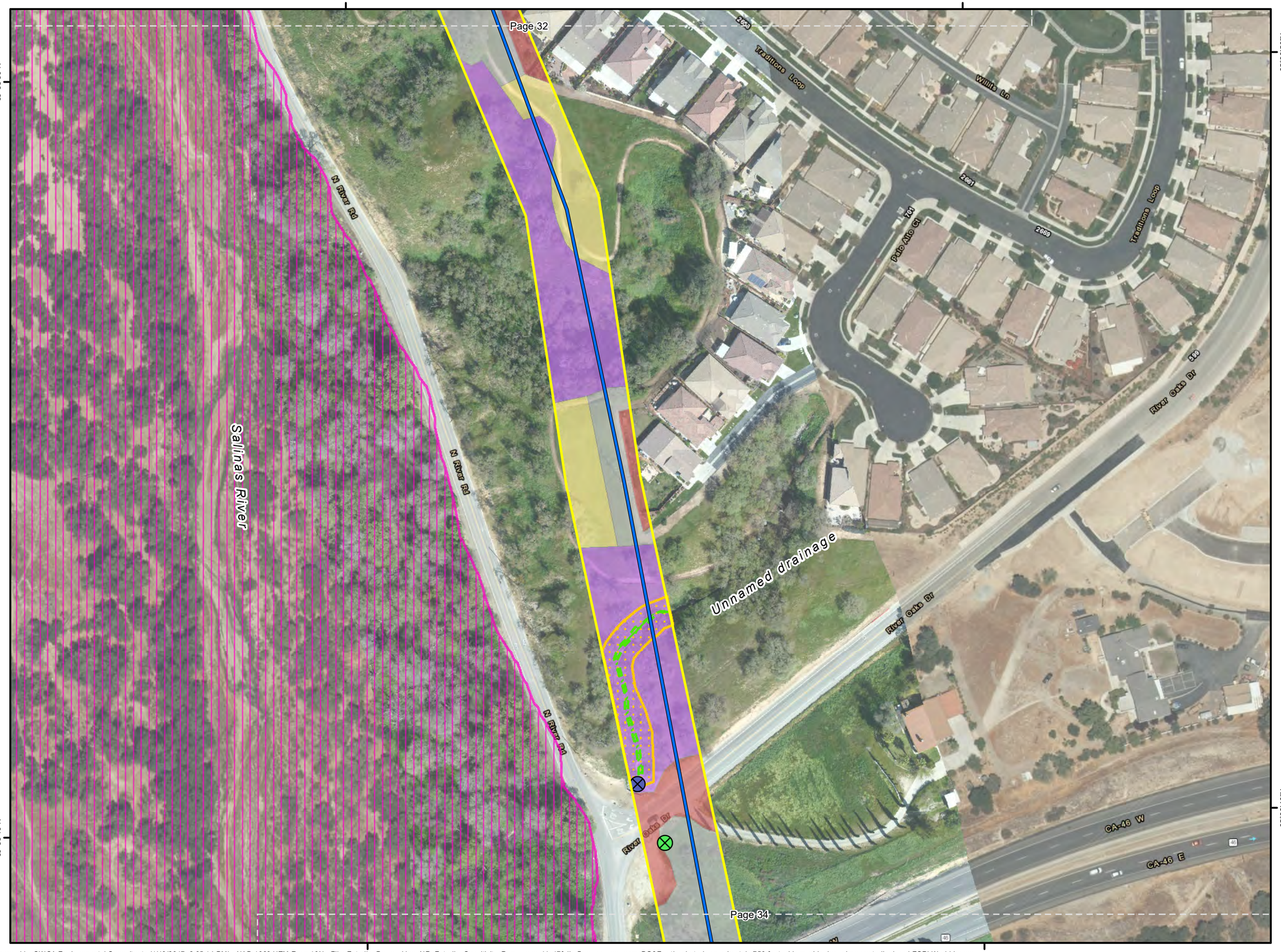
120°40'50"W

35°38'50"N

35°38'40"N

Page 32

Page 34



N

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

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Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

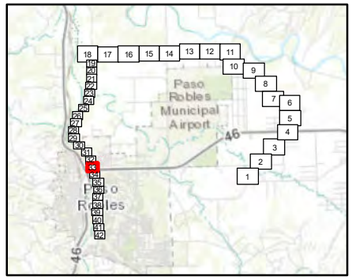
Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Culverts

- Culvert inlet
- Culvert outlet

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°41'0"W

120°40'50"W

Page 33

Page 35

35°38'30"N

35°38'30"N

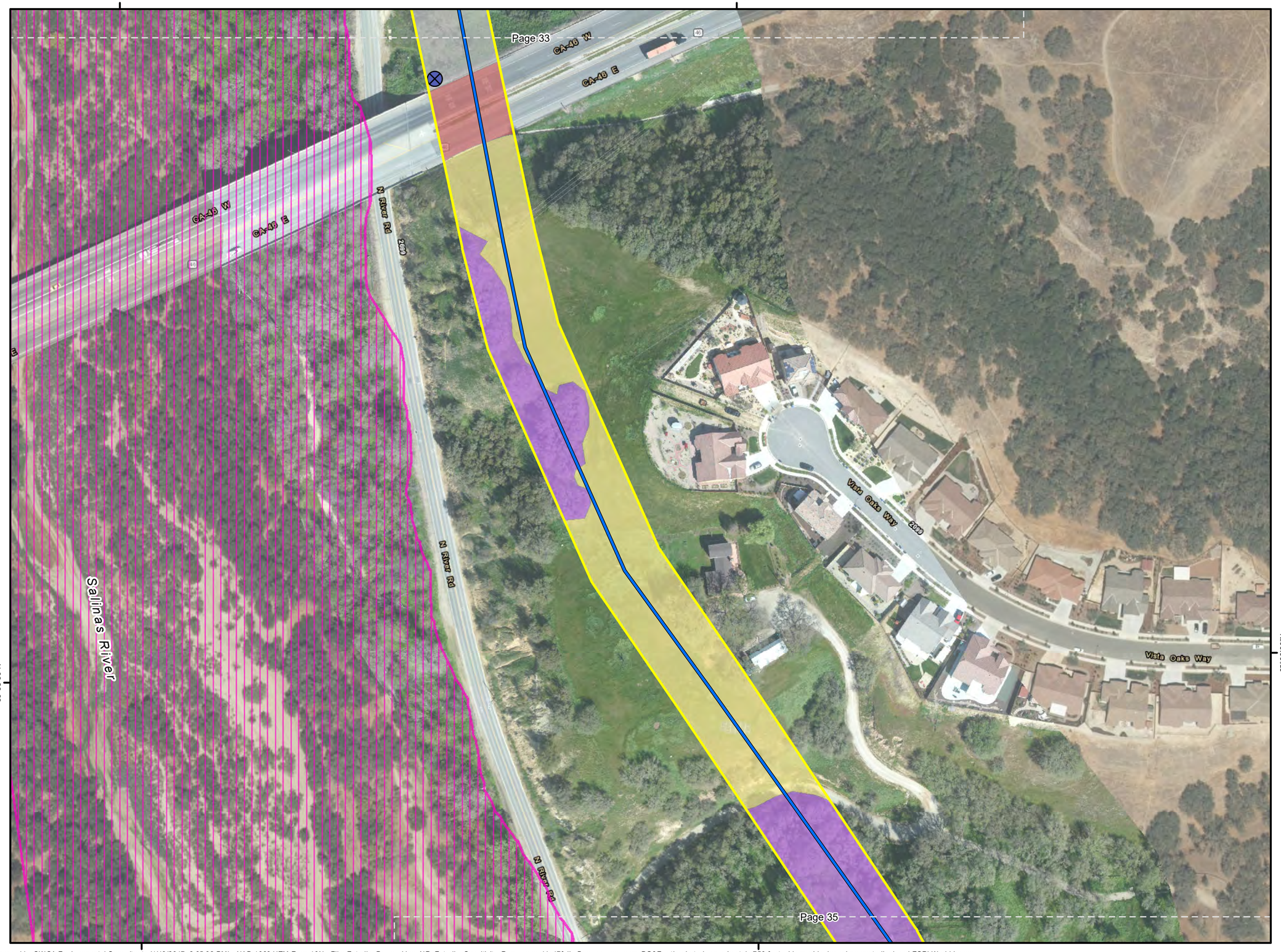
CA-46 W

CA-46 E

N River Rd

Vista Oaks Way

Salinas River



Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 34 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

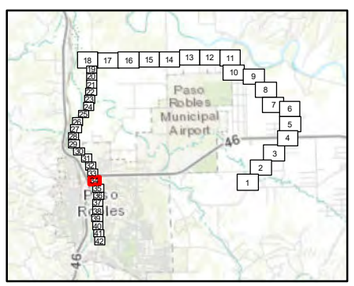
Other Features

- Potential least Bell's vireo habitat

Culverts

- Culvert inlet

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'50"W

120°40'40"W

35°38'20"N

Page 34

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Unnamed drainage

N River Rd

Kiack Rd

Via Lantana

Via Magnolia

Via Flora

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 35 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Blue oak woodland
- Ruderal
- Urban/Developed

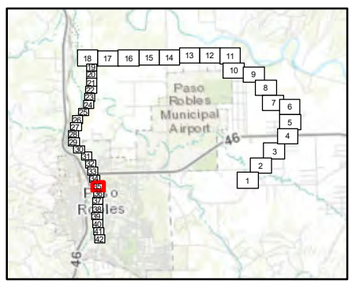
Other Features

- Potential least Bell's vireo habitat

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'50"W

120°40'40"W

35°38'10"N

Page 35

Page 37

35°38'10"N

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 36 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

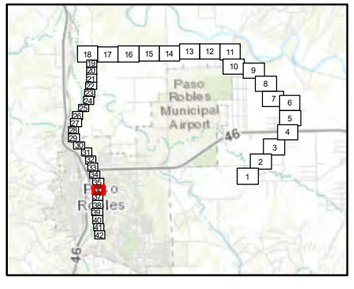
Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

Biological Study Area

Project Area

Reconductoring Segment

Vegetation Communities

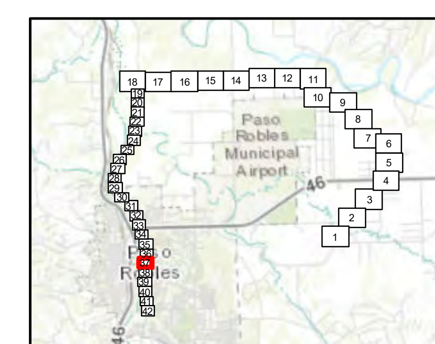
Blue oak woodland

Nonnative grassland

Ruderal

Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 38 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

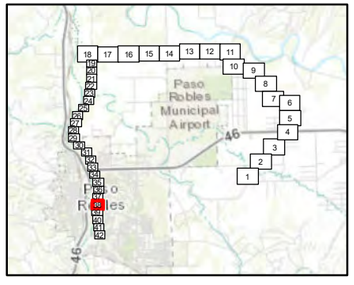
Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'50"W

120°40'40"W

Page 38

Capitol Hill Dr

Unnamed drainage

S River Rd

Mesa Ave

Salinas River

Navajo Ave

Red Cloud Rd

698

Page 40

35°37'30"N

35°37'30"N

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 39 of 42

Legend

- Biological Study Area

Project Area

- Reconductoring Segment

Vegetation Communities

- Blue oak woodland
- Nonnative grassland
- Ruderal
- Urban/Developed

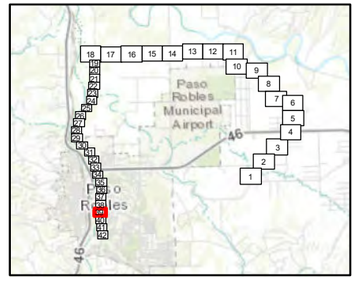
Other Features

- Potential least Bell's vireo habitat

Potential Jurisdictional Waters

- Potential CDFW Jurisdiction
- Potential USACE Jurisdiction

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Legend

Biological Study

Project Area

Reconductoring Segment

Vegetation Communities

Blue oak woodland

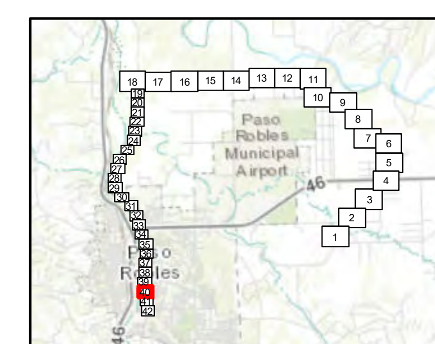
Nonnative grassland

Urban/Developed

Other Features

Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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120°40'50"W

120°40'40"W

35°37'10"N

Page 40

Page 42

Navajo Ave

S River Rd

Rio Ct

Vista del Rio Ct

Cheyenne Dr

Rose Ln

Rainbow Ct

Mohawk Ct

Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

Page 41 of 42

Legend

- Biological Study

Project Area

- Reconductoring Segment

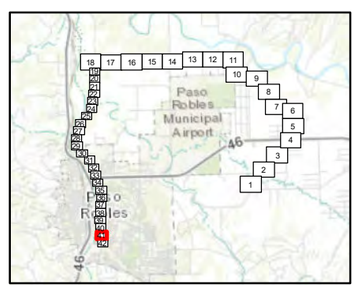
Vegetation Communities

- Blue oak woodland
- Urban/Developed

Other Features

- Potential least Bell's vireo habitat

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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Pacific Gas and Electric Company

0 62.5 125 250 Feet

1:1,500

Estrella Substation and Paso Robles Area Reinforcement Project

Estrella Route

Biological Resources Map

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Legend

- Biological Study

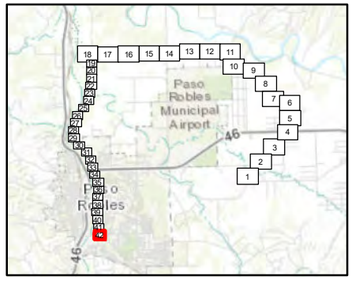
Project Area

- Reconductoring Segment
- Paso Robles Substation (Existing)

Vegetation Communities

- Urban/Developed

Note: To accommodate pole site work areas, assume a 50-foot buffer around all potential jurisdictional waterways (buffer not shown). For active nest avoidance, assume a 500-foot buffer around potential least Bell's vireo suitable habitat (buffer not shown).



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