

APPENDIX D

**Biological Resources Analysis and Peer Review of the Biological Resources Report and
Arborist Reports**



ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

Half Moon Bay Office
60 Stone Pine Road, Suite 100
Half Moon Bay, California 94019
Tel: 650.440.4160 Fax: 650.440.4165

TECHNICAL MEMORANDUM

To: Summer Burlison, Project Planner
County of San Mateo Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Date: March 12, 2019

Re: **Biological Resources Analysis and Peer Review of the Biological Resources Report and Arborist Reports for the Canyon Lane Roadway Improvements Development Project, San Mateo County, California.**

Dear Ms. Burlison:

SWCA Environmental Consultants (SWCA) has prepared this memorandum for San Mateo County (County) in support of the Canyon Lane Roadway Improvements Development Project (project) located in San Mateo County, California. At the request of the County, SWCA conducted a third-party review of the Canyon Lane Project Biological Resources Report (H.T. Harvey & Associates 2016) and Arborist Reports (Mayne Tree Expert Company, Inc. 2016 and 2012) to provide comment on these reports in the context of technical adequacy for assessing impacts under the California Environmental Quality Act. SWCA also conducted a biological resources analysis for portions of the project site that were not covered under the Biological Resources Report and Arborist Reports. The purpose of this memorandum is to summarize the findings of the peer review and biological resources analysis conducted by SWCA.

The project includes improvements to the existing Canyon Lane, including the construction of a retaining wall, a turnaround for emergency vehicles, and a single-span bridge that crosses an unnamed ephemeral creek. The project also includes the development of a single-family residence on a merged parcel (Assessor Parcel Numbers [APNs] 057-222-290 & 300), potential future development of 11 additional parcels (APNs 057-221-070, 057-221-090, 057-221-100, 057-221-110, 057-222-210, 057-222-220 & 230, 057-222-240 & 250, 057-222-260, 057-222-270, 057-222-280, and 057-221-060), and the construction of new utilities, including a waterline that would loop in with an existing waterline within the City of Redwood City (City) and an underground electrical distribution line.

ARBORIST REPORTS (MAYNE TREE EXPERT COMPANY, INC.)

Mayne Tree Expert Company, Inc. prepared an Arborist Report for the project in November 2016 (revised March 2017) and an Arborist Report in April 2012 (revised January 2019).

Arborist Report November 2016 (Revised March 2017)

The Arborist Report prepared in November 2016 (revised March 2017) included an assessment of trees that could be impacted by the expansion and paving of Canyon Lane. The following list contains SWCA's comments and recommendations based on a review of the report.

- Trees within the City were not measured in accordance with the City Tree Preservation Ordinance standards. The ordinance requires that measurements are taken at the widest section of the trunk between 6 and 36 inches above ground. According to the report, all tree measurements were taken at 4.5 feet above ground, regardless of whether the trees were located within City limits. This may result in the exclusion of trees could otherwise be considered "protected trees" under the ordinance. Trees within City limits must be measured in accordance with the City Tree Preservation Ordinance No. 1536 § 1, Ch. 35 §§ 35.1-35.9.
- In accordance with the City Tree Preservation Ordinance No. 1536 § 1, Ch. 35 §§ 35.1-35.9, all City-owned street trees and park trees with a diameter at breast height (DBH) of 12 inches or greater are protected. It is recommended that the Arborist Report explicitly indicate which trees fall within City jurisdiction. Additionally, the City Street Tree Ordinance No. 1010 protects all City-owned street trees, regardless of size, that are growing within the public right-of-way. It is recommended that the Arborist Report include language regarding suggested coordination with the City Public Works Department if there are any potential impacts to City-owned street trees, and coordination with the Parks, Recreation and Community Services Department if there are any potential impacts to Park Trees.
- It is recommended that the resolution of attached maps, illustrating tree locations, be higher to illustrate the relationship between trees and their surroundings.
- For Trees 24, 25, and 54, only one diameter measurement is provided for each tree. Given that the split of the codominant stems is below the standard measuring point for diameter, it is recommended that the diameter section have two measurements provided for each tree.
- For Trees 44 and 51, a single diameter value was provided for multiple trees. It is recommended that the diameter measurement of each tree be provided.
- The Arborist Report states that Tree 52 is dead and will be partially impacted by the trench for the new waterline. Therefore, it is recommended that this tree be proposed for removal.

Arborist Report April 2012 (Revised January 2019)

The Arborist Report prepared in April 2012 (revised January 2019) included an assessment of trees that could be impacted by the construction and development of a single-family residence on merged parcel APN 057-222-290 & 300. The following list contains SWCA's comments and recommendations based on a review of the report.

- Tree 11 is recommended for retention in the summary on page 1 of the report, with the stipulation that the retaining wall height should be shortened. However, throughout the remainder of the report, this tree is labeled with a blue "X" on the map and is slated for removal. It is recommended that additional clarification be included regarding project design and coordination with a certified arborist on the exact recommendations for Tree 11.
- The April 3, 2012 report states that four trees are of significant size to warrant heritage tree status. However, none of the trees listed in the table on page 3 have a DBH measurement that warrants heritage tree status under the San Mateo County Heritage Tree Ordinance. No trees in the January

2019 report update are reported as having heritage tree status. Based on the data in the 2012 report and January 2019 report update, it is understood that the heritage tree language within the report update is correct.

Additional arborist inspections and reporting will be required as part of the potential future development of the 11 additional parcels in order to assess the potential impacts to trees within these parcels. Trees within these parcels will need to be assessed for heritage tree status, and protection under the San Mateo County Heritage Tree Ordinance and the City of Redwood City Tree Preservation Ordinance. It is recommended that additional arborist reports be prepared prior to construction within the 11 future developable parcels.

CANYON LANE PROJECT BIOLOGICAL RESOURCES REPORT (H.T. HARVEY AND ASSOCIATES 2016)

SWCA reviewed the Canyon Lane Project Biological Resources Report, prepared by H.T. Harvey and Associates (H.T. Harvey) in December 2016, (2016 report) for the expansion of Canyon Lane and the installation of utilities. SWCA also edited the project description to include the development of a single-family residence on a merged parcel (057-222-290 & 300) and the potential future development of 11 parcels. The 2016 report did not analyze biological resources for the afore mentioned, expanded project description. Therefore, SWCA conducted a follow-up biological resources analysis to include areas within the expanded project description and evaluate biological resources within those areas that have potential to be impacted by the project.

Biological Resources Analysis (SWCA 2019)

SWCA Biologist Jessie Henderson-McBean conducted a desktop review and field investigation to evaluate biological resources that have potential to be impacted by the development of the single-family residence and potential future development of the 11 parcels. This section generally follows the format of the 2016 report and provides supplemental data to adequately address potential impacts associated with the expanded project description.

Methods

LITERATURE REVIEW

SWCA biologists reviewed the 2016 report to determine a baseline for surveys and literature review, and to provide comment on the report in the context of technical adequacy for assessing impacts under the California Environmental Quality Act.

Consistent with the 2016 report, SWCA reviewed all pertinent literature and databases to ensure that all data was current. SWCA's literature review was initiated with a query of the most recent version of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) to identify reported occurrences of sensitive resources within the following USGS 7.5-minute quadrangle maps: Woodside, Palo Alto, Mindego Hill, La Honda, San Gregorio, Half Moon Bay, Montara Mountain, San Mateo, and Redwood Point. An Information for Planning and Consultation (IPaC) Resource List was obtained from the United States Fish and Wildlife Service (USFWS) to determine what federally listed and protected resources may occur in the area.

In addition to the CNDDDB and IPaC queries, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (CNPS 2018) was reviewed to provide additional information on rare plants known to occur in the area. As CNPS does not maintain quadrangle-level

records for California Rare Plant Rank (CRPR) 4 species, the CNPS plant list for San Mateo County was also reviewed to determine if new rare plant occurrences had been recorded since the 2016 report was prepared.

FIELD STUDY

A reconnaissance-level field survey was conducted by SWCA Biologist Jessica Henderson-McBean on January 22, 2019, and a follow-up survey was conducted on February 6, 2019. The biological survey area included areas identified as the proposed Canyon Lane road expansion area, the proposed utility installation area, the single-family residence development, and 11 future development parcels. The biological survey area was surveyed by walking meandering transects throughout the survey area to document habitat conditions and to determine the potential for the presence of sensitive species. Potentially jurisdictional waters and wetlands were preliminarily mapped as part of the field study; however, no formal wetland delineation was conducted. In addition, no focused field surveys were performed as part of the reconnaissance-level surveys.

Regulatory Setting

As stated in the 2016 report, biological resources are regulated by a number of federal, state, and local laws and ordinances. SWCA did not have comment on the relevant laws and ordinances listed in the 2016 report. Therefore, the regulatory setting described in the 2016 report is consistent with that used for the 2019 biological resource evaluation.

Existing Biological Conditions

Consistent with the 2016 report, the project site is located within a forested canyon and is surrounded by residential development (Figure 1). The size of the project site has been expanded from 1.33 acres to 3.801 acres, as the project now encompasses a single-family residence and 11 potentially developable parcels situated north and south of the existing dirt road.

Site elevation ranges from approximately 130 feet at Glenwood Avenue to approximately 300 feet at Vista Lane. Although the project site has been expanded, soils within the expanded project site remain consistent with those described in the 2016 report. Soils in the project site are Urban land-orthents, cut and fill complex, 5 to 75 percent slopes, and Orthents, cut and fill-urban land complex, 5 to 75 percent slopes (NRCS 2019).

General Habitat Conditions and Wildlife Use

The 2019 reconnaissance-level field survey identified five general biotic habitats/features on the project site: coast live oak forest, developed, California annual grassland, riparian coast live oak forest, and disturbed. The 2016 report identified coast live oak forest, developed, California annual grassland, and riparian coast live oak forest habitat within the project site. Disturbed was added to this analysis to acknowledge a highly disturbed area on the southwestern side of the watermain installation area and is further described below. The 2016 report identified “drainage swales,” which have been renamed for the purposes of this report to reflect the hydrology of the features (intermittent drainage feature and ephemeral drainage feature). In addition, SWCA biologists identified one additional drainage feature as part of the expanded project description and identified disturbed habitat areas in the southwestern corner of the project site. These additional biotic features have been added to this analysis and are described in more detail below. The distribution of habitat acreages within the project site is depicted in Figure 2, and a summary of all habitat acreages on the site is presented in Table 1.



Figure 1. Vicinity Map



Figure 2a. Habitat and Project Impacts Map 1 of 2

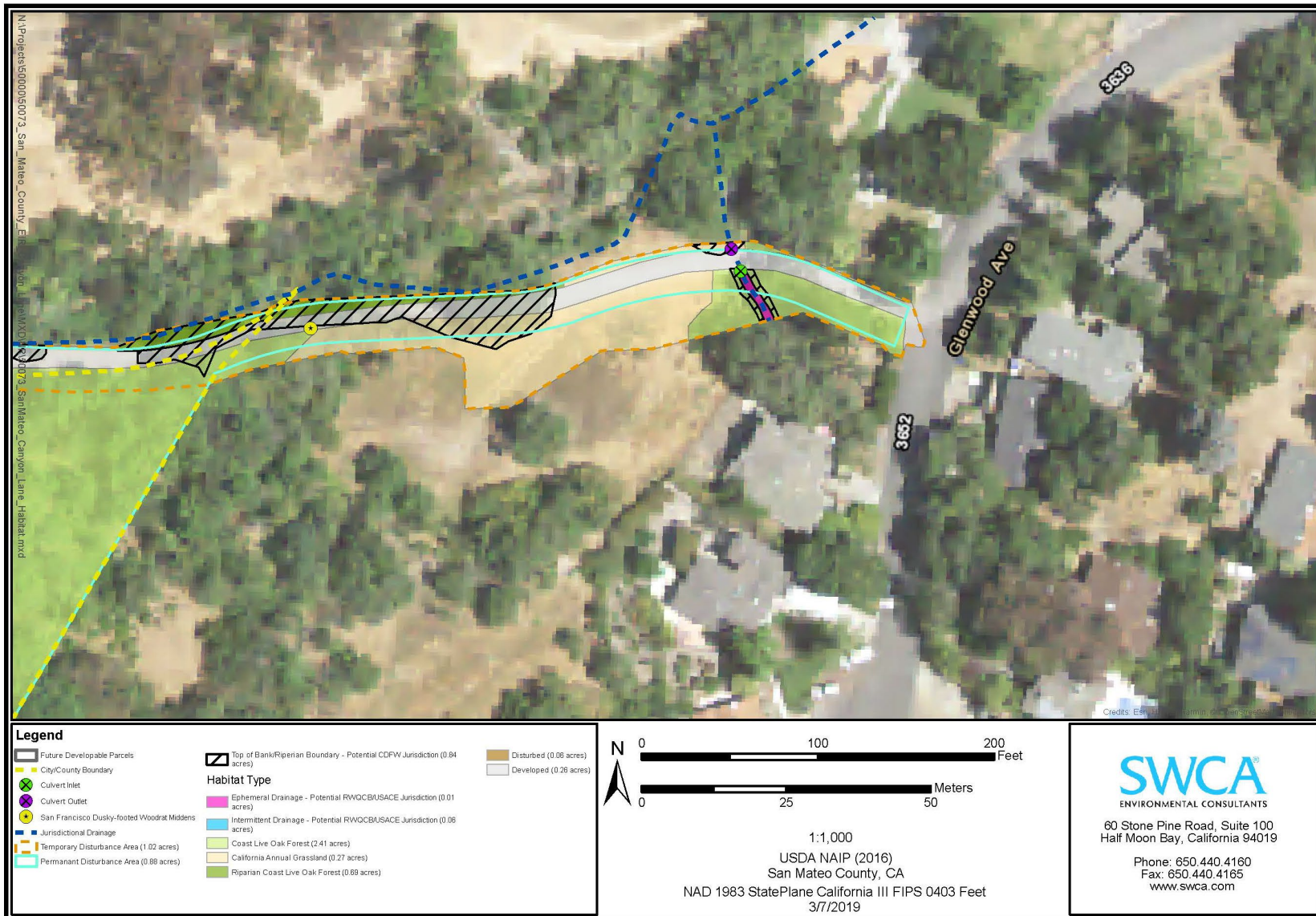


Figure 2b. Habitat and Project Impacts Map 2 of 2

Table 1. Habitat Acreages on the Project Site

Habitat	Area (acres)	Percentage of Site (%)
Coast live oak forest	2.417	63
Developed	0.260	7
California annual grassland	0.278	7
Riparian coast live oak forest	0.697	18
Disturbed	0.066	2
Intermittent drainage	0.067	2
Ephemeral drainage	0.016	1
TOTAL	3.801	100

Vegetation and Wildlife

In addition to the biotic habitat/features identified in the 2016 report, the following vegetation descriptions have been added to the report as a result of the expanded project description, and associated footprint, and changes to the biotic conditions on site.

Discussion and description of the “drainage swale” mentioned in the 2016 report under this heading is discussed in the Sensitive and Regulated Habitats section below as Ephemeral Drainage and Intermittent Drainage.

DISTURBED

Disturbed habitat is typically used to describe areas that have been previously physically disturbed to such an extent that previously existing natural communities are no longer supported. Disturbed areas either do not support any plant species or contain sparse, predominantly nonnative weedy species. This is not a natural community and generally does not provide high-quality habitat for wildlife or sensitive species.

This habitat type has been added to the biological analysis to acknowledge a highly disturbed area on the southwestern side of the watermain installation area. An ongoing landslide is present in this area, which appears to have been re-stabilized by contouring the slope, installing straw wattles to stabilize loose soils, and covering the area with woodchips (Steven F. Connelly 2017). Sparsely scattered annual grasses were observed growing up through the dense layer of woodchips. No other vegetation was observed growing in this area.

In general, disturbed habitat does not provide high-quality wildlife habitat, although reptiles may bask in open areas where sunlight hits the ground. In addition, wildlife may use this area as they pass through the vicinity to access adjacent habitats.

Special-Status Plants and Animal Species

Figures 3a, 3b, 4a and 4b in Appendix A show CNDDDB special-status plant and animal species occurrence records within a 5-mile radius of the project. CNDDDB maps have been updated to include any new occurrences recorded since the 2016 report was prepared.

SPECIAL-STATUS PLANTS

Eighty-six (86) special-status plants were considered for their potential to occur on the project site based on current CNPS (2019) and CNDDDB (2019) records. Based on a review of suitable habitat, soils, elevation, and other environmental factors, SWCA determined that the project site contains suitable habitat for eight of the 86 species that were identified in the records search.

SWCA's determination regarding what plant species are considered absent from the project site was consistent those made in the 2016 report. The following plant species are considered absent from the project site: Franciscan onion (*Allium peninsulare* var. *franciscanum*), Western leatherwood (*Dirca occidentalis*), fragrant fritillary (*Fritillaria liliacea*), Crystal springs lessingia (*Lessingia arachnoidea*), and white-rayed pentachaeta (*Pentachaeta bellidiflora*).

SWCA's determination regarding what special-status plants have potential to occur at the project site was consistent with the 2016 report. The list of species that have potential to occur and information about where these species may occur within the project site is presented in Table 2.

SPECIAL-STATUS ANIMALS

Fifty-eight (58) special-status animal species were considered for their potential to occur on the project site based on current CNDDDB (2019) records and USFWS species records. SWCA determined that the project site may contain suitable habitat for 18 of the 58 species that were identified in the records search. Of these 18 species, SWCA agreed with the 2016 report determination that the following species were absent from the project site due to a lack of suitable habitat or evidence that the species does not occur in the project vicinity: delta smelt (*Hypomesus transpacificus*), tidewater goby (*Eucyclogobius newberryi*), Central California coast steelhead (*Oncorhynchus mykiss irideus*), burrowing owl (*Athene cunicularia*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), peregrine falcon (*Falco peregrinus anatum*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), and ringtail (*Bassariscus astutus*).

SWCA agreed with the 2016 report determination that the following species are not expected to occur on the project site: California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), California tiger salamander (*Ambystoma californiense*), and American badger (*Taxidea taxus*).

SWCA agreed with the 2016 report determination that the project site lacks suitable structures and crevices for large roosting maternity colonies of Townsend's big-eared bat (*Corynorhinus townsendii*). However, SWCA determined that there is potential for pallid bat (*Antrozous pallidus*) and other crevice roosting bats to occur on the project site. Rocky outcrops located to the north of the ephemeral drainage within the proposed 11 development parcels may provide suitable roosting habitat for individual pallid bats and other common crevice roosting bat species. In addition, trees located within the project site may provide suitable roosting habitat for foliage roosting bat species commonly found in the region such as the non-listed hoary bat (*Lasiurus cinereus*) and Western red bat (*Lasiurus blossevillei*), a California species of special concern.

Five special-status animal species were determined to have potential to occur on the project site. These species are described in Table 3.

Table 2. Special-Status Plant Species with Potential to Occur on the Project Site

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS	Rationale for Expecting Presence or Absence
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	Annual herb that occurs in coastal bluff scrub, cismontane woodland, and valley and foothill grassland. Elevation 3–500 meters.	May-June	--/--/1B.2	Limited potential to occur. Potentially suitable habitat for this species is located within coast live oak forest, and California annual grassland habitat on the project site.
Oakland star tulip <i>Calochortus umbellatus</i>	Perennial bulbiferous herb that occurs in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. This species is often found on serpentinite soils. Elevation 100–700 meters.	March-May	--/--/4.2	Limited potential to occur. Potentially suitable habitat for this species is located within both the grassland and coast live oak forest habitats on the project site.
California bottle-brush grass <i>Elymus californicus</i>	Perennial herb that occurs in broadleafed upland forest, cismontane woodland, North Coast coniferous forest, and riparian woodland habitats. Elevation 15–470 meters.	May-August (November)	--/--/4.3	Limited potential to occur. Potentially suitable habitat for this species is located within both the riparian coast live oak forest and coast live oak forest habitats on the project site.
San Mateo woolly sunflower <i>Eriophyllum latilobum</i>	Perennial herb that occurs in cismontane woodland (often serpentinite, on roadcuts), coastal scrub, and lower montane coniferous forest. Elevation 45–330 meters.	May-June	FE/CE/1B.1	Potential to occur. Potentially suitable habitat for this species is located within the coast live oak forest habitat on the project site.
bristly leptosiphon <i>Leptosiphon acicularis</i>	Annual herb that occurs in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland habitats. Elevation 55–1500 meters.	April-June	--/--/4.2	Limited potential to occur. Potentially suitable habitat for this species is located within the coast live oak forest and California annual grassland habitats on the project site.
serpentine leptosiphon <i>Leptosiphon ambiguus</i>	Annual herb that usually occurs on serpentinite soils, in cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Elevation: 120–1130 meters.	March-June	--/--/4.2	Potential to occur. Potentially suitable habitat for this species is located within the coast live oak forest habitat on the project site; however, this species is presumed absent from the California annual grassland habitat due to the fact that the grassland habitat is not on serpentine soils.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
woodland woollythreads <i>Monolopia gracilens</i>	An annual herb associated with serpentine soil. Often found in openings within broadleaved upland forest, chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland. 100–1200 meters.	February - July	--/--/1B.2	Limited potential to occur. Potentially suitable habitat for this species is located within the coast live oak forest and California annual grassland habitat on the project site.
Michaels rein orchid <i>Piperia michaelii</i>	Perennial herb that occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest habitats. Elevation 3–915 meters.	April-August	--/--/4.2	Limited potential to occur. Potentially suitable habitat for this species is located within the coast live oak forest habitat on the project site.

Notes:

¹List of plant species based on CNPS and CNDDB searches of USGS 7.5-minute quadrangles— Woodside, Palo Alto, Mindego Hill, La Honda, San Gregorio, Half Moon Bay, Montara Mountain, San Mateo and Redwood Point ²Listing status based on CNDDB and CNPS data.

³Habitat associations and blooming periods based on the Jepson Online Interchange for California Floristics (Queried in February 2019).

*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)

Table 3. Special-Status Animal Species with Potential to Occur on the Project Site

Species Name	Habitat and Distribution	Legal Status Federal/ State	Rationale for Expecting Presence or Absence
Western pond turtle <i>Emys marmorata</i>	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation. Prefers aquatic features with exposed banks, rocks, or logs for basking. Typically found in woodland, forest and grassland habitats. Typically between March and June turtles will leave the water and travel overland to search for food, better habitat, a mate, or nesting habitat.	--/SSC	Limited potential to occur. SWCA agreed with the assessment made by H.T. Harvey's 2016 report that western pond turtle may occur, although infrequently, within the project site. Although the project site lacks suitable high-quality aquatic habitat and basking sites for this species, the intermittent drainage feature may provide suitable temporary aquatic cover for vagrant individuals.
yellow warbler <i>Setophaga petechia</i>	Occurs in bushes, swamp edges, streams, and gardens. Yellow warblers nest in a variety of habitats including woods and thickets along the edges of streams, lakes, swamps, and marshes, particularly in willows, alders, and other moisture-loving plants.	--/SSC	Potential to Occur. Unlikely to nest. SWCA agreed with the assessment made by H.T. Harvey's 2016 report that this species is unlikely to nest within the project site, but may occur on the project site as a spring or fall migrant.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	Occurs in grasslands, scrub, and wooded areas throughout the San Francisco Bay area. This species builds large stick houses in trees or tree cavities as well as on the ground against logs or in dense brush.	--/SSC	Present. SWCA agreed with the assessment made by H.T. Harvey's 2016 report that suitable habitat for San Francisco dusky-footed woodrat occurs throughout the project site within coast live oak forest and riparian coast live oak forest habitat. SWCA identified four woodrat middens during the reconnaissance-level surveys (Figure 2).
pallid bat <i>Antrozous pallidus</i>	Occurs in semi-arid and arid landscapes in western North America, primarily in grasslands, shrub-steppe, and desert environments with rocky outcrops. This species can also be found in dry open oak forest, ponderosa forest, or open farmland. Roosts are most commonly in rock crevices; however, buildings, bridges, live trees and snags may also be suitable roosts for pallid bat.	--/SSC	Potential to occur. Although no suitable large crevices are present within the project site for large maternity colonies, rocky outcrops within the future developable parcels located on the north side of the intermittent drainage feature may provide suitable roosting habitat for individual roosting and small groups of maternity roosting pallid bats.

Species Name	Habitat and Distribution	Legal Status Federal/ State	Rationale for Expecting Presence or Absence
Western red bat <i>Lasiurus blossevillei</i>	Occurs in forests and woodlands from sea level up through mixed conifer forests, with grasslands, shrublands, open woodlands, forests and croplands nearby for foraging. This species roosts primarily in trees, and sometimes in shrubs. Roost sites are typically located adjacent to streams, fields or urban areas.	--/SSC	Potential to occur. Trees and shrubs throughout the project site may provide suitable roosting habitat for individual roosting and small groups of maternity roosting Western red bats.

Notes:

¹List of animal species based on CNDDDB searches of USGS 7.5-minute quadrangles – Woodside, Palo Alto, Mindego Hill, La Honda, San Gregorio, Half Moon Bay, Montara Mountain, San Mateo and Redwood Point

²Listing status based on CDFW CNDDDB State & Federally Listed Endangered & Threatened Animals of California List, November 2018.

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

Sensitive and Regulated Habitats

CDFW SENSITIVE HABITATS

Consistent with the 2016 report, SWCA identified riparian habitat along the ephemeral drainage and intermittent drainage corridors. This riparian habitat may be considered jurisdictional by CDFW. In addition to the riparian habitat identified along the intermittent drainage tributary to Arroyo Ojo de Agua and the eastern ephemeral drainage feature, riparian habitat, part of the expanded project description, was identified surrounding the western ephemeral drainage feature and south of Canyon Lane.

WATERS OF THE U.S./STATE

Consistent with the 2016 report, no formal wetland delineation was conducted for this report. However, potentially jurisdictional features do occur on the site. These features are described in detail below.

Intermittent Drainage

Intermittent streams and drainages are defined as having periods of flowing water during the wet season (winter-spring). These features are normally dry during the hot summer months and are not considered “relatively permanent waters.” (Wetlands Professional Services 2017)

The 2016 report describes the presence of a “drainage swale” running parallel to Canyon Lane, which is an unnamed tributary of Arroyo Ojo de Agua. For the purpose of this analysis SWCA has renamed the “drainage swale” to “intermittent drainage” in order to more accurately reflect the seasonal waters present during the wet season.

During both site visits on January 22, 2019, and February 6, 2019, water was actively flowing in the intermittent drainage feature. Water was observed at approximately 8 to 12 inches in depth. The intermittent drainage feature is canopied by riparian coast live oak forest habitat, and the banks are covered with patches of dense Himalayan blackberry (*Rubus armeniacus*) as well as patches of annual grasses and forbs.

Consistent with findings in the 2016 report, the intermittent drainage does not provide suitable habitat for fish and most aquatic wildlife species due to the fact that the drainage is narrow and relatively shallow. In addition, the intermittent drainage, which is a tributary to Arroyo Ojo de Agua, runs underground from a large culvert inlet to the northeast of the project site, and through a series of pipes towards Redwood Creek. Due to the fact that this feature runs subsurface, it does not provide suitable aquatic dispersal habitat for fish or aquatic wildlife species. However, the intermittent drainage may provide a water source for wildlife species in adjacent habitats, which may use the drainages on the project site for drinking or bathing. In addition, the intermittent drainage feature may provide temporary aquatic refuge for the rare vagrant western pond turtle that may disperse through the area.

Ephemeral Drainage

Ephemeral drainage features are typically associated with having less flow than intermittent streams and water is only flowing for brief periods in response to rainfall. Ephemeral streams and ditches are normally dry for most of the year. (Wetlands Professional Services 2017)

The 2016 report describes a “second drainage swale” that connects to the above-described unnamed tributary of Arroyo Ojo de Agua, near the eastern boundary of the site. This drainage swale lacks a riparian canopy, but does contain some Himalayan blackberry along the banks of the feature. During both site visits on January 22, 2019, and February 6, 2019, water was actively flowing in this ephemeral

drainage feature. Water was observed at approximately 4 to 6 inches in depth due to the recent rain events.

As part of the expanded project description, SWCA identified another ephemeral drainage feature on the southwestern side of the project site which conveys stormwater runoff through a series of culverts, starting on the southwestern side of the project site near Vista Lane, and draining downslope towards the intermittent drainage on the north side of Canyon Lane. Water was flowing in this feature during both site visits (January 22, 2019 and February 6, 2019). Water was observed at approximately 6 inches in depth due to recent rain events. This second, western ephemeral drainage feature was not identified in the 2016 report, as the feature overlaps with the 11 future developable parcels and the proposed water main installation site.

Neither of the ephemeral drainages observed within the project site provide suitable habitat for fish and most aquatic wildlife species due to the fact that the drainages are narrow and relatively shallow, and the water in the drainages is the result of storm events. However, both of the ephemeral drainages may provide a seasonally present water source for wildlife species in adjacent habitats, which may use the drainages on site for drinking or bathing.

Biotic Impacts and Mitigation

OVERVIEW

The CEQA Guidelines outlined within the 2016 report are current and valid for impacts analysis within this report. SWCA's determinations remain consistent with the definitions and guidelines outlined in the 2016 report.

In summary, SWCA's assessment of the potential impacts for the project expansion of Canyon Lane remained consistent with those assessed in the 2016 report. However, due to the expanded project description, the areas of impact are no longer consistent with the areas reviewed in the 2016 report. Temporary and permanent impact areas are further described in Table 4 below. SWCA determined that mitigation measures and procedures described in the 2016 report provide mitigation for the impacts of the project on sensitive habitats and special-status species, with the exception of impacts to San Francisco dusky-footed woodrat and bat species. SWCA recommends the addition of language added to Mitigation Measure 7c (described below) to further prevent impacts to San Francisco dusky-footed woodrat young, and implementation of Mitigation Measure 10: Pre-Construction Bat Survey, described below to mitigate impacts to special-status bat species and maternal bat roosts.

Table 4. Temporary and Permanent Impacts as a Result of the Project

Habitat	Temporary Impact Area (acres)	Permanent Impact Area (acres)
Coast live oak forest	0.372	0.506
Developed	0.257	0.211
California annual grassland	0.173	0.056
Riparian coast live oak forest	0.144	0.103
Disturbed	0.066	N/A
Intermittent drainage	0.005	0.005
Ephemeral drainage	0.003	0.001
TOTAL	1.020	0.882

KEY ASSUMPTIONS

To date, the design for the proposed bridge over the tributary of Arroyo Ojo de Agua has not yet been finalized. However, the proposed design shows that the bridge would fully span the intermittent drainage without encroaching below the top of bank, and this design is a key assumption in this analysis, as well as in the 2016 report. Therefore, no additional permits or compensatory mitigation are anticipated beyond those outlined in the original Biological Resources Report. If there are changes to the bridge design which may impact the potentially jurisdictional boundaries of these features, additional permitting may be required.

The 11 developable parcels that are part of this proposed project were analyzed at a program level. The purpose of the assessment of these parcels, within this biological resources report, is to provide a baseline for future development on these parcels. As conditions may change, and no certain date of potential development is yet known, it is recommended that any future development of these parcels proceed only after a biological evaluation, specific to the parcel(s) in question, be completed. Considering potential future regulatory changes and changes to special-status species designations, an individual report, congruent with the CEQA process, will need be completed to assess potential impacts.

LESS-THAN-SIGNIFICANT IMPACTS

The levels of significance reported for impacts in the 2016 report are consistent with that of the expanded project description scope. However, the total acreages that will be impacted by the proposed project have been altered due to the expanded project description. The proposed project will result in 0.88 acre of permanent impacts and 1.02 acre of temporary impacts. These acreages do not include potential impacts from the 11 developable parcels which accounts of 2.62 acres of the project area, as described above.

IMPACTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION

No additional impacts, beyond those reported in the 2016 report, to bent-flowered fiddleneck or San Mateo woolly sunflower were identified as part of the 2019 biological evaluation. The following Mitigation measures suggested in the 2016 report would be sufficient to mitigate the effects of the project on these species for the expanded project description: Mitigation Measures 1a, 1b, 1c, 2a, and 2b.

Loss of Protected Trees

Trees within the City were not measured in accordance with the City's tree ordinance standards. The City requires measurements be taken at the widest section of the trunk between 6 and 36 inches above ground.

Trees within the City will need to be measured in accordance with the standards outlined in the City tree ordinance. Trees within the County of San Mateo will need to be measured in accordance with the San Mateo County Significant Tree Ordinance.

Mitigation Measures 3a, 3b, 3c, 4a, 4b, and 4c proposed in the 2016 report for loss of protected trees are suggested to be applied to the expanded project description scope; however, additional trees may be added to the identified list of trees following updates to the Arborist Reports.

Impacts on Intermittent and Ephemeral Drainage Features and Water Quality

SWCA's determination on project impacts to potentially jurisdictional waters is consistent with that of the 2016 report. However, the expanded project description area includes one additional ephemeral drainage feature, observed on the western side of the project. The feature intersects with one of the 11 future developable parcels; however, Mitigation Measures 5a and 5b described in the 2016 report are relevant in

order to mitigate for potential impacts to all drainage features. Permitting will be required for the widening of the culvert crossing within the ephemeral drainage on the east side of Canyon Lane. Additional permitting may be required for the installation of the proposed bridge crossing, if the design encroaches on the jurisdictional boundaries of the intermittent drainage feature.

Impacts from Invasive Weeds

SWCA's determination on project impacts to invasive weeds is consistent with those described in the 2016 report. No additional mitigation measures beyond those stated in Mitigation Measure 6 are recommended.

Impacts on the San Francisco Dusky-Footed Woodrat

Five San Francisco dusky-footed woodrat nests were identified during the field surveys on January 22, 2019, and February 6, 2019. SWCA's determination on project impacts to dusky-footed woodrats is consistent with those described in the 2016 report. No changes to Mitigation Measures 7a and 7b are recommended, however the following language (indicated by the italicized text) has been added to Mitigation Measure 7c to further prevent any potential impacts to woodrat young.

BIO/mm-7c Pre-Construction Bat Survey. Relocation of Nest Materials. If active woodrat nests are found within the project boundary during the preconstruction survey and avoidance is not feasible, the woodrats will be evicted from their nests prior to the removal of the nests and onset of ground-disturbing activities to avoid injury or mortality of the woodrats. A qualified biologist will disturb and *slowly dismantle* the woodrat nest to the degree that all woodrats leave the nest and seek refuge outside of the project activity area. *If dependent woodrat young are observed within the nest during dismantling, the biologist will stop dismantling, and install a buffer to allow additional time for the adults and young to disperse offsite. Once adults and young have dispersed offsite, the biologist will then complete dismantling of the nest.* Subsequently, the nest sticks will be relocated; these materials will be piled at the base of a nearby tree or shrub outside of the activity area. The spacing between relocated nests will not be less than 20 feet, unless a qualified biologist has determined that the habitat can support higher densities of nests.

Impacts on Western Pond Turtle

SWCA's determination on project impacts to western pond turtle is consistent with those described in the 2016 report. No additional mitigation measures beyond those stated in Mitigation Measure 8 are recommended.

Regulatory Overview for Nesting Birds

SWCA's determination on project impacts to nesting birds is consistent with those described in the 2016 report. No additional mitigation measures beyond those stated in Measure 1a, 1b and 1c are recommended.

Impacts on Roosting Bats

The project could result in the loss of bat roosting habitat, including potential roosting habitat for pallid bat, through the removal of onsite trees and impacts to rocky outcrops during construction. Loss of individual bats, bat colonies, or their habitat could occur if active bat roosts are present within trees or rocky outcrops, particularly if construction activities take place during the maternal roosting period season when young bats cannot yet fly or, for crevice-roosting bats, during hibernation when bat activity is decreased. Implementation of Mitigation Measure 10: Pre-Construction Bat Survey, would reduce this

potentially significant impact on special-status and roosting bat species to a less-than-significant level by ensuring tree removal activities are seasonally timed where active bat roosts occur, and mitigation is provided for the loss of identified bat roosts.

BIO/mm-10 Pre-Construction Bat Survey. Prior to tree removal or grading of rocky outcrops, a qualified bat biologist shall conduct a visual and acoustic survey of the project site to identify if bats are roosting within trees or rocky outcrops within the project site. Sensitive habitat areas and roost sites should be avoided to the maximum extent possible. If no roosting sites or bats are observed during the survey, a letter report detailing the survey observations shall be sent to the California Department of Fish and Wildlife (CDFW) and no further mitigation is necessary.

If roosting bats or indications of bat roosts are observed within the project site and cannot be avoided, CDFW will be consulted to determine if bat roost replacement is required. If required, roost replacement will be implemented before construction activities begin. Roost replacement will be implemented using suggested mitigation strategies such as those described in the Caltrans' *California Bat Mitigation Techniques, Solutions, and Effectiveness* report (Johnston et al. 2004) and will be based off species-specific roosting requirements. Roost replacement will be conducted on site to the extent feasible.

If roosting bats or indications of bat roosts are observed within Project trees to be removed, tree removal shall be conducted between September 1 and March 30 to avoid impacts to maternal bat roosts. During tree removal and where potential bat roosts were identified, a qualified bat biologist shall be present and tree removal will begin with portions of the tree that do not provide suitable roost habitat (e.g., low limbs lacking forage). Trees will be disassembled at a speed in coordination with the on-site qualified bat biologist that allows any roosting bats to vacate the tree.

Implementation of the pre-construction survey and bat roosting minimization measures presented in mm/BIO-10 would avoid and minimize impacts to roosting bat species and the impacts will be reduced to a less-than-significant level.

LITERATURE CITED

- 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. 2nd Edition. University of California Press, Berkeley.
- California Department of Fish and Wildlife (CDFW). 2018. Special animals list.
- . 2019. California natural diversity database (CNDDDB). California Department of Fish and Game, Sacramento, CA.
- California Native Plant Society (CNPS). 2019. Inventory of rare and endangered plants (online edition). California Native Plant Society. Sacramento, CA.
- H.T. Harvey and Associates. 2016. Canyon Lane Project Biological Resources Report. Prepared for Casey Construction, Inc. December 13, 2016.
- Johnston D., G. Tatarian, E. Pierson. 2004. California Bat Mitigation Techniques, Solutions, and Effectiveness. Prepared for California Department of Transportation and California State University Sacramento Foundation December 29, 2004.

- Mayne Tree Expert Company. 2012. Arborist report. Prepared for Jack McCarthy Designer, Inc. April 11, 2012.
- Mayne Tree Expert Company. 2016. Arborist report. Prepared for Casey Construction November 1, 2016.
- Mayne Tree Expert Company. 2019. Arborist report. Prepared for Casey Construction, Inc. January 7, 2019.
- Nafis, G. 2016. A Guide to the Amphibians and Reptiles of California (2000–2016). Available at: <http://www.californiaherps.com>. Accessed January 22, 2019.
- National Audubon Society (Audubon). 2019. Audubon Guide to North American Birds. Available at: <http://www.audubon.org/bird-guide>. Accessed January 22, 2019.
- Natural Resources Conservation Service (NRSC). 2019. Web Soil Survey for San Mateo County. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> Accessed February 8, 2019.
- Penrod, K, R Hunter, and M Marrifield. 2001. *Missing Linkages: restoring connectivity to the California landscape*. California Wilderness Coalition, The Nature Conservancy, US Geological Survey, Center for Reproduction of Endangered Species, and California State Parks.
- Steven F. Connelly, C.E.G. 2017. *Engineering Geologic Investigation for Proposed Road and Water Main Canyon Lane, San Mateo County, California*. San Jose, California.
- U.S. Fish and Wildlife Service (USFWS). 2019. Official species lists online. U.S. Fish and Wildlife Service, Sacramento District.
- _____. 1998. *Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area*. Portland, Oregon. 330+ pp.
- Wetlands Professional Services. 2017. *Intermittent and Ephemeral Streams and Ditches*. Available at: <http://www.wetlandsprofessional.com/intermittent-and-ephemeral-streams.html>
- Zeiner, D.C., W.F. Laudenslayer Jr., K.F. Mayer, and M. White, editors. 1988-1990. California's Wildlife. Volume I-III. California Department of Fish and Game, Sacramento, California.

APPENDIX A

CNDDDB Maps

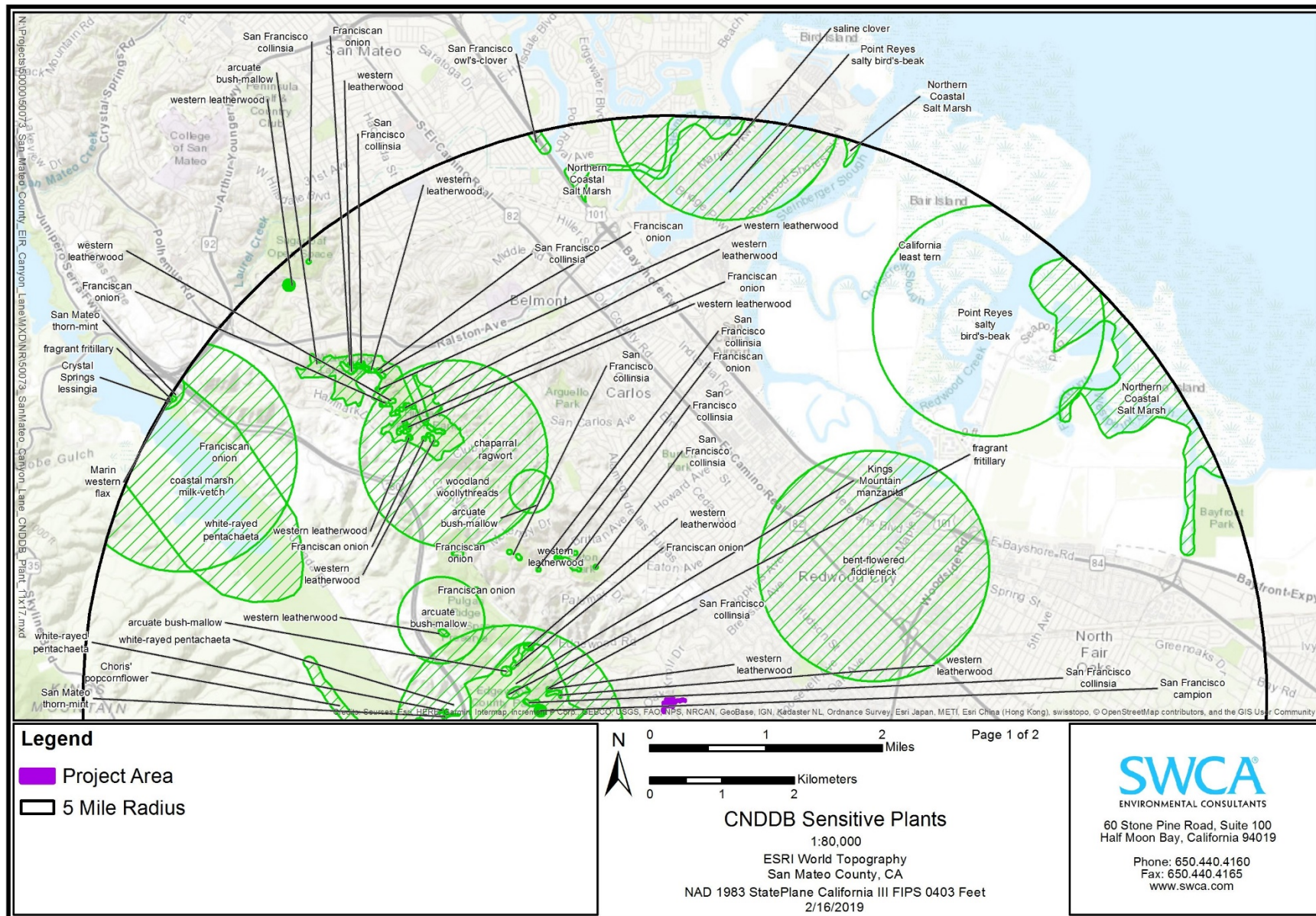


Figure 3a: CNDDB Sensitive Plant Records (1 of 2)

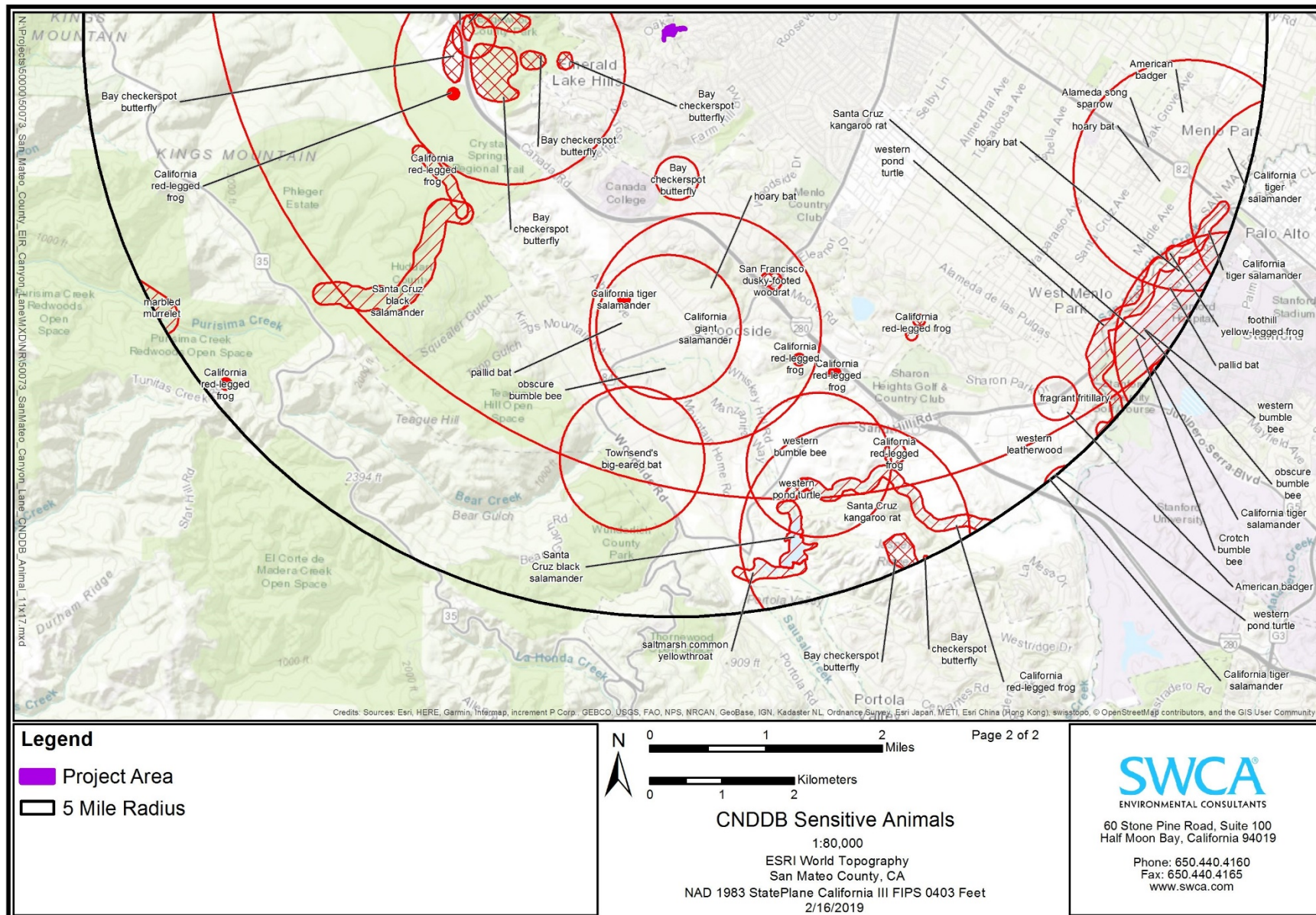


Figure 4b: CNDDB Sensitive Animal Records (2 of 2)