Caballero CA Storage, LLC

Caballero Energy Storage Project, San Luis Obispo County, California

Biological Resources Assessment

TETRA TECH

September 2020

Caballero Energy Storage Project
Biological Resources Assessment

650, 696 Joshua Street, Nipomo, CA 93434

APN: 090-281-011

Conditional Use Permit

County Case Number: DRC2018-00239

Prepared for:

Caballero CA Storage, LLC

4747 Executive Drive, Suite 1340, San Diego, CA 92121

(805) 403-8916

james.diven@origisenergy.com

Prepared by:

Tetra Tech, Inc.

5383 Hollister Avenue, Suite 130, Santa Barbara, CA 93111

(805) 681-3235

amy.noddings@tetratech.com

September 2020

Reporting Biologist:

Daniel Berg, Biologist

Tetra Tech, Inc.

(805) 705-1421

daniel.berg@tetratech.com

As the qualified lead field biologist, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visit associated with this report.

September 22, 2020

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Executive Summary/Synopsis

The proposed Caballero Energy Storage Project (Project) entails development of battery storage on the approximately 20.4-acre site in San Luis Obispo County, CA. The development would occur on approximately six acres of existing strawberry fields or disturbed areas. The Project is in development stage, but the overall size of the area for the Project will remain generally consistent. Structures and physical alterations of the Project include industrial buildings and electrical infrastructure, a retention basin, a fire suppression tank, security fencing, and access roads. The Project will not require any full-time employees after construction is complete.

The biological survey area included the entire site 20.4-acre in addition to a 100-foot buffer around the site (Figure 1). A portion of the Pacific Gas & Electric (PG&E) Mesa substation property that occurs in the 100-foot buffer northeast of the site was surveyed using binoculars from the fenceline on the boundary of the site. Prior to the survey, a literature and data review of pertinent background information for the Project site was completed (CDFW 2020a, 2020b; CNPS 2020; NRCS 2019; USFWS 2020a, 2020b, 2020c). The biological survey of the site was conducted by Daniel Berg on July 1, 2020. The purpose of the survey was to perform a preliminary biological resources assessment of the site.

No sensitive natural communities were found during the survey. The site consisted of disturbed areas (7.3 acres), a landscaped residential area (0.8 acres), and planted strawberry fields (10.9 acres) (Figure 2). No native habitats were found on or adjacent to the site, and vegetated areas on the site were sparse, heavily disturbed, and dominated by non-native plants. The area surrounding the site supports agricultural, residential, and industrial uses. The Mesa substation property was comprised of paved surfaces and disturbed areas dominated by dense, low-height non-native grasses. Potential habitat for nesting birds was found, which consisted of trees on and east of the site, and power poles north and east of the site. No jurisdictional wetlands or riparian habitat were found on the site.

Special-status species with the potential to occur in the Project area were identified based on the results of the background research and habitats found on the site during the survey. No special-status species or bird nests were found during the survey. Small mammal holes were found throughout the site but no large burrows or dens that could be used by burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), or other special-status species were observed. These holes were likely created by small rodents, such as gophers (*Thomomys* spp.), rats (*Rattus* spp.), or California ground squirrels (*Otospermophilus beecheyi*).

Potential impacts from the proposed Project would include direct ground disturbance, both short-term (e.g., equipment staging) and long-term (e.g., grading, development), and short-term noise from the use of heavy machinery during construction. Impacts to biological resources from the Project are anticipated to be less than significant with implementation of the avoidance, minimization, and mitigation measures included in Section 5 (BIO-1 through BIO-5). With implementation of these measures, the Project would not result in a loss of unique or special-status species or their habitats; would not substantially reduce the extent, diversity, or quality of native or other important vegetation; would not impact wetland or riparian habitat; and, would not introduce substantial barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife. The need to add or revise measures should be assessed upon approval of the final design (e.g., if removal of trees becomes necessary).

1 Introduction

The proposed Caballero Energy Storage Project (Project) entails development of battery storage on the Project site in San Luis Obispo County (County), CA. The site is located on private property that is designated by the County as rural land. No change of land use designation is proposed for the site. Figure 1, located at the end of this report, shows the Project location.

The site is approximately 20.4 acres, but the proposed construction footprint size is approximately six acres. The preliminary site plan is provided in Appendix A. It should be noted that the Project is in the development stage, so the system design has not yet been finalized. The development dimensions provided are approximate and may vary based on the final design, but the overall size of the area for the Project will remain generally consistent. The development proposal description is as follows:

- Battery Energy Storage System (BESS) containers: The containers house batteries as well as other system components such as the battery cabinets, battery management system, HVAC system (to maintain internal container temperature), system controller, and electrical distribution panel. Containers are typically made of steel. Such containers are considered unoccupied, with access only by approved personnel for maintenance or repair of any of the BESS system components. Batteries have not yet been selected for this Project, but lithium ion batteries are the most commonly used.
- BESS inverters: This inverter converts the variable direct current output of the BESS to alternating current.
- Pad mounted transformers: The transformers are used to interface the underground medium voltage collection cables at points in which the BESS service drops are connected to step down the primary voltage on the collection system to a lower voltage that is supplied by the BESS inverters.
- Project substation: The substation supports the interface between the BESS facility and the electrical grid and can step up or down the voltage to connect to the grid as appropriate. It also houses some monitoring, communication, and controls equipment that will facilitate the connection to the Pacific Gas & Electric (PG&E) Mesa substation. The Mesa substation serves as the point of interconnection for the BESS.
- Main power transformer: The transformer is a device that will change the voltage of electricity that flows within the BESS facility. This transformer is responsible for stepping up the voltage of electricity between the medium voltage collection system and the high voltage system at the Point of Interconnection.
- Auxiliary transformer: number, size, and location to be determined. This transformer provides power to the auxiliary equipment of the BESS facility during its normal operation, including air conditioning units, power for internal lighting, and other internal equipment needs for the Project to operate safely.

- Fire suppression tank: one included (size to be determined), located on the northeast portion of the facility. The fire suppression tank provides a source of water that is dedicated to the fire suppression system and for use by first responders in case of a fire. The design of the fire suppression system is not yet finalized, but will be designed in accordance with federal, state and local regulations.
- Retention basin: designed to capture stormwater discharge, located on the west portion of the facility.
- Security fencing: bordering the facility.
- Access roads: multiple roads included to provide vehicle access, located throughout the facility.

The Project will also include an overhead generation tie line (gen-tie line) connecting the facility with the PG&E Mesa substation that will go from the Project substation over the fence into the Mesa substation on the adjacent parcel. The interconnection gen-tie line will be approximately 1,000 feet of 230kV overhead line, consisting of an 800-foot segment from the dead end in the Project collector substation, north to a monopole turning structure, and a 200-foot segment from the turning structure to the point of interconnection at the dead end inside the Mesa substation (Appendix A). The route of the approximately 1,000-foot gen-tie line will connect into the northwest side of the substation and will be routed to avoid existing power lines. The gen-tie line will be built using similar materials as existing power lines on the PG&E Mesa substation property.

The Project will be built as one system with the following tasks being performed in the following anticipated order:

- Clearing and grubbing.
- Rough grading (with focus on development area and retention basin).
- Install facility fencing.
- Coordinate with PG&E to ensure interconnection facilities are being constructed.
- Project substation ground grid, which will be installed as part of the Project fence.
- Excavate MV collection trenching.
- Install storm drain culverts.
- Trenching to support fire suppression system.
- Install MV collection cables.
- Construct equipment pads.
- Install equipment.
- Install water tank and connect to fire suppression infrastructure.

- Construct gen-tie line to interconnect BESS Project substation with the existing PG&E Mesa substation.
- Complete access road class 2 base and driveway improvements.
- Conduct final commissioning of all equipment.
- Conduct training and coordination with Operations and Maintenance team and local first responders.
- Initiate Project Commercial Operations.

While the Project will require on-site personnel during construction, it will not require any full-time employees and will be operated remotely and only require annual maintenance. Maintenance may include the following:

- Replacing batteries that are not performing at their peak.
- Changing the oil in transformers (either the main transformer in the Project substation or in the smaller transformers adjacent to the inverters).
- Maintenance of all ancillary systems – fire suppression, storm water, access roads, etc.

2 Existing Conditions

The Project site is located in the southern County, approximately 1.2 miles north of Santa Maria, CA. The physical address of the site is 650 and 696 Joshua Street, Nipomo, CA (township 11 north, range 34 west, sections 21, 27, and 28), Assessor's Parcel Number (APN) 090-281-011. The site is within the South County Planning Area and the South County Inland Sub Area. The northwest portion of the site is also within the community of Nipomo.

The biological survey area included the entire 20.4-acre site and a 100-foot buffer around the site (Figure 1). The 100-foot buffer included a portion of the PG&E Mesa substation property that is located northeast of the site. A 100-foot buffer was selected based on the potential for American badger (*Taxidea taxus*) to occur in the vicinity of the site and typical buffers used for burrowing mammals (California Department of Fish and Wildlife [CDFW] 2020a). Most of the 100-foot buffer was on private property or behind locked fences, including a portion of the Mesa substation property, so the survey in the buffer area was conducted primarily by using binoculars. In addition, a portion of the western disturbed area was inaccessible and was surveyed using binoculars from the fenceline (Figure 2).

The region has mild winters, warm summers, and moderate rainfall, with temperatures typically between 40 to 74 degrees Fahrenheit (°F) and annual rainfall averaging approximately 17 inches. Elevation at the site ranges from approximately 89 to 93 meters and the topography is flat. The site currently supports agricultural (cultivated strawberries), residential, and equipment storage uses and consists of disturbed and ruderal areas. The area surrounding the site supports agricultural, residential, and industrial uses. The site is bounded by the PG&E 230 kilovolt Mesa substation to the

northeast, Joshua Street to the southeast, and agricultural uses. U.S. Highway 101 is located 0.25-mile northeast of the site. No native habitats are present on or adjacent to the site.

Soil types on the site are described from the National Resources Conservation Service (NRCS) soil survey in Table 1 (NRCS 2019).

Table 1: Soil Types within Project Site

Soil Map Unit Symbol	Soil Map Unit Name	Approximate Acres (Percent) in Project Site	Natural Drainage Class	Hydric Soil Rating
140 (hbnk)	Garey sandy loam, 2 to 9 percent slopes	13.1 (63.7%)	Well drained	No
184 (hbpz)	Oceano sand, 0 to 9 percent slopes	7.5 (36.3%)	Excessively drained	No

Source: NRCS 2019.

3 Methodology

Prior to the survey, a literature and data review of pertinent background information for the Project site was completed, which included CDFW California Natural Diversity Database (CNDDB) data (CDFW 2020a), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants data (CNPS 2020), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) data (USFWS 2020a), and USFWS National Wetlands Inventory (NWI) data (USFWS 2020b). A nine USGS quadrangle search of the databases was conducted on Nipomo and the eight surrounding quadrangles (CDFW 2020a; CNPS 2020).

The biological survey of the site was conducted by Daniel Berg on July 1, 2020 from 9:00 a.m. to 3:00 p.m. for a total of six hours. The purpose of the survey was to perform a preliminary biological resources assessment of the site. The site and a 100-foot buffer around the site were surveyed on foot. A portion of the PG&E Mesa substation property that occurs in the 100-foot buffer northeast of the site was surveyed using binoculars from the fenceline on the boundary of the site. The survey of the southern portion of Mesa substation property was conducted at multiple vantage points along the northern boundary of the site. Strawberries were being harvested on the Project site for the duration of the survey. Representative photos were taken during the survey and are provided in Appendix B. The starting/ending weather conditions of the survey were as follows:

- Temperature: 57 / 68 degrees Fahrenheit.
- Wind Speed: 0-3 / 5-9 miles per hour.
- Cloud Cover: 100 / 50 percent.

Vegetation communities and other landcover types were mapped using a sub-meter Arrow 100 Global Positioning System (GPS) unit and the ArcGIS Collector application on a tablet. Polygons were collected for the boundaries of the mapped areas. Nomenclature for vegetation communities followed *A Manual of California Vegetation*, second edition (Sawyer et al. 2009), or a best-fit definition

was applied based on habitat descriptions and land-use. All plant and wildlife species and potential jurisdictional resources observed on the site were recorded.

Because the site is located within a potential Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*) habitat area (San Luis Obispo County 2020), a blooming status check was conducted immediately prior to the survey at a nearby reference population of the species. The population visited was located along Ormonde Road off Price Canyon Road. Visiting the reference population ensured that the survey was conducted during the appropriate timeframe, when the species was identifiable. Numerous Pismo clarkia individuals were observed in flower at the reference population. Photos taken of the species at the reference site are provided in Appendix B.

4 Results

4.1 Habitats

Four sensitive natural communities were identified in a nine-quadrangle CNDDB search around the Project site (CDFW 2020a): central dune scrub, central foredunes, coastal and valley freshwater marsh, and southern vernal pool. No sensitive natural communities were found during the survey.

Vegetation communities and habitats on the site were mapped during the survey (Figure 2). Representative photos are provided in Appendix B. The site consisted of disturbed areas (7.3 acres), a landscaped residential area (0.8 acres), and planted strawberry fields (10.9 acres). No native habitats were found on or adjacent to the site, and vegetated areas on the site were sparse, heavily disturbed, and dominated by non-native plants. The disturbed areas are used for equipment storage and residential purposes and ranged from 60 to 90 percent bare ground. Dominant plants consisted of non-native herbs, mustards, and grasses, such as pigweed amaranth (*Amaranthus albus*), Mediterranean hoary mustard (*Hirschfeldia incana*), and black mustard *(Brassica nigra*). The landscaped residential area consisted of planted ornamental trees and shrubs. Trees were predominantly pines (*Pinus* sp.) and palms (*Syagrus romanzoffiana*, *Washingtonia* sp.) and shrubs included oleander (*Nerium oleander*), bougainvillea (*Bougainvillea* sp.), and amphilophium (*Amphilophium* sp.). The strawberry fields were densely planted and are actively farmed. On the fringes of the fields, non-native herbs and grasses were dominant.

The PG&E Mesa substation property was comprised of paved surfaces within the substation and disturbed vegetated areas surrounding the substation. The PG&E Mesa substation was surrounded by chain-link fence. The disturbed areas were dominated by dense, low-height non-native grasses with adjacent patches of bare ground. A photo of this property is provided in Appendix B (Photo 13). A desktop review of aerial imagery also indicates that trees occur on the Mesa substation property to the north and east of the substation (outside the 100-foot buffer).

The gen-tie line would require three monopole installations: two within the survey area and one within the Mesa substation property. The two proposed poles within the survey area would be installed on existing strawberry fields or on an existing dirt road. The proposed pole location within the Mesa substation property could not be surveyed due to access restrictions. However, based on a

review of aerial imagery, this pole would be installed on a disturbed vegetated area that is likely very similar to the adjacent disturbed vegetated area that was surveyed within the 100-foot buffer on the Mesa substation property.

No wetlands from the NWI Mapper were identified on the site (USFWS 2020b). According to the USGS National Hydrographic Dataset, there are no streams present within the site. The site and adjacent area are not located within a floodplain (Federal Emergency Management Agency [FEMA] 2019). While small wet areas were found during the survey on the western boundary of the strawberry fields, this was due to recent irrigation of the fields and no wetland vegetation was present. A dry artificial roadside ditch was also found along the dirt road on the northern site boundary. This ditch was unvegetated, unlikely to support hydric soils, likely only contains water when artificially added to the site during irrigation, and does not connect to any tributaries or other water features. The ditch was likely created to keep runoff from the fields from entering and degrading the dirt road. Photos of these areas are provided in Appendix B. None of these areas are considered potentially jurisdictional and no other physical features or wetlands, drainages, or riparian areas were found during the survey.

The site is not located in any designated sensitive areas, including USFWS Critical Habitat (USFWS 2020c), California Coastal Zone, or County Sensitive Resource Zone.

4.2 Species (Endangered, Threatened, & Rare) and Nests

The special-status species in Table 2 are those with the potential to occur in the Project area based on the results of the background research described above and habitats found on the site. Special-status species are defined as plants and wildlife holding a status of sensitive, threatened, endangered, rare, candidate, species of special concern, fully protected, watch list, or Birds of Conservation Concern as defined by CDFW, USFWS, CNPS, or BLM. Species that do not have the potential to occur on the site based on habitats present are not included in Table 2, such as aquatic or coastal species, wildlife outside their range, or plants outside their elevation range. Plants that only occur in marshes and swamps, meadows and seeps, coastal dunes or scrub, chenopod scrub, riparian scrub, chaparral, playas, vernal pools, forests, and/or woodlands are not included because these habitats do not occur on the site. California tiger salamander (*Ambystoma californiense*) was considered but not included because the closest known occurrence of this species is greater than five miles from the site (CDFW 2020a). The USFWS recognizes that the maximum dispersal distance for California tiger salamanders from breeding ponds is 1.3 miles. No breeding ponds are known to occur within this distance from the site. Arroyo toad (*Anaxyrus californicus*), coast range newt (*Taricha torosa*), and foothill yellow-legged frog (*Rana boylii*) were also not included because the closest known occurrences of these species are greater than 10 miles from the site (CDFW 2020a). No special-status species or native habitats were found during the survey.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Plants						
Agrostis hooveri	Hoover's bent grass	None	None/1B.2	Usually sandy, closed-cone coniferous forest, chaparral, cismontane woodland, valley and foothill grassland, occurs between 6 - 610 meters (m).	Apr-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Amsinckia douglasiana	Douglas' fiddleneck	None	None/4.2	Monterey shale, cismontane woodland, valley and foothill grassland, occurs between 0 - 1,950 m.	Mar-May	No native habitats that support this species were found on or adjacent to the site.
Astragalus didymocarpus var. *milesianus*	Miles' milk-vetch	None	None/1B.2	Coastal scrub, grassy areas, occurs between 20 - 90 m.	Mar-Jun	No native habitats that support this species were found on or adjacent to the site.
Calochortus obispoensis	San Luis mariposa lily	None	None/1B.2	Often serpentinite, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, occurs between 50 - 730 m.	May-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Calystegia subacaulis ssp. *episcopalis*	Cambria morning-glory	None	None/4.2	Usually clay, chaparral, cismontane woodland, coastal prairie, valley and foothill grassland, occurs between 30 - 500 m.	Mar-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Castilleja densiflora var. *obispoensis*	San Luis Obispo owl's clover	None	None/1B.2	Sometimes serpentinite, meadows and seeps, valley and foothill grassland, occurs between 10 - 430 m.	Mar-May	No native habitats that support this species were found on or adjacent to the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Caulanthus californicus	California jewel-flower	FE	SE/1B.1	Sandy, chenopod scrub, pinyon and juniper woodland, valley and foothill grassland, occurs between 61 - 1,000 m.	Feb-May	No native habitats that support this species were found on or adjacent to the site.
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	None	None/1B.1	Valley and foothill grassland (alkaline), occurs between 0 - 230 m.	May-Nov	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Chorizanthe palmeri	Palmer's spineflower	None	None/4.2	Rocky, serpentinite, chaparral, cismontane woodland, valley and foothill grassland, occurs between 55 - 945 m.	Apr-Aug	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Cirsium scariosum var. *loncholepis*	La Graciosa thistle	FE	ST/1B.1	Mesic, sandy, cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), valley and foothill grassland, occurs between 4 - 220 m.	May-Aug	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Clarkia speciosa ssp. *immaculata*	Pismo clarkia	FE	SR/1B.1	Sandy, chaparral (margins, openings), cismontane woodland, valley and foothill grassland, occurs between 25 - 185 m.	May-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Convolvulus simulans	small-flowered morning-glory	None	None/4.2	Clay, serpentinite seeps, chaparral (openings), coastal scrub, valley and foothill grassland, occurs between 30 - 740 m.	Mar-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Deinandra increscens ssp. *villosa*	Gaviota tarplant	FE	SE/1B.1	Coastal bluff scrub, coastal scrub, valley and foothill grassland, occurs between 20 - 430 m.	May-Oct	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Deinandra paniculata	paniculate tarplant	None	None/4.2	Usually vernally mesic, sometimes sandy, coastal scrub, valley and foothill grassland, vernal pools, occurs between 25 - 940 m.	Mar-Dec	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Delphinium parryi ssp. *eastwoodiae*	Eastwood's larkspur	None	None/1B.2	Serpentinite, coastal, chaparral (openings), valley and foothill grassland, occurs between 75 - 500 m.	Feb-Mar	No native habitats that support this species were found on or adjacent to the site.
Dudleya abramsii ssp. *murina*	mouse-gray dudleya	None	None/1B.3	Serpentinite, chaparral, cismontane woodland, valley and foothill grassland, occurs between 90 - 525 m.	May-Jun	No native habitats that support this species were found on or adjacent to the site.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None	None/1B.1	Rocky, often clay or serpentinite, coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland, occurs between 5 - 450 m.	Apr-Jun	No native habitats that support this species were found on or adjacent to the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Lupinus ludovicianus	San Luis Obispo County lupine	None	None/1B.2	Sandstone or sandy, chaparral, cismontane woodland, grassy areas, occurs between 50 - 525 m.	Apr-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Mucronea californica	California spineflower	None	None/4.2	Sandy, chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland, occurs between 0 - 1,400 m.	Mar-Aug	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Phacelia hubbyi	Hubby's phacelia	None	None/4.2	Gravelly, rocky, talus, chaparral, coastal scrub, valley and foothill grassland, occurs between 0 - 1,000 m.	Apr-Jul	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.
Symphyotrichum defoliatum	San Bernardino aster	None	None/1B.2	Near ditches, streams, springs, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic), occurs between 2 - 2,040 m.	Jul-Dec	The survey was conducted during the blooming period for this species and it was not found on the site. No native habitats that support this species were found on or adjacent to the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Birds						
Accipiter striatus	sharp-shinned hawk	None	None/WL	Nesting habitats are dense forest, ideally with closed canopy. Foraging habitats are forest, suburban, agricultural. Home range is typically 0.9 - 2.8 square kilometers (Bildstein and Meyer 2000).	Mar-Jun	The site is in the species year-round range. The closest occurrence of this species, documented in 2003, is approximately 5.8 miles from the site (CDFW 2020a). This species was not observed during the survey and dense forest nesting habitat was not found. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.
Agelaius tricolor	tricolored blackbird	None	ST/SSC, BCC, S	Nesting habitats are wetlands and agricultural fields near water. Foraging habitats are cultivated fields, feedlots associated with dairy farms, wetlands.	Mar-Nov	The site is in the species year-round range. The closest occurrence of this species, documented in 1992, is approximately 11.8 miles from the site (CDFW 2020a). This species was not observed during the survey and near-water nesting habitat was not found. No water was found on or adjacent to the site. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Athene cunicularia	burrowing owl	None	None/SSC, BCC, S	Nesting and foraging habitats are desert or dune, savanna or grassland, urban, agricultural. Requires burrows or surrogate burrows (e.g., culverts, rock piles) for nesting and tends to select foraging locations near the burrow.	Feb-May	The site is in the species year-round range. The closest occurrence of this species, documented in 2009, is approximately 5.5 miles from the site (CDFW 2020a). This species was not observed during the survey and suitable burrows were not found. However, this species could come into the site in the future if suitable burrows are present.
Carduelis lawrencei	Lawrence's Goldfinch	None	None/BCC	Nesting and foraging habitats are woodlands, chaparral, weedy fields, coastal scrub, riparian, suburbs, ranches, desert arroyos, river floodplains, mesquite bosques, roadsides, cultivated fields, orchards, gardens, parks. Nests are usually near water.	Mar-Sep	The site is in the species breeding range. This species was not observed during the survey and near-water nesting habitat was not found. No water was found on or adjacent to the site. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Falco mexicanus	prairie falcon	None	None/WL, BCC	Nesting habitats are grasslands, shrub-steppe desert, mixed shrubs and grasslands, alpine tundra. Foraging habitats are grasslands, sage scrub, dry-farmed wheat fields, irrigated cropland, and agricultural fields. Nests are most often on cliffs or bluffs.	Feb-Sep	The site is in the species year-round range. The closest occurrence of this species, documented in 1981, is approximately 7.9 miles from the site (CDFW 2020a). This species was not observed during the survey and suitable cliff or bluff nesting habitat was not found. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.
Melospiza melodia	song sparrow	None	None/BCC	Nesting and foraging habitats are savanna or grassland, chaparral, forest, scrub, marsh, suburban, agricultural, riparian.	Apr-Aug	The site is in the species year-round range. While potential nesting habitat may occur on the site, this species was not observed during the survey. No nests were observed on the site. Therefore, this species could nest or forage on the site.
Pica nuttalli	yellow-billed magpie	None	None/BCC	Nesting and foraging habitats are oak woodlands, grassy oak savannas, suburban areas, agricultural areas, pastures, riparian areas, orchards, lower foothills. Nests are usually near water.	Apr-Jun	The site is in the species year-round range. This species was not observed during the survey and near-water nesting habitat was not found. No water was found on or adjacent to the site. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Picoides nuttallii	Nuttall's woodpecker	None	None/BCC	Nesting and foraging habitats are woodlands and wooded suburban areas.	Jan-Jun	The site is in the species year-round range. While potential nesting habitat may occur on the site, this species was not observed during the survey. No nests were observed on the site. Therefore, this species could nest or forage on the site.
Selasphorus sasin	Allen's hummingbird	None	None/BCC	Nesting habitats are coastal forest, scrub, chaparral. Foraging habitats are savanna or grassland, forest, urban.	Jan-Jul	The site is in the species breeding or migratory range. This species was not observed during the survey and nesting habitat was not found. No nests were observed on the site. Therefore, this species is unlikely to nest but could forage on the site.
Mammals						
Antrozous pallidus	pallid bat	None	None/SSC, S	Savanna or grassland, forest, scrub forest, suburban, agricultural, caves. Roost in caves, rock crevices, mines, hollow trees, buildings, usually near water.	Oct-Feb	The site is in the species year-round range. While buildings and ornamental trees were found on the site, the closest occurrence of this species, documented in 1994, is approximately 11.5 miles from the site (CDFW 2020a), and it was not observed during the survey. Therefore, this species is unlikely to occur on the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Taxidea taxus	American badger	None	None/SSC	Desert or dune, savanna or grassland, chaparral, mountains, marsh, agricultural. Requires dens for breeding.	Late summer-early fall	The closest occurrences of this species from the site are approximately five miles from 1988 and eight miles from 2006 (CDFW 2020a). This species was not observed during the survey and suitable dens were not found. Therefore, this species is unlikely to occur on the site, but could come into the site in the future if suitable dens are present.
Reptiles and Amphibians						
Phrynosoma blainvillii	coast horned lizard	None	None/SSC, S	Loose sandy soil, grasslands, coniferous forests, woodlands, chaparral, sandy washes.	May-Sep	The closest occurrence of this species, documented in 2008, is approximately 1.1 miles from the site and located in the Santa Maria River (CDFW 2020a). This species was not observed during the survey and no native habitats were found on or adjacent to the site. Habitat for this species is considered poor due to a high level of existing disturbance and lack of natural habitats. Therefore, this species is unlikely to occur on the site.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Rana draytonii	California red-legged frog	FT	None/SSC	Breeding habitats are water sources including lakes, ponds, reservoirs, slow streams, marshes, bogs, swamps. Mainly found in or near water, but can wander overland in humid forests, woodlands, grasslands, coastal scrub, streamsides with plant cover.	Late Nov-May	The closest occurrence of this species, documented in 2006, is approximately 0.6 miles south of the site in the Santa Maria River (CDFW 2020a). This species was not observed during the survey and no water or native habitats were found on or adjacent to the site. However, this species has the potential to make overland excursions and disperse through upland habitats during wet weather. The likelihood of the California red-legged frog reaching the site is low given the number of roads between the Santa Maria River and the site, but it is within their dispersal range.
Spea hammondii	western spadefoot	None	None/SSC, S	Open areas with sandy or gravelly soils, mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, mountains. Rain pools are necessary for breeding, but the species is almost completely terrestrial and may disperse large distances.	Jan-May (also capable of breeding at any time if rainfall conditions are favorable)	The closest occurrence of this species, documented in 1995, is approximately 1.5 miles from site (CDFW 2020a). This species was not observed during the survey and no water or native habitats were found on or adjacent to the site. However, this species has the potential to disperse from breeding ponds through upland habitats.

Table 2: Special-status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Federal Status	State Status/ Other Status	Habitat	Blooming or Nesting/Breeding Period	Notes
Invertebrates						
Danaus plexippus pop. 1	monarch - California overwintering populations	None	None/None	Aggregate in clusters at forested groves. Trees most commonly used for roosting are blue gum (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*). Clusters are also found on red gum (*Eucalyptus camaldulensis*), western sycamore (*Platanus racemosa*), coast redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), and others.	Sep-Mar (overwintering)	The closest occurrence of this species, documented in 2014, is approximately 1.8 miles from the site (CDFW 2020a). Ornamental trees were found on the site but no forested groves were found. Trees on and adjacent to the site occurred in isolation or small groupings. Therefore, this species is unlikely to overwinter on or near the site.

Notes:
- BCC USFWS Birds of Conservation Concern
- FE USFWS Federally Endangered
- FP CDFW Fully Protected
- FT USFWS Federally Threatened
- S Bureau of Land Management Sensitive Species
- SE CDFW State Endangered
- SSC CDFW Species of Special Concern
- ST CDFW State Threatened
- SR CDFW State Rare
- WL CDFW Watch List
- 1B CNPS Plants that are rare, threatened, or endangered in California and elsewhere
- 2B CNPS Plants that are rare, threatened, or endangered in California but more common elsewhere
- 4 CNPS Plants of limited distribution
- 0.1 CNPS Plants that are seriously threatened in California
- 0.2 CNPS Plants that are moderately threatened in California
- 0.3 CNPS Plants that are not very threatened in California
- m meters

Potential habitat for nesting birds was found on and adjacent to the site during the survey. This included trees in the landscaped residential area on the site, power poles north and east of the site, and trees east of the site. No bird nests were found on the site. Small mammal holes were found throughout the site but no large burrows or dens that could be used by burrowing owl (*Athene cunicularia*), American badger, or other special-status species were observed. These holes were likely created by small rodents, such as gophers (*Thomomys* spp.), rats (*Rattus* spp.), or California ground squirrels (*Otospermophilus beecheyi*). No burrows were observed in the disturbed vegetated areas on the southern portion of the PG&E Mesa substation property within the 100-foot buffer. All plant and wildlife species observed during the survey were recorded and are listed in Tables 3 and 4.

Table 3: Plant Species Observed

Scientific Name	Common Name
*Amaranthus albus**	Pigweed amaranth
Ambrosia sp.	Ragweed
Amphilophium sp.*	Amphilophium
Baccharis pilularis	Coyote brush
Bougainvillea sp.*	Bougainvillea
*Brassica nigra**	Black mustard
*Bromus madritensis**	Foxtail chess
*Bromus tectorum**	Cheat grass
*Carpobrotus edulis**	Freeway iceplant
*Chenopodium album**	Lamb's quarters
Croton californicus	California croton
*Cynodon dactylon**	Bermuda grass
*Erigeron bonariensis**	Flax-leaved horseweed
Erigeron canadensis	Horseweed
*Erodium cicutarium**	Redstem filaree
*Eucalyptus sp.**	Eucalyptus
Heterotheca grandiflora	Telegraph weed
*Hirschfeldia incana**	Mediterranean hoary mustard
*Lobularia maritima**	Sweet alyssum
Lupinus arboreus	Yellow bush lupine
Lupinus bicolor	Miniature lupine
*Malva parviflora**	Cheeseweed
*Nerium oleander**	Oleander
*Nicotiana glauca**	Tree tobacco
Opuntia sp.	Prickly-pear
Pinus sp.	Pine tree
*Polygonum aviculare**	Knotweed

Table 3: Plant Species Observed

Scientific Name	Common Name
*Portulaca oleracea**	Purslane
Pseudognaphalium sp.	Cudweed
*Raphanus sativus**	Radish
Salsola sp.*	Russian thistle
Sambucus nigra	Black elderberry
*Schinus molle**	Pepper tree
*Solanum nigrum**	Black nightshade
*Sonchus oleraceus**	Common sow thistle
*Syagrus romanzoffiana**	Queen palm
Washingtonia sp.	Fan palm

Note: *Non-native species.

Table 4: Wildlife Species Observed

Scientific Name	Common Name	Notes
Birds		
Buteo jamaicensis	Red-tailed hawk	Calls were heard at a distance but the species was not visually observed during the survey.
Cathartes aura	Turkey vulture	-
Corvus brachyrhynchos	American crow	-
Euphagus cyanocephalus	Brewer's blackbird	-
Haemorhous mexicanus	House finch	-
Mimus polyglottos	Northern mockingbird	-
Passer domesticus	House sparrow	-
Streptopelia decaocto	Eurasian collared-dove	-
Sturnella neglecta	Western meadowlark	-
Tachycineta sp.	Swallow	-
Zenaida macroura	Mourning dove	-
Mammals		
Sylvilagus sp.	Cottontail rabbit	-
-	Small mammal holes	Small mammal holes were found throughout the site that were likely created by gophers, rats, or California ground squirrels, but no large burrows or dens were found (that could be used by burrowing owl, American badger, or other special-status species).

Table 4: Wildlife Species Observed

Scientific Name	Common Name	Notes
Invertebrates		
Myrmicinae (subfamily)	Red ant	-

4.3 Habitat Connectivity

The Project site does not occur within any mapped habitat corridors or linkages (CDFW 2020b) and no wildlife crossing structures occur on the site. The entire site is disturbed by active strawberry farming, residences, and equipment storage and no native habitats occur. Existing potential barriers to connectivity found on the site include fences, roads, and residential development.

5 Impact Assessment and Mitigation

This section identifies and discusses potential adverse impacts to biological resources that may occur from implementation of the proposed Project and recommends avoidance, minimization, and mitigation measures as necessary. Adverse impacts could occur if implementation of the Project would result in negative effects on special-status species; temporary or permanent modification of special-status species habitats, native or sensitive vegetation, or wetland or riparian habitat; or introduce substantial barriers to wildlife movement.

5.1 Sufficiency of Biological Data

The biological data provided within this report is considered sufficient to determine potential impacts to biological resources as a result of the proposed Project and to recommend avoidance, minimization, and mitigation measures as necessary. No deficiencies in biological data have been identified.

5.2 Impacts

The proposed Project would occur on approximately six acres of existing strawberry fields or disturbed areas, contingent on the final Project design. The Project would also include an approximately 1,000-foot gen-tie line connecting the facility with the adjacent PG&E Mesa substation. The gen-tie line would require three new monopoles: two on existing strawberry fields or on an existing dirt road within the survey area, and one within the Mesa substation property. The proposed pole location within the Mesa substation property could not be surveyed, but based on aerial imagery, it would be installed on a disturbed vegetated area very similar to the one surveyed within the 100-foot buffer on the Mesa substation property. Potential impacts from the Project would include direct ground disturbance, both short-term (e.g., equipment staging) and long-term (e.g., grading, development), and short-term noise from the use of heavy machinery during construction. Because the site currently contains only agricultural, residential, and disturbed areas, and the Project would occur entirely on agricultural or disturbed areas, cumulative impacts are not anticipated.

5.2.1 Special-status Species and Their Habitats

5.2.1.1 Plant Species

Special-status plant species or native habitats that support these species were not found on or adjacent to the site during the survey. Therefore, the proposed Project would not impact these resources and no avoidance, minimization, or mitigation measures are required.

5.2.1.2 Wildlife Species

Special-status wildlife species were not found on or adjacent to the site during the survey. However, potential habitat for raptors and other nesting birds was found, which consisted of trees and power poles. In addition, the infrastructure and buildings within the PG&E Mesa substation and trees on the substation property have the potential to provide nesting habitat for birds. While no trees are planned for removal, the proposed Project has the potential to result in direct impacts to raptors and other nesting birds, including special-status birds, if they are nesting on the Project site or in the immediate vicinity during construction. Therefore, an avoidance and minimization measure is recommended to avoid potential impacts to these species (BIO-1). With implementation of this recommended measure, potential impacts to raptors and other nesting birds would be less than significant.

No burrowing owl or suitable burrows and no American badger or suitable dens were observed during the survey, but these species could enter the site in the future if suitable burrows or dens are present. Therefore, avoidance and minimization measures are recommended to avoid potential impacts to these species (BIO-2 and BIO-3). With implementation of these recommended measures, potential impacts to these species would be less than significant.

California red-legged frog (*Rana draytonii*) and western spadefoot (*Spea hammondii*) were not found during the survey and no water or native habitats were found on or adjacent to the site. However, these species have the potential to occur on upland areas of the site during dispersal from breeding areas. The likelihood of the California red-legged frog reaching the site is low given the number of roads between the Santa Maria River and the site, but it is within their dispersal range. The western spadefoot has the potential to disperse from breeding ponds through upland habitats. Therefore, avoidance and minimization measures are recommended to avoid potential impacts to these species (BIO-4 and BIO-5). With implementation of these recommended measures, potential impacts to these species would be less than significant.

5.2.2 Native or other Important Vegetation

No native or other important vegetation or sensitive plant communities were found on or adjacent to the site during the survey. The site consisted of disturbed areas, a landscaped residential area, and planted strawberry fields. Vegetated areas on the site were sparse, heavily disturbed, and dominated by non-native plants. Therefore, the Project would not substantially reduce the extent, diversity, or quality of native or other important vegetation and no avoidance, minimization, or mitigation measures are required.

5.2.3 Wetland or Riparian Habitat

No wetland or riparian habitats or jurisdictional areas were found on or adjacent to the site during the survey. Therefore, the Project would not impact these resources and no avoidance, minimization, or mitigation measures are required.

5.2.4 Wildlife Movement

The Project site does not occur within any known wildlife movement corridors and no wildlife crossing structures occur on the site. While the Project would construct buildings and infrastructure, fences, and access roads, no substantial barriers to wildlife movement would be introduced because fences, roads, and residential development already occur on the site. Therefore, the Project would not introduce substantial barriers to movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife.

5.3 Mitigation Measures

The following measures are recommended to ensure potential impacts to biological resources are less than significant. The need to add or revise measures should be assessed upon approval of the final design (e.g., if removal of trees becomes necessary).

BIO-1 To avoid impacts to raptors and other nesting birds, construction, ground disturbance, and vegetation removal activities will occur outside of the nesting season (February 1 through September 15). If these activities must occur during the nesting season, a pre-construction nesting bird survey will be performed on the disturbance footprint and within 100 feet of the disturbance footprint by a qualified biologist within no more than 14 days of the activities and between delays of greater than 14 days during the nesting season. If an active nest is found, an appropriate buffer will be determined and established by the qualified biologist based on the bird species occupying the nest and the type of Project activities that are occurring. The nest location will be mapped, and the buffer will be staked and flagged. No construction, ground disturbance, or vegetation removal activities will occur within the buffer during the nesting season or until juvenile birds have fledged from the nest as determined by the qualified biologist. If buffer zones cannot be maintained, a full-time qualified biological monitor must be on-site during these activities within the buffer zones to ensure active nests and nesting birds are not impacted.

BIO-2 A pre-construction survey will be performed for burrowing owls on the disturbance footprint and within 150 meters of the disturbance footprint by a qualified biologist within no more than 14 days of construction, ground disturbance, and/or vegetation removal activities. If suitable burrows are found during the first survey, a second survey will be completed within no

more than 24 hours of these activities. The surveys will be consistent with the methods outlined in the CDFW 2012 Staff Report on Burrowing Owl Mitigation (Staff Report), which include walking transects through the entire survey area and searching the area for sign and individuals. These surveys may be completed concurrently with other special-status species surveys. If occupied burrowing owl burrows are identified, the buffers specified in the Staff Report will be followed depending on the level of disturbance and time of year, unless otherwise authorized by CDFW. If avoidance of active burrows is not possible, owls may be passively displaced from their burrows in coordination with CDFW and according to the recommendations in the Staff Report.

BIO-3 A pre-construction survey will be performed for American badgers on the disturbance footprint and within 100 feet of the disturbance footprint by a qualified biologist within no more than 30 days of construction, ground disturbance, and/or vegetation removal activities. All dens found during the survey will be inspected to determine if they are occupied. If active American badger dens are found, a 50-foot no-activity buffer will be implemented around the den. If avoidance of the active den is not possible, CDFW will be contacted for further guidance.

BIO-4

1. To avoid impacts to California red-legged frog, construction, ground disturbance, and vegetation removal activities will occur outside of the breeding/wet season (late November through April) to the extent feasible. If these activities must occur during the wet season, a pre-construction survey will be performed for California red-legged frog on the disturbance footprint and 100-foot buffer by a USFWS-approved biologist within no more than 48 hours of these activities. If any life stage of the California red-legged frog is found and is likely to be killed or injured by Project activities, the USFWS-approved biologist will be allowed enough time to move them away from the disturbance area before activities begin. Any individuals found will be relocated to the nearest suitable habitat that is outside of the disturbance area. The USFWS-approved biologist will maintain data (e.g., size, coloration, distinguishing features, photos) on any individuals that are moved to determine if they are returning to the site.
2. Prior to construction, ground disturbance, and vegetation removal activities, a USFWS-approved biologist will conduct a California red-legged frog training session for all on-site personnel. The training will include a description of the species and habitat, the measures being implemented to protect the species, and any restrictions on the work area.
3. If activities must occur during the wet season, a USFWS-approved biologist will monitor initial ground disturbance and vegetation removal activities. If the USFWS-approved biologist recommends that work needs be stopped

because this species would be adversely affected, the construction foreman will either resolve the situation immediately by eliminating these effects or require that all actions causing these effects be halted. Monitoring may be reduced after initial disturbance and vegetation removal activities are complete. Monitoring should be performed at least once per week throughout the remaining construction activities during the wet season.

4. Only USFWS-approved biologists will participate in the capture, handling, and monitoring of California red-legged frog. In addition, if activities must occur during the wet season, then construction, ground disturbance, and vegetation removal activities will not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work.

BIO-5 To avoid impacts to western spadefoot, construction, ground disturbance, and vegetation removal activities will occur outside of the rainy season. If these activities cannot be conducted outside of the rainy season, a pre-construction survey will be performed for western spadefoot on the disturbance footprint and within 50 feet of the disturbance footprint by a qualified biologist within no more than 48 hours of the start of the activities. Construction monitoring will also be performed by a qualified biologist during initial ground disturbance and vegetation removal activities if these activities occur during the rainy season. If western spadefoot is discovered, it will be hand captured by the qualified biologist and moved to suitable habitat outside of the disturbance area.

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FIGURES

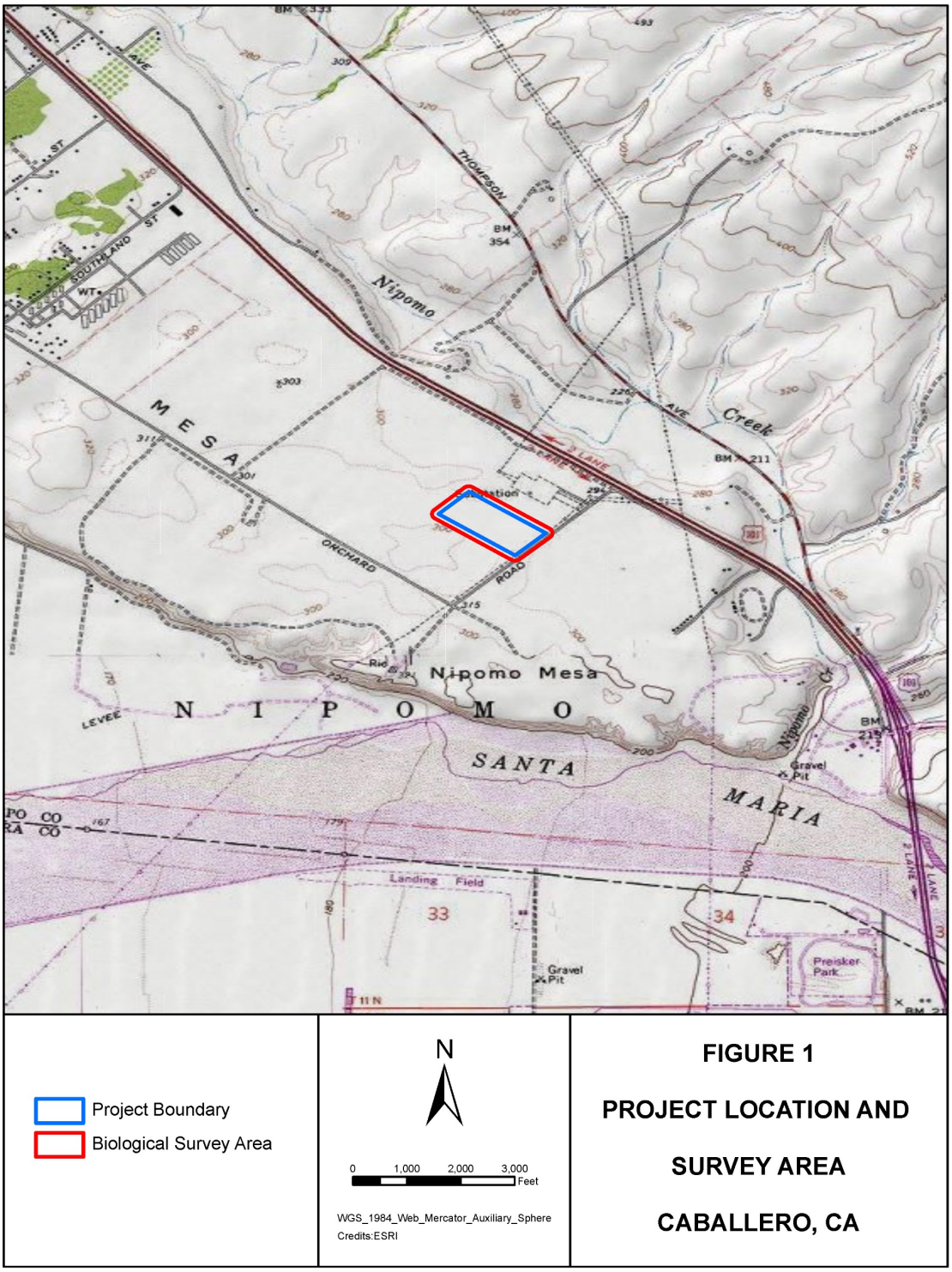

Figure 1: Project Location and Survey Area

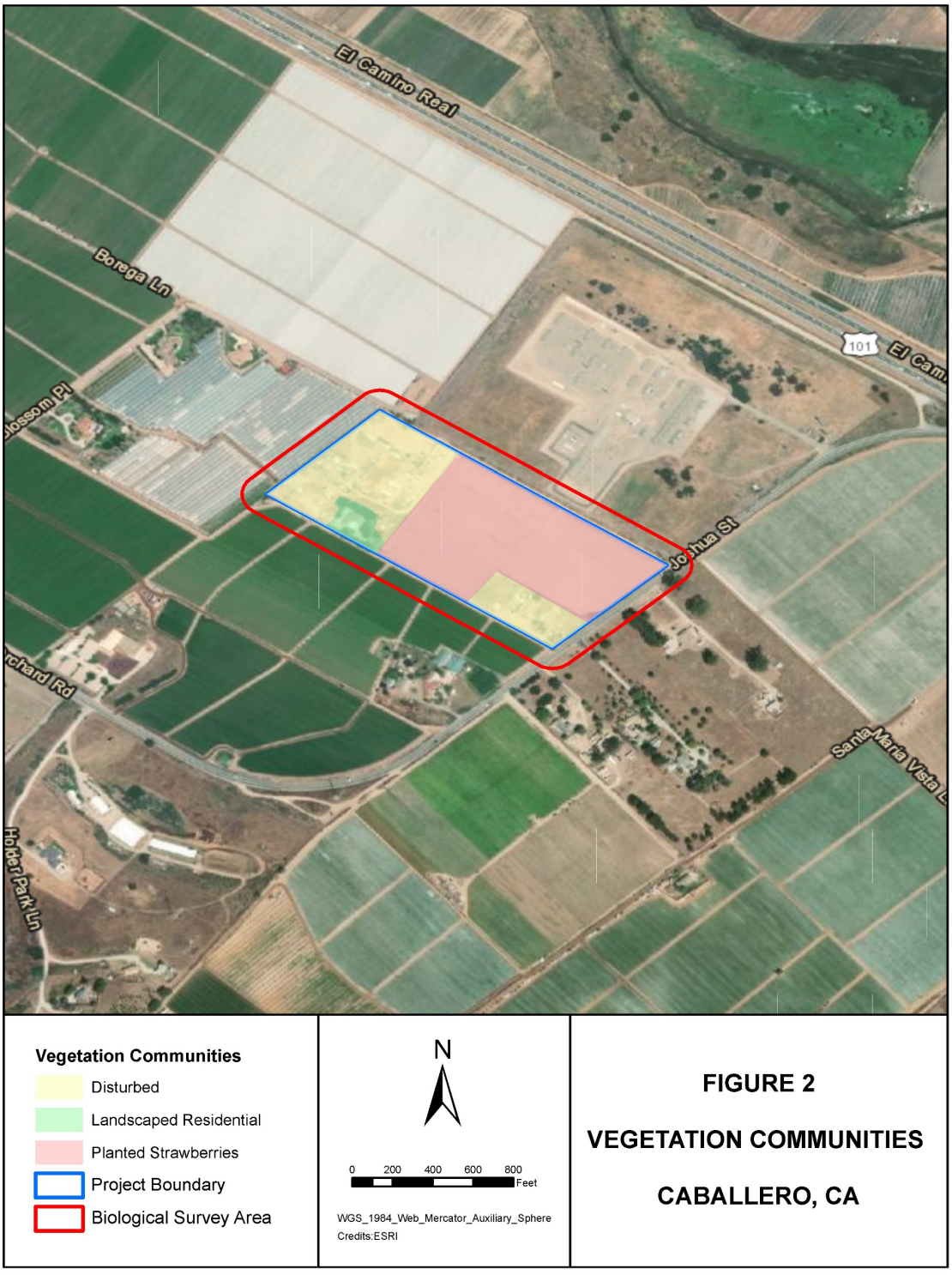

Figure 2: Vegetation Communities

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Appendix A. Site Plan


PARCEL 6
APN: 090-281-017
PARCEL 5
APN: 090-281-018
PARCEL 2
APN: 090-281-023
NEW 230 kV BREAKER AT PG&E MESA SUBSTATION
230 kV TRANSMISSION LINE, ±1,400 LF
TYPICAL EXISTING 12.47 kV DISTRIBUTION LINE
RETENTION BASIN, DESIGNED TO CAPTURE THE DISCHARGE FROM THE 50-YEAR DESIGN STORM EVENT PER SAN LUIS OBISPO STANDARDS. REFER TO CIVIL DRAWINGS.
24'-WIDE ACCESS ROADS WITH 28' INTERNAL RADII, ±3,660' LF
BESS INVERTER, TYPICAL
BESS PAD MOUNT TRANSFORMER, TYPICAL
TYPICAL 230 kV SELF-SUPPORTING MONOPOLE TURNING STRUCTURE, APPROXIMATELY 60' TALL WITH REINFORCED CONCRETE FOUNDATIONS, APPROXIMATELY 4 FEET DIAMETER AND 10-15 FEET DEEP.
230kV PROJECT SUBSTATION ±0.5 ACRES
MAIN POWER TRANSFORMER
6' MIN. SEPARATION BETWEEN CONTAINERS
10' MIN. SEPARATION BETWEEN CONTAINER AND ACCESS ROAD
FIRE SUPPRESSION TANK, NOT TO SCALE, SIZE TO BE DETERMINED UPON FURTHER ENGINEERING. (SEE NOTE 3)
PROJECT INGRESS/EGREES
PROPERTY BOUNDARY, TYPICAL
BESS CONTAINER SHALL NOT EXCEED 53' X 8.5' X 9.5' (L,W,H)
PROJECT SECURITY FENCING, ±2,200 LF ±5.7 ACRES
80' UTILITY EASEMENT
30' PUBLIC ROAD DEDICATION
JOSHUA STREET
343'
743'
51'
270'
300'
57'
236'
184'
PRELIMINARY – NOT FOR CONSTRUCTION
1 BESS PLANT LAYOUT AND SUBSTATION GENERAL ARRANGEMENT
SCALE: 1" = 80'-0"
N
PROJECT LOCATION
US-101
Orchard Rd
Price St
Halcyon Rd
VICINITY MAP
NOTES:
1. DIMENSIONS ARE APPROXIMATE AND MAY VARY BASED ON FINAL DESIGN.
2. SCADA SYSTEM HAS ACTIVE POWER CONTROL CAPABILITY OF BOTH TOTAL PLANT OUTPUT AND INDIVIDUAL INVERTER STATIONS TO PREVENT EXCEEDING MAXIMUM INTERCONNECTION CAPACITY (100 MW AC).
3. IN ACCORDANCE WITH CODES AND STANDARDS, THE BESS INTEGRATED CONTAINERS SHALL INCLUDE A FIRE SUPPRESSION SYSTEM AND SHALL BE ESTABLISHED AS DRY, BUT CAN BE WATER FED VIA FIRST RESPONDER PROVIDED MOBILE PUMPS FROM THE ONSITE WATER TANK. WATER TANK SHALL BE SIZED BASED ON THERMAL CONSIDERATIONS SPECIFIC TO THE BATTERIES BEING PROCURED.
UNIT | RATING | QUANTITY
CONTAINER | 5.861 MWh | 68
INVERTER | 2.9GMW | 34
TRANSFORMER | 3.3MVA | 34
POWER BLOCKS | 2.9GW/MW/11.76MAMh | 34
COMPLETE BESS POWER PLANT | 100.9MW/400MWh (SEE NOTE 2) | 1
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ENGINEER'S STAMP
DRAWING ISSUE
1 10/30/2019 FOR CLIENT REVIEW
2 04/17/2020 FOR CLIENT REVIEW
REVISION
PROJECT NAME
ORIGIS CABALLERO BESS
PROJECT NO.
10164224
CLIENT
ORIGIS
Origis Energy
SITE LOCATION
SAN LUIS OBISPO COUNTY, CA
DOCUMENT TITLE
100 MW BESS CONTAINER GENERAL ARRANGEMENT
DRAWN BY DB
CHECKED BY LP
SHEET
E200
0 ½ 1
IF BAR IS NOT ONE INCH PRINT IS NOT TO SCALE
8/12/2020 3:48 PM
10164224 – ORIGIS CABALLERO-E200 SITE PLAN.DWG

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Appendix B. Photos

Photo 1	
Notes: Representative photo of disturbed area at southeast portion of the site.	

Photo 2	
Notes: Representative photo of disturbed area at northwest portion of the site.	

Photo 3	
Notes: Representative photo of landscaped residential area.	

Photo 4	
Notes: Representative photo of planted strawberries.	

Photo 5	
Notes: Potential habitat for nesting birds in the landscaped residential area on the site.	

Photo 6	
Notes: Potential habitat for nesting birds east of the site.	

Photo 7	
Notes: Potential habitat for nesting birds north of the site.	

Photo 8	
Notes: Potential habitat for nesting birds north of the site.	

Photo 9	
Notes: Representative photo of small mammal holes found throughout the site. Reference notepad is 4.5 x 7 inches.	

Photo 10	
Notes: Damp areas from recent irrigation along western boundary of planted strawberries.	

Photo 11	
Notes: Damp areas from recent irrigation along western boundary of planted strawberries.	

Photo 12	
Notes: Dry roadside ditch along northern site boundary.	

Photo 13	
Notes: Representative photo of adjacent land use north of the site. This photo shows the PG&E Mesa substation.	

Photo 14	
Notes: Representative photo of adjacent land use east of the site.	

Photo 15	
Notes: Representative photo of adjacent land use south of the site.	

Photo 16	
Notes: Representative photo of adjacent land use west of the site.	

Photo 17	
Notes: Pismo clarkia observed at off-site reference population prior to the survey.	

Photo 18	
Notes: Pismo clarkia observed at off-site reference population prior to the survey.	

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