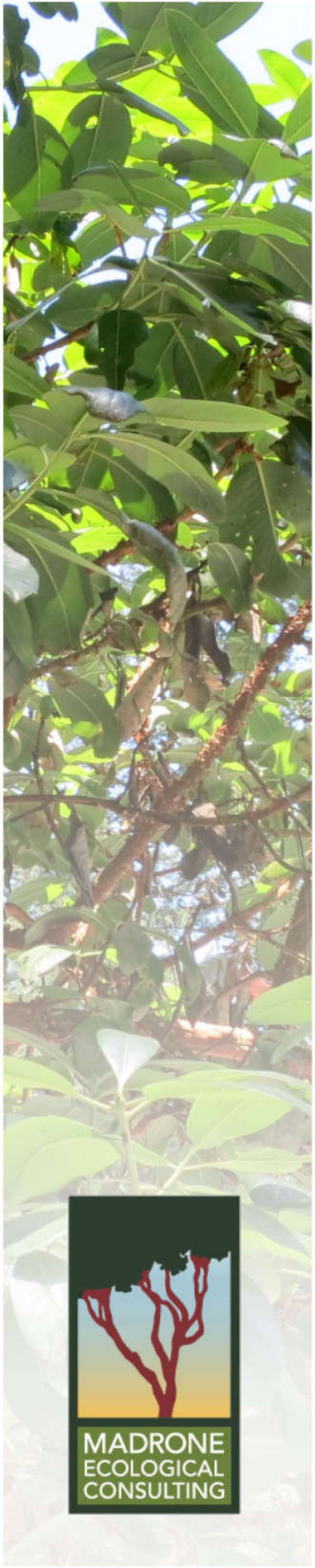

Biological Resources Assessment

Clayton Community Church

City of Clayton

14 January 2021

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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Clayton Community Church Project (Project Area) (**Figure 1**). The 2.7-acre Project Area is located east of Pine Hollow Court, north of High Street, west of Mitchell Creek, and south of Mt. Diablo Elementary School in the City of Clayton, Contra Costa County, California. The Project Area is located in a portion of Section 14 of Township 1 North and Range 1 West (MDB&M) of the "*Clayton, California*" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2018) (**Figure 1**).

1.1 Project Description

The proposed Project is construction of a church and associated parking and landscaping. The proposed site plan is provided in **Attachment A**.

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the

MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of Project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the Project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on state or federally protected wetlands (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e., for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.2.4 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.3 Local Regulations

2.3.1 City of Clayton Tree Ordinance

Chapter 15.70 of the Clayton City Code (Tree Ordinance) establishes the requirement for a permit or development application required prior to the removal of protected trees (City of Clayton 2020). The Tree Ordinance defines protected trees as:

> *"…any tree that is of the following varieties: Ash (Fraxinus Dipetala); Bay (Umbellularia Californica); Box Elder (Acer Negundo); Buckeye (Aesculus Californica); Cherry (Prunus Emarginata, Prunus ilicifolia, Prunus Subcordata); Cottonwood (Populus Fremontii); Elderberry (Sambucus Mexicana); Hop Tree (Ptelea Crenulata); Madrone (Arbutus Menziesii); Maple (Acer Macrophyllum); Oak (Quercus agrifolia, Quercus Chrysolepis, Quercus Douglasii, Quercus Kelloggii, Quercus Lobata, Quercus Wislizeni); Sycamore (Platanus Racemosa); or Walnut (Juglans Hindsii)."*

The Tree Ordinance states that a Tree Removal Permit shall be obtained prior to the removal of:

> *A. A tree with a single trunk or multiple trunks with a cumulative trunk diameter of six (6) inches or greater, located on private or public property; or*
> *B. A tree of any size specifically required to be planted as part of a development application, landscape plan, or tree replacement plan approved by the City after April 1, 2005.*

2.3.2 California Native Plant Society – Locally Rare Plants

A list of locally rare plant species has been developed by the East Bay Chapter of the California Native Plant Society (*The Database of Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties*), and is available on-line at https://ebcnps.org/database-of-rare-unusual-and-significant-plants-of-alameda-and-contra-costa-counties/. The plant species included in this database are locally rare and are usually included in CEQA analysis.

2.3.3 East Contra Costa County Habitat Conservation Plan

The Project Area is within the *East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan* (ECCCHCP) Area. The ECCCHCP provides regional conservation and development guidelines to protect natural resources while improving and streamlining the permit process for endangered species and wetland regulations. The ECCCHCP provides streamlined permits from the USFWS and CDFW that allows project proponents to receive their endangered species approvals at the local planning counter.

3.0 METHODOLOGY

3.1 Literature Review

A list of special-status species with potential to occur within the Project Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDB) (CNDDB 2020) query of the Project Area and all areas within 5-miles of the Project Area (**Figure 2 and 3**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2020) query for the Project Area (**Attachment B**);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2020) query[1] of the "Clayton, California" USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**);
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2020); and
- East Bay Chapter of the California Native Plant Society's *The Database of Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties* available on-line at https://ebcnps.org/database-of-rare-unusual-and-significant-plants-of-alameda-and-contra-costa-counties/.

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Project Area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- Listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- Listed as threatened or endangered and candidates for listing by CDFW;
- Identified as Fully Protected species or species of special concern by CDFW;
- Identified as Medium or High priority species by the WBWG (WBWG 2020);
- Plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
    - CRPR 1A: Plants presumed extinct

[1] Note that due to funding, the CNPS Inventory has not been updated since May 2019. As a result, in addition to conducting a query of the CNPS Inventory, we reviewed the update spreadsheet for any changes that could be relevant to this site, and incorporated any that we found.

- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2A: Plants extirpated in California, but common elsewhere
- CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
- CRPR 3: Plants about which the CNPS needs more information – a review list; and

- Plant species considered to be locally rare by CNPS.

While the locally-rare plant species are locally of sufficient rarity to be considered under CEQA, statewide, they are more common. As a result, these species are not tracked by the spatially-searchable CNDDB or the CNPS Inventory. There are 22 A-ranked plant species that are not CRPR-listed included in the *Database of Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties* for grasslands below 600 feet in the Concord/Clayton/Walnut Creek area (which includes the Project Area). These species are not included in **Table 1** for brevity, but a list of these species has been provided in **Attachment D** for use in the rare plant survey.

3.1.1 Tree Survey

An arborist survey was conducted in May 2016 by The Forestree Company. Their *Arborist Report and Tree Survey* (Forestree, undated) was reviewed to determine what Protected Trees are present within the Project Area. As the report contained a hand-marked up map showing the tree locations, we manually approximated the Project Area on their map to determine which of the trees are within the Project Area (**Attachment E**).

3.2 Field Survey

Madrone senior biologist Daria Snider conducted a field survey of the Project Area on 30 June 2020 to assess the suitability of habitats on-site to support special-status species. Meandering pedestrian surveys were performed on foot through portions of the Project Area. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2020). A list of all wildlife species observed during field surveys is included as **Attachment F**. No protocol-level surveys were conducted during this visit.

4.0 EXISTING CONDITIONS

The Project Area is surrounded by urban residential development to the west and south, a school to the north, and an abandoned walnut orchard and the Mitchell Creek corridor to the east, beyond which is urban commercial development. The western portion of the Project Area is a relatively flat terrace, which drops off down a relatively steep hill through the abandoned walnut orchard to Mitchell Creek just east of the Project Area. Elevations range from approximately 400 feet to 450 feet above mean sea level. The Project Area is almost entirely comprised of annual brome grassland with scattered trees (**Figure 4**). A barn is present in the northwestern corner, and a rural residence is present just south of the southern boundary of

the site. A narrow strip of Pine Hill Court and a gravel driveway have been mapped as Developed. The majority of the trees are Valley oaks (*Quercus lobata*) and blue oaks (*Quercus douglassii*). There are a number of fruit trees around the residence, as well as scattered black walnut (*Juglans hindsii*), which appear to be stump sprouts from the historic orchard, and a few very large Italian stone pines (*Pinus pinea*). During the course of the field survey, a grass fire broke out on the site, and the biologist left for safety reasons; however, conditions are assumed to remain largely the same following the fire. The burning grass was dormant for the season, and is expected to return in similar condition next spring. No potential aquatic resources were observed within the Project Area.

The majority of the Project Area is comprised of annual brome grassland, which is dominated by ripgut brome (*Bromus diandrus*) and wild oat (*Avena fatua*). A number of non-native forbs are also prevalent, including mustard (*Hirschfeldia incana*), Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), prickly wild lettuce (*Lactuca serriola*), filaree (*Erodium botrys*), rose clover (*Trifolium hirtum*), salsify (*Tragopogon porrifolius*), and bindweed (*Convolvulus arvensis*).

4.1 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2020), two soil mapping units occur within the Project Area (**Figure 5**): (PaC) Perkins gravelly loam, 2 to 9 percent slopes and (PaD) Perkins gravelly loam, 9 to 15 percent slopes. The Perkins soils are very deep, well drained soils that formed in alluvium derived from mixed rock sources. (NRCS 2020). They are not derived from serpentine parent material, and are not considered saline, alkaline, or hydric (NRCS 2020).

5.0 RESULTS

Table 1 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Project Area. The following set of criteria was used to determine each species' potential for occurrence on the site:

- *Present*: Species occurs on the site based on CNDDB records, and/or was observed on the site during field surveys.
- *High*: The site is within the known range of the species and suitable habitat exists.
- Moderate: The site is within the known range of the species and very limited suitable habitat exists.
- *Low*: The site is within the known range of the species and there is marginally suitable habitat or the species was not observed during protocol-level surveys conducted on-site.
- *Absent/No Habitat Present*: The site does not contain suitable habitat for the species, the species was not observed during protocol-level floristic surveys conducted on-site, or the site is outside the known range of the species.

Figures 2 and 3 are exhibits displaying CNDDB occurrences and Critical Habitats within five miles of the Project Area. Below is a discussion of all special-status plant and animal species with potential to occur on the site. The Project Area does not occur within Critical Habitat for any federally-listed species.

Table 1. Special-Status Species Potential for Occurrence within the Project Area

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Plants				
Amsinckia grandiflora Large-flowered fiddleneck	FE	CE, CRPR 1B.1	Steep, somewhat mesic slopes in grasslands and woodlands (886′ - 1,804′).	**No Habitat Present.** Project Area is below the elevational range for the species, and mesic areas are not present.
Amsinckia lunaris Bent-flowered fiddleneck	--	CRPR 1B.2	Coastal bluff scrub, cismontane woodland, and grasslands (5' - 1,640').	**High.** Suitable habitat is present throughout the Project Area.
Arctostaphylos auriculata Mt. Diablo manzanita	--	CRPR 1B.3	Sandstone chaparral and cismontane woodland (443′ – 2,133′).	**No Habitat Present.** Project Area does not contain sandstone chaparral or woodlands.
Arctostaphylos manzanita ssp. laevigata Contra Costa manzanita	--	CRPR 1B.2	Rocky soils in chaparral (1,410′ – 3,609′).	**No Habitat Present.** Project Area is outside of the elevational range and does not contain rocky chaparral.
Astragalus tener var. tener Alkali milk-vetch	--	CRPR 1B.2	Playas, mesic areas within valley and foothill grasslands, and alkaline vernal pools (3′ – 197′).	**No Habitat Present.** Project Area is outside of the elevational range for the species, and alkaline mesic areas are not present.
Atriplex cordulata var. cordulata Heartscale	--	CRPR 1B.2	Alkaline or saline valley and foothill grasslands, meadows and seeps, and chenopod scrub communities (0′ – 1,837′).	**No Habitat Present.** Alkaline soils are not present within the Project Area.
Atriplex depressa Brittlescale	--	CRPR 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools, and is typically found on alkaline clay soils (3′ – 1,050′).	**No Habitat Present.** Alkaline soils are not present within the Project Area.
Blepharizonia plumosa Big tarplant	--	CRPR 1B.1	Found on clay soils in grasslands (98′ – 1,657′).	**No Habitat Present.** Clay soils are not present within the Project Area.

Calochortus pulchellus Mt. Diablo fairy-lantern	--	CRPR 1B.2	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland near woodlands (98′ – 2,756′).	**High.** Suitable habitat is present throughout the Project Area.
Campanula exigua Chaparral harebell	--	CRPR 1B.2	Chaparral on rocky, usually serpentinite substrates (902′ – 4,101′).	**No Habitat Present.** Project Area does not contain chaparral.
Centromadia parryi ssp. congdonii Congdon's tarplant	--	CRPR 1B.1	Valley and foothill grassland with alkaline soils (0′ – 755′).	**No Habitat Present.** Alkaline soils are not present within the Project Area.
Chloropyron molle ssp. molle Soft bird's beak	FE	CR, CRPR 1B.2	Found in coastal salt marshes and swamps (0′ – 10′).	**No Habitat Present.** No coastal salt marshes or swamps present.
Cicuta maculata var. bolanderi Bolander's water-hemlock	--	CRPR 2B.1	Coastal, fresh, or brackish marshes and swamps (0′ – 656′).	**No Habitat Present.** No coastal marshes or swamps present.
Cordylanthus nidularius Mt. Diablo bird's-beak	--	CR, CRPR 1B.1	Serpentinite substrates in chaparral (1,969′ – 2,625′).	**No Habitat Present.** Project Area does not contain serpentine or chaparral.
Cryptantha hooveri Hoover's cryptantha	--	CRPR 1A	Coarse sandy soils in Valley Grassland communities (30′ – 492′).	**No Habitat Present.** Coarse sandy soils do not occur within the Project Area.
Delphinium californicum ssp. interius Hospital Canyon larkspur	--	CRPR 1B.2	Openings in chaparral, mesic areas in cismontane woodland, and coastal scrub (640′ – 3,593′).	**No Habitat Present.** Project Area does not contain chaparral, woodland, or coastal scrub.
Dirca occidentalis Western leatherwood	--	CRPR 1B.2	Mesic areas in broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, and riparian woodland (82′ – 1,394′).	**No Habitat Present.** Project Area does not contain any of the shrub or forest habitats that this species is found in.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Mesic areas in valley and foothill grassland, and vernal pools (3′ – 1,460′).	**No Habitat Present.** Project Area does not contain mesic areas.

Eriastrum ertterae Lime Ridge eriastrum	--	CRPR 1B.1	Alkaline or semi-alkaline, sandy substrates in openings or along the edges of chaparral (656' – 951').	**No Habitat Present.** Project Area does not contain alkaline soils, sandy soils, or chaparral.
Eriogonum nudum var. psychicola Antioch Dunes buckwheat	--	CRPR 1B.1	Inland dunes (0' – 66').	**No Habitat Present.** No dunes present.
Eriogonum truncatum Mt. Diablo buckwheat	--	CRPR 1B.1	Sandy soils in chaparral, coastal scrub, valley and foothill grassland (10' – 1,148').	**No Habitat Present.** Project Area does not contain sandy soils.
Eryngium jepsonii Jepson's coyote thistle	--	CRPR 1B.2	Clay soils of valley and foothill grassland, and vernal pools (10' – 9,842').	**No Habitat Present.** Project Area does not contain clay soils or mesic areas.
Erysimum capitatum var. angustatum Contra Costa wallflower	FE	CE, CRPR 1B.2	Found in inland dunes (10' – 66').	**No Habitat Present.** No dunes present.
Eschscholzia rhombipetala Diamond-petaled California poppy	--	CRPR 1B.1	Valley and foothill grassland in alkaline and clay soils (0' – 3,199').	**No Habitat Present.** Project Area does not contain alkaline or clay soils.
Extriplex joaquinana San Joaquin spearscale	--	CRPR 1B.2	Found in alkaline soils in meadows and seeps and playas in chenopod scrub and valley and foothill grassland (3' – 2,740').	**No Habitat Present.** Project Area does not contain alkaline soils.
Fritillaria liliacea Fragrant fritillary	--	CRPR 1B.2	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often on serpentinite substrates (10' – 1,345').	**Low.** Marginally suitable habitat is present in the annual brome grasslands within the Project Area.
Grimmia torenii Toren's grimmia	--	CRPR 1B.3	Openings, rocky substrates, boulder and rock walls, carbonate substrates, and volcanic substrates in chaparral, cismontane woodland, and lower montane coniferous forest (1,066' – 3,806').	**No Habitat Present.** Project Area does not contain any of the shrub or forest habitats that this species is found in.

Helianthella castanea Diablo helianthella	--	CRPR 1B.2	Usually rocky, azonal soils in broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, often in partial shade (197′ – 4,265′).	**No Habitat Present.** Project Area does not contain rocky, azonal soils or any of the shrub or forest habitats that this species is found in.
Hesperolinon breweri Brewer's western flax	--	CRPR 1B.1	Usually in serpentine soils of chaparral, cismontane woodland, and valley and foothill grassland (98′ – 3,100′).	**Low.** Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.
Isocoma arguta Carquinez goldenbush	--	CRPR 1B.1	Alkaline soils in valley and foothill grasslands (3′ – 66′).	**No Habitat Present.** Project Area is outside of this species' distributional range, and no alkaline soils are present.
Lasthenia conjugens Contra Costa goldfields	FE	CRPR 1B.1	Mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland and vernal pools (0′ – 1,542′).	**No Habitat Present.** Project Area does not contain alkaline soils or mesic areas.
Lathyrus jepsonii var. jepsonii Delta tule pea	--	CRPR 1B.2	Freshwater and brackish marshes and swamps (0′ – 17′).	**No Habitat Present.** No marshes occur within the Project Area.
Lilaeopsis masonii Mason's lilaeopsis	--	CR, CRPR 1B.1	Brackish or freshwater marshes or swamps and riparian scrub (0′ – 33′).	**No Habitat Present.** No marshes or riparian scrub occur within the Project Area.
Limosella australis Delta mudwort	--	CRPR 2B.1	Usually mud banks in freshwater or brackish marshes and swamps and riparian scrub (0′ – 10′).	**No Habitat Present.** No marshes or riparian scrub occur within the Project Area.
Madia radiata Showy golden madia	--	CRPR 1B.1	Cismontane woodland and valley and foothill grassland (82′ – 3,986′).	**High.** Suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

Malacothamnus hallii Hall's bush-mallow	--	CRPR 1B.2	Chaparral, coastal scrub (32′ – 2,493′).	**No Habitat Present.** No chaparral or coastal scrub occurs within the Project Area.
Micropus amphibolus Mt. Diablo cottonweed	--	CRPR 3.2	Rocky areas in chaparral, forests and woodlands, and grassland (145' - 2,705').	**No Habitat Present.** No rocky areas are present within the Project Area.
Monardella antonina ssp. antonina San Antonio Hills monardella	--	CRPR 3	Chaparral, cismontane woodland (1,050′ – 3,281′).	**No Habitat Present.** No chaparral or woodland occurs within the Project Area.
Monolopia gracilens Woodland woolythreads	--	CRPR 1B.2	Serpentinite substrates in openings in broadleafed upland forest and chaparral, cismontane woodland, openings in North Coast coniferous forest, and valley and foothill grassland (328′ – 3,937′).	**No Habitat Present.** No serpentine soils occur within the Project Area.
Navarretia gowenii Lime Ridge navarretia	--	CRPR 1B.1	Chaparral (591′ – 1,001′).	**No Habitat Present.** Project Area does not contain chaparral.
Navarretia nigelliformis ssp. radians Shining navarretia	--	CRPR 1B.2	Forb-rich openings in valley or foothill grassland, vernal pools, and cismontane woodland (249′ – 3,281′).	**Low.** No forb-rich openings were observed in the annual brome grassland within the Project Area, and clay soils are lacking. Therefore, the habitat is considered only marginal.
Neostapfia colusana Colusa grass	FT	CE, CRPR 1B.1	Large vernal pools with adobe soils (16′ – 656′).	**No Habitat Present.** No vernal pools occur within the Project Area.
Oenothera deltoides ssp. howellii Antioch Dunes evening-primrose	FE	CE, CRPR 1B.1	Found in inland dunes (0′ – 98′).	**No Habitat Present.** No dunes present.
Phacelia phacelioides Mt. Diablo phacelia	--	CRPR 1B.2	Rocky substrates in chaparral and cismontane woodland (1,640′ – 4,495′).	**No Habitat Present.** No chaparral or woodland occurs within the Project Area.

Plagiobothrys hystriculus Bearded popcornflower	--	CRPR 1B.1	Often in vernal swales, and in mesic areas of valley and foothill grassland and vernal pool margins (0′ – 899′).	**No Habitat Present.** Project Area does not contain mesic areas.
Sanicula saxatilis Rock sanicle	--	CR, CRPR 1B.2	Rocky, scree, and talus substrates in broadleafed upland forest, chaparral, and valley and foothill grassland (2,034′ – 3,855′).	**No Habitat Present.** Outside of the elevational range of the species, and no rocky substrates occur within the Project Area.
Senecio aphanactis Chaparral ragwort	--	CRPR 2B.2	Sometimes alkaline soils in chaparral, cismontane woodland, coastal scrub (49′ – 2,625′).	**No Habitat Present.** No chaparral, scrub or woodland occurs within the Project Area.
Streptanthus albidus ssp. peramoenus Most beautiful jewelflower	--	CRPR 1B.2	Serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland (312′ – 3,281′).	**No Habitat Present.** No serpentine soils occur within the Project Area.
Streptanthus hispidus Mt. Diablo jewelflower	--	CRPR 1B.3	Rocky soils in chaparral and valley and foothill grassland (1,198′ – 3,937′).	**No Habitat Present.** Outside of the elevational range of the species, and no rocky substrates occur within the Project Area.
Stuckenia filiformis ssp. alpina Slender-leaved pondweed	--	CRPR 2B.2	Assorted shallow freshwater marshes and swamps (984′ – 7,054′).	**No Habitat Present.** No marshes occur within the Project Area.
Symphyotrichum lentum Suisun Marsh aster	--	CRPR 1B.2	Found in freshwater and brackish marshes and swamps (0′ – 10').	**No Habitat Present.** No marshes occur within the Project Area.
Trifolium hydrophilum Saline clover	--	CRPR 1B.2	Marshes, mesic areas in grassland and vernal pools on alkaline soils (0' - 985').	**No Habitat Present.** Project Area does not contain mesic areas or alkaline soils.
Triquetrella californica Coastal triquetrella	--	CRPR 1B.2	Soil in coastal bluff scrub and coastal scrub (33′ – 328′).	**No Habitat Present.** No coastal scrub occurs within the Project Area.

Tropidocarpum capparideum Caper-fruited tropidocarpum	--	CRPR 1B.1	Alkaline hills in valley and foothill grassland (3′ – 1,493′).	**No Habitat Present.** Project Area does not contain alkaline soils.
Viburnum ellipticum Oval-leaved viburnum	--	CRPR 2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities (705′ – 4,593).	**No Habitat Present.** No chaparral or woodland occurs within the Project Area.
Invertebrates				
Bombus crotchii Crotch bumble bee	--	CC	Occurs in open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014; Richardson et al 2014).	**Low.** The annual grasslands within the Project Area appear to support minimal floristic diversity, and very few ground squirrel burrows that represent potential nesting and overwintering habitat. Given the isolation of this site from other more suitable habitat, and the low quality, this site represents extremely marginal habitat for this species.
Bombus occidentalis Western bumble bee	--	CC	Meadows and grasslands with the blended floral resources are the appropriate habitat for this sub-species. While the Western bumble bee was historically known throughout the mountains and northern coast of California, it is now largely confined to high elevation sites and a small handful of records on the northern California coast (Cameron et al. 2011a; Xerces Society 2012: Williams et al. 2014; Xerces Society et al. 2017).	**Low.** The annual grasslands within the Project Area appear to support minimal floristic diversity, and very few ground squirrel burrows that represent potential nesting and overwintering habitat. Given the isolation of this site from other more suitable habitat, and the low quality, this site represents extremely marginal habitat for this species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Vernal pools.	**No Habitat Present.** No vernal pools are present in the Project Area.

Callophrys mossii bayensis San Bruno elfin butterfly	FE	--	Found on fog-influernced mountains in San Mateo and Marin counties, and on Mount Diablo (CNDDB 2019). It lives near prolific growths of the larval food plant, broadleaf stonecrop (*Sedum spathulifolium*), which is associated with rocky outcrops (often in the shade) that occur on steep, mainly north-facing slopes from 200 to 5,000 ft.	**No Habitat Present.** Rocky outcrops with extensive populations of broadleaf stonecrop do not occur within the Project Area.
Fish				
Hypomesus transpacificus Delta smelt	FT	CE	Tidally-influenced drainages in the Sacramento and San Joaquin River delta.	**No Habitat Present.** No tidally influenced drainages are present within the Project Area.
Amphibians				
Ambystoma californiense California tiger salamander	FT	CT, CSC	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	**No Habitat Present.** This site is an infill within urban development. No ponds are present in the immediate vicinity, and any that may be present further out are seperated from the site by urban residential areas.
Rana boylii Foothill yellow-legged frog	--	CC, CSC	Shallow tributaries and mainstems of perennial streams and rivers, typically associated with cobble or boulder substrate. Found from sea level to 5,000 feet in the Sierra Nevada (Seltenrich and Pool 2002).	**No Habitat Present.** No creek occurs within the Project Area, and this highly aquatic species rarely access uplands adjacent to aquatic habitat. Furthermore, although this species was documented in Mitchell Creek upstream of the Project Area, it is considered extirpated from the area.

Rana draytonii California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages. This highly aquatic species uses uplands within approximately 200 feet for dispersal from one breeding location to another breeding location. Apart from this dispersal, this species remains in the immediate vicinity of aquatic habitat.	**No Habitat Present.** Although this species has been documented in Mitchell Creek and a reservoir upstream of the Project Area, breeding/aquatic habitat is not present within the Project Area. There is no additional aquatic habitat in the vicinity, and as a result, the species would not use the grasslands within the Project Area for dispersal.
Reptiles				
Actinemys marmorata Western pond turtle	--	CSC	Aquatic habitat includes ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat. Utilizes riparian areas adjacent to aquatic habitat for nesting.	**No Habitat Present.** No suitable aquatic or nesting habitat occurs within the Project Area.
Masticophis lateralis eurycanthus Alameda whipsnake	FT	CT	Occurs in coastal scrub and chaparral communities, but also forages in a variety of other communities in the inner Coast Range, including grasslands and open woodlands. Rock outcrops with deep crevices or abundant rodent burrows are important habitat components.	**No Habitat Present.** The Project Area is an infill site that is almost entirely surrounded by urban residential development. A snake would have to follow a very narrow corridor of riparian vegetation almost a mile from the nearest undeveloped habitat, including across several roadways. This seems excessively unlikely. The nearest documented occurence of this species is 1.25 miles south of the Project Area (CNDDB 2020).

Phrynosoma blainvillii Coast (Blainville's) Horned Lizard	--	CSC	Open areas of sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills.	**No Habitat Present.** The soils within the Project Area are not sandy, and the grassland is dense. The only open areas are in the immediate vicinity of the occupied residence where suitable soils are lacking.
Thamnophis gigas Giant garter snake	FT	CT	Occurs in freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range.	**No Habitat Present.** Outside of the distributional range of the species.
Birds				
Agelaius tricolor Tricolored blackbird	--	CE, CSC	Colonial nester in dense vegetation, such as cattails, bulrush, or blackberries associated with marsh habitats.	**No Nesting Habitat Present.** Dense vegetation does not occur within the Project Area. May forage seasonally.
Aquila chrysaetos Golden eagle	--	CFP	Nests on cliff ledges, river banks, trees, platforms, and transmission towers throughout California, except the immediate coast, Central Valley, Salton Sea and Colorado River regions, where they can be found during Winter.	**No Habitat Present.** The numerous trees and the small isolated patch size preclude this very large raptor species from foraging within the Project Area.
Athene cunicularia Burrowing owl	--	*CSC*	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	**Low.** The small, isolated nature of the site, the density of the grassland, and the almost complete lack of ground squirrel burrows make the Project Area extremely marginal habitat for this species.

Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	**Low.** The numerous trees and the small isolated patch size make the Project Area extremely marginal foraging habitat for this species.
Circus hudsonicus Northern harrier	--	CSC	Nests on the ground in open wetlands, marshy meadows, wet/lightly grazed pastures, (rarely) freshwater/brackish marshes, tundra, grasslands, prairies, croplands, desert, shrub-steppe, and (rarely) riparian woodland communities.	**No Habitat Present.** The numerous trees and the small isolated patch size preclude this species presence.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**Low.** The numerous trees and the small isolated patch size make the Project Area extremely marginal foraging habitat for this species.
Lanius ludovicianus Loggerhead shrike	--	CSC	Found throughout California in open county with short vegetation, pastures, old orchards, grasslands, agricultural areas, open woodlands. Not found in heavily forested habitats.	**Moderate.** The small isolated patch size and the tall, dense grassland make the Project Area low quality habitat for this species.
Rallus longirostris obsoletus California clapper rail	FE	CE, CFP	San Francisco and San Pablo Bay tidal marshes, sloughs, with pickleweed (*Salicornia* spp.), cordgrass (*Spartina* spp.), and gum plant (*Grindelia* spp.).	**No Habitat Present.** No tidal marshes occur within the Project Area.
Sternula antillarum browni California least tern	FE	CE, CFP	Nests along Pacific Coast from San Francisco Bay south the Mexico; nests colonially, on sand or dried mudflats, sand or shell islands, and gravel and sand pits and rarely in agricultural fields, parking lots, airports, and flat/graveled rooftops.	**No Habitat Present.** Project Area lacks suitable nesting habitat.

Mammals				
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Roosts in crevices in rocky outcrops and cliffs, caves, mines, cavities and exfoliating bark of trees, and various human structures such as bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2020).	**High.** The trees throughout the Project Area and the barn in the northwestern portion of the Project Area provide suitable roosting habitat for this species.
Corynorhinus townsendii townsendii Townsend's big-eared bat	--	CSC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of trees. Extremely sensitive to human disturbance (WBWG 2020).	**Low.** The barn in the northwestern portion of the Project Area provides marginally suitable roosting habitat for this species.
Lasiurus cinereus Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings (WBWG 2020).	**High.** Trees scattered throughout the site are suitable roosting habitat for this species.
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	Require large leaf trees such as cottonwoods, willows, and fruit/nut trees for daytime roosts.	**High.** The abandoned walnut trees provide suitable roosting habitat for this species.
Neotoma fuscipes annectens San Francisco dusky footed woodrat	--	CSC	Typically found in dense chaparral, forests and woodlands with heavy undergrowth.	**No Habitat Present.** Dense chaparral or woodlands are not present.
Vulpes macrotis mutica San Joaquin kit fox	FE	CT	Occupies grasslands and sagebrush scrub.	**No Habitat Present.** The small patch size, low habitat quality, and infill nature of this site preclude this species' presence.

Status Codes:

CC - CDFW Candidate for Listing
CE - CDFW Endangered
CFP - CDFW Fully Protected
CR - CDFW Rare
CRPR - California Rare Plant Rank
CSC - CDFW Species of Concern
CT - CDFW Threatened
FC - Candidate for Federal Listing
FD - Federally Delisted
FE - Federally Endangered
FP - Proposed for Federal Listing
FT - Federally Threatened
WBWG M - Western Bat Working Group Medium Threat Rank
WBWG H - Western Bat Working Group High Threat Rank

5.1 Plants

5.1.1 Bent-Flowered Fiddleneck

Bent-flowered fiddleneck (*Amsinckia lunaris*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, and valley and foothill grasslands (CNPS 2020). Bent-flowered fiddleneck blooms from March through June and is known to occur at elevations ranging from approximately 10 feet to 1,640 feet above MSL (CNPS 2020).

Bent-flowered fiddleneck has not been documented within five miles of the Project Area (CNDDB 2020, CCH 2020, CalFlora 2020). Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

5.1.2 Mt. Diablo Fairy Lantern

Mt. Diablo fairy lantern (*Calochortus pulchellus*) is not federally or state listed, but it is classified as a CRPR List 1B.2 species. This species is perennial bulb that occurs in chaparral, cismontane and riparian woodlands, and valley and foothill grasslands (CNPS 2020). Mt. Diablo fairy lantern blooms from April through June and is known to occur from approximately 98 feet to 2,755 feet above MSL (CNPS 2020).

Nineteen occurrences of Mt. Diablo fairy lantern have been documented within five miles of the Project Area in the CNDDB, the nearest of which is located approximately 1.5 miles south of the site, in Mitchell Canyon (CNDDB 2020). Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

5.1.3 Fragrant Fritillary

Fragrant fritillary (*Fritillaria liliacea*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is a perennial bulbiferous herb that is found in cismontane woodland, coastal prairie, coastal scrub, and Valley and foothill grassland, often on serpentine soils (CNPS 2020). Fragrant fritillary blooms from February through April and is known to occur from 10 to 1,345 feet above MSL (CNPS 2020).

Fragrant fritillary has not been documented in the CNDDB within five miles of the Project Area (CNDDB 2020); however, there is one record in CalFlora approximately five miles southwest of the Project Area (CalFlora 2020). Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

5.1.4 Showy Golden Madia

Showy golden madia (*Madia radiata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in cismontane woodland and Valley and foothill grasslands (CNPS 2020). Showy golden madia blooms between March and May and is known to occur at elevations ranging from 82 to 3,986 feet above MSL (CNPS 2020).

One CNDDB record of showy golden madia has been documented approximately 4.5 miles east of the Project Area, and several records in the same general location are documented in the CCH (CNDDB 2020, CCH 2020). All of these records are from the late 1800's and early to mid1900's; this species has not been documented in the Bay Area since 1941 (CalFlora 2020). Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

5.1.5 Shining Navarretia

Shining navarretia (*Navarretia nigelliformis* ssp. *radians*) is not federally or state listed, but it is classified as a CRPR List 1B.2 species. This annual herb is primarily associated with forb-rich openings in cismontane woodland and valley and foothill grassland, often on clay soils (CNPS 2020). Shining navarretia occurs at elevations between approximately 210 feet and 3,280 feet, and typically blooms from April through July (CNPS 2019).

Shining navarretia has not been documented in the CNDDB within five miles of the Project Area (CNDDB 2020). Marginally suitable habitat for this species is present in the Annual Brome Grasslands throughout the Project Area.

5.1.6 Locally Rare Plant Species

There are 22 A-ranked plant species that are not CRPR-listed included in the *Database of Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties* for grasslands below 600 feet in the Concord/Clayton/Walnut Creek area (which includes the Project Area). These species are not included in **Table 1** for brevity, but a list of these species has been provided in **Attachment D** for use in the rare plant survey.

5.2 Invertebrates

5.2.1 Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) has a limited distribution in southwestern North America. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, West Desert, Great Valley, and adjacent foothills through most of southwestern California. It also occurs in Mexico (Baja California and Baja California Sur) (Williams et al. 2014) and has been documented in southwest Nevada, near the California border.

In California, *B. crotchii* inhabits open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014). There is one documented occurrence of this species within five miles of the Project Area located approximately 2.5 miles north within the City of Antioch (CNDDB 2020). This occurrence was documented in 1926 and exact location is unknown.

One CNDDB record of Crotch bumblebee was documented approximately four miles southeast of the Project Area in 1951 (CNDDB 2020). The annual grasslands within the Project Area appear to support minimal floristic diversity, and very few ground squirrel burrows that represent potential nesting and overwintering habitat. Given the isolation of this site from other more suitable habitat, and the low quality, this site represents extremely marginal habitat for this species. Since crotch bumble bee is currently absent from most of the Central Valley of California, there is a very low potential for the species to be present within the Project Area.

5.2.2 Western Bumble Bee

Western bumble bee (*Bombus occidentalis occidentalis*) was historically broadly distributed across the West Coast of North America from southern British Columbia to central California, east through Alberta and western South Dakota, and south to Arizona and New Mexico (Williams et al 2014). In California, it has been documented in Alameda, Alpine, Calaveras, Contra Costa, Del Norte, El Dorado, Fresno, Humboldt, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Modoc, Monterey, Napa, Nevada, Placer, Plumas, San Benito, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Tehama, Trinity, Tulare, Yolo, and Yuba counties (Xerces Society et al. 2018).

Meadows and grasslands with the blended floral resources are the appropriate habitat for this sub-species. While the Western bumble bee was historically known throughout the mountains and northern coast of California, it is now largely confined to high elevation sites and a small handful of records on the northern California coast (Williams et al. 2014; Xerces Society et al. 2018).

Four records of western bumblebee have been documented within five miles of the Project Area, the most recent of which is from 1974 (CNDDB 2020). The annual grasslands within the Project Area appear to support minimal floristic diversity, and very few ground squirrel burrows that represent potential nesting and overwintering habitat. Given the isolation of this site from other more suitable habitat, and the low quality, this site represents extremely marginal habitat for this species. Since western bumble bee is currently absent from most of the Central Valley of California, there is a very low potential for the species to be present within the Project Area.

5.3 Birds

5.3.1 Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFW. They typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use man-made structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement (CDFG 1995). The breeding season extends from February 1 through August 31 (CBOC 1993, CDFG 1995, CDFG 2012).

There are three documented occurrences of burrowing owl within five miles of the Project Area (CNDDB 2020). The small, isolated nature of the site, the density of the grassland, and the almost complete lack of ground squirrel (*Spermophilis beechyi*) burrows make the annual brome grasslands within the Project Area extremely marginal habitat for this species.

5.3.2 Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is listed as threatened by CDFW. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents (Shuford and Gardali 2008). The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter (Shuford and Gardali 2008).

There is one documented occurrence of Swainson's hawk nesting within five miles of the Project Area in the CNDDB from 1898 (CNDDB 2020). The eBird database contains a number of more recent records within five miles of the Project Area, but all of these are foraging records (eBird 2020). Due to the small, isolated nature of the site, and the trees scattered throughout the habitat, the annual brome grasslands within the Project Area represent extremely marginal foraging habitat for Swainson's hawk.

5.3.3 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or state listed, but is a CDFW fully protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands (Shuford and Gardali 2008). White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range (Shuford and Gardali 2008).

White-tailed kite has not been documented within five miles of the Project Area in the CNDDB (CNDDB 2020); however, foraging white-tailed kites have been documented numerous times in the eBird database (eBird 2020). This species has not been documented nesting in the vicinity of the Project Area (CNDDB

2020, eBird 2020). Due to the small, isolated nature of the site, the annual brome grasslands within the Project Area represent marginal foraging habitat for white-tailed kite.

5.3.4 Loggerhead Shrike

The loggerhead shrike *(Lanius ludovicianus)* is not listed and protected pursuant to either the California or federal Endangered Species Acts; but is a CDFW species of special concern. Loggerhead shrikes nest in small trees and shrubs in woodland and savannah vegetation communities, and forage in open habitats throughout California (Shuford and Gardali 2008). The nesting season ranges from March through June.

Loggerhead shrikes have not been documented within five miles of the Project Area in the CNDDB (CNDDB 2020); however, they have been documented several times in the eBird database (eBird 2020). Due to the small, isolated nature of the site, the annual brome grasslands within the Project Area represent marginal foraging habitat for loggerhead shrike, and the trees and shrubs within the Project Area represent marginal nesting habitat.

5.4 Mammals

5.4.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2020). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing (WBWG 2020).

There are two documented occurrences of pallid bat within five miles of the Project Area (CNDDB 2020). Tree hollows and exfoliating bark on trees within the Project Area, and the barn in the northwestern portion of the Project Area provide suitable roosting habitat for this species.

5.4.2 Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the federal or California Endangered Species Acts; however, this species is considered a species of special concern by CDFW. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large rabbit-like ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. This species has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and

hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (WBWG 2020).

There are two documented occurrences of Townsend's big-eared bat within five miles of the Project Area (CNDDB 2020). Both of these records are from the 1920's and 1930's; we could not find any more recent records. The barn in the northwestern portion of the Project Area provides marginally suitable roosting habitat for this species due to the frequency of human use.

5.4.3 Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a high-priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs (WBWG 2020). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores) used as foraging (WBWG 2020).

Western red bat has not been documented in the CNDDB within five miles of the Project Area (CNDDB 2020). Trees throughout the Project Area represent suitable roosting habitat for western red bat. The open areas within the Project Area provide suitable foraging habitat for the species.

5.4.4 Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or state listed, but is classified by the WBWG as a Medium priority species. It is considered to be one of the most widespread of all American bats with a range extending from Canada to central Chile and Argentina as well as Hawaii (WBWG 2020). Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of a clearing (WBWG 2020). This species may also occasionally roost in caves, beneath a rock ledge, in a woodpecker hole, in a grey squirrel nest, under a wood plank, or clinging to the side of a building (WBWG 2020).

One occurrence of hoary bat has been documented within five miles of the Project Area in the 1950's (CNDDB 2020). Trees throughout the Project Area represent suitable roosting habitat for hoary bat. The open areas within the Project Area provide suitable foraging habitat for the species.

5.5 Trees

The Forestree company identified 46 trees within or with canopies that overlap the Project Area (**Attachment E**). Based on an aerial photograph review, this inventory may not be comprehensive. Of those

trees, ten would be considered Protected Trees under the Tree Ordinance, and are summarized in **Table 2**. The Protected Trees include four blue oaks and six Valley oaks (**Table 2**). Twenty-three trees are commercial black walnut rootstock; although they are technically a species protected under the Tree Ordinance. As these trees are not native, but a commercial rootstock variety, we do not believe that the City would consider them Protected Trees. The remaining 13 trees are other non-native species.

Table 2. Protected Trees Surveyed within the Project Area

Tree Number	Species	DBH	Condition
1	*Quercus douglasii*	36	Good
6	*Quercus douglasii*	30	Good
16	*Quercus lobata*	10	Good
28	*Quercus douglasii*	9,8	Fair
29	*Quercus lobata*	7	Good
30	*Quercus douglasii*	24	Good
39	*Quercus lobata*	12	Fair
40	*Quercus lobata*	18	Fair
41	*Quercus lobata*	14	Good
55	*Quercus lobata*	11,11	Good
Total	**4 *Quercus douglassii* 6 *Quercus lobata***	**190 inches**	

6.0 WILDLIFE MOVEMENT/CORRIDORS

The Project Area is an isolated parcel surrounded by urban development. As such, it is not expected to be utilized by wildlife for migration or other movement.

7.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential impacts to the biological resources discussed above associated with construction of the Project, as discussed in **Section 1.1** and shown in **Attachment A**.

7.1 Terrestrial Vegetation Communities

The Project Area corresponds to the impact foot print; as a result, the entire Project Area will be impacted (**Figure 6**). This includes 0.2 acre of Developed areas, and 2.5 acres of Annual Brome Grassland.

7.2 Special-Status Plant Species

The annual brome grasslands within the Project Area represent marginally suitable habitat for bent-flowered fiddleneck, Mt. Diablo fairy lantern, fragrant fritillary, and showy golden madia, as well as a number of locally-rare plant species. Protocol-level special-status plant surveys have not been conducted within the

Project Area. Approximately 2.5 acres of habitat for these species will be impacted by the Project (**Figure 6**).

7.3 Invertebrates

7.3.1 Crotch and Western Bumble Bee

The Annual Brome Grassland within the Project Area represents marginally suitable habitat for Crotch and western bumblebee, which were recently listed as candidate species under the California ESA. Approximately 2.5 acres of marginally suitable habitat for these species will be impacted by the Project (**Figure 6**). The removal of this marginally suitable habitat is not expected to be a significant impact to either bee. As a result, no mitigation for this removal has been recommended.

7.4 Birds

7.4.1 Nesting Raptors and Songbirds

Loggerhead shrike has the potential to nest within the Project area, as do other more common bird species protected by the MBTA. If they were nesting on-site, removal of the nests would impact these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

7.4.2 Foraging Raptors and Winter Foraging Birds

The annual brome grassland within the Project Area provides marginally suitable foraging habitat for Swainson's hawk, white-tailed kite, and other more common raptors. Approximately 2.5 acres of annual brome grassland will be directly impacted by the proposed Project (**Figure 6**). Given the urban setting of the Project Area, and the low quality of habitat due to the presence of trees throughout the site, the removal of this habitat is not expected to be a significant impact to foraging special-status and more common raptors in the area. As a result, no mitigation for this impact has been recommended.

7.4.3 Burrowing Owl

The annual brome grassland within the Project Area provides marginally suitable habitat for burrowing owl. If ground disturbance occurred while burrowing owls were in burrows, individuals of this species could be injured or killed. Approximately 2.5 acres of annual brome grassland foraging habitat will be directly impacted by the proposed Project (**Figure 6**). Due to the paucity of burrows and the marginal nature of the habitat, the development of the project is not expected to be a significant impact to burrowing owl foraging habitat. As a result, no foraging habitat mitigation for this impact has been recommended.

7.5 Mammals

7.5.1 Roosting Bats

Abandoned buildings and trees throughout the Project area are habitat for various special-status bats species. If special-status bats were roosting in trees or buildings to be removed by Project construction they could be injured or killed.

7.6 Wildlife Corridors

Wildlife corridors are not present within the Project Area; therefore no impacts to wildlife corridors will occur.

7.7 Native Trees

A new arborist survey and report is being prepared for this Project that will have updated tree data and will analyze impacts. As a result, no tree impacts analysis is presented in this document.

8.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following mitigation measures may be required by the City for impacts to sensitive biological resources that may be associated with construction of the Project. The intent of these mitigation measures is to reduce impacts to biological resources to a less than significant level.

8.1 Special-Status Plant Species

Special-status plant surveys shall be conducted in accordance with CNPS and CDFW protocols throughout the Project Area within two years prior to the commencement of construction. The CNPS and CDFW protocols require that the surveys be conducted at the time of year that the target species are most identifiable; this often requires multiple survey visits to capture the identifiable period of all target species. If no special-status plant species are found, no further mitigation would be required. If special-status plants are found and will be impacted, mitigation for those impacts will be determined during consultation with the City. If the plant found is a perennial, then mitigation could consist of digging up the plant and transplanting it to a suitable nearby avoided area prior to construction. If the plant found is an annual, then mitigation could consist of collecting seed-bearing soil and spreading it in a suitable nearby avoided area prior to construction.

8.2 Crotch and Western Bumble Bee

The Project will impact potential foraging and nesting/overwintering habitat for the Crotch and western bumble bee species. To avoid take of these species the Project proponent shall do the following:

- Within 14 days prior to construction, a qualified biologist shall conduct a take avoidance survey for active bumble bee colony nesting sites. In order to maximize detection of active bee colonies, the take avoidance survey shall be conducted during the spring, summer, or fall during appropriate weather (not during cool overcast, rainy, or windy days). The biologist shall walk the entire area proposed for grading and inspect all rodent burrows for bumble bee activity. If any bumble bees are detected during the survey, they shall be identified to species.

- Any active colonies of Crotch bumble bee or western bumble bee shall be avoided and no work shall occur within 50-feet of the colony. If the colony is in a location proposed for development, consultation with CDFW will be necessary and an Incidental Take Permit from CDFW may be required prior to disturbance.

8.3 Nesting Raptors and Songbirds

The following nest survey requirements shall apply if construction activities take place during the typical bird breeding/nesting season (typically February 15 through September 1).

8.3.1 Burrowing Owls

A targeted take avoidance burrowing owl nest survey shall be conducted of all accessible areas within 250 feet of the proposed construction area within 14 days prior to construction activities utilizing 60 foot transects as outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) (Staff Report). If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist (Project Biologist) determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with the City to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined by the CDFW.

8.3.2 Other Birds

A pre-construction nesting bird survey shall be conducted by a qualified biologist on the Project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. If there is a break in construction activity of more than two weeks then subsequent surveys shall be conducted.

If active raptor nests are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Project

Biologist and approved by the City after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). A qualified biologist can visit the nest as needed to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

8.3.3 Survey Report

A report summarizing the survey(s), shall be provided to the City within 14 days of the completed survey. If no nests are found, no further mitigation is required.

8.3.4 Changes to Buffers and Completion of Nesting

Should construction activities cause a nesting bird do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the City. Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared indicating that the nest (or nests) are no longer active, and that no new nests have been identified.

8.4 Roosting Bats

To mitigate for potential impacts to roosting bats, the Project proponent shall do the following:

- A qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features within the proposed development footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to 1 year prior to the start of construction.
- If potential roosting habitat is identified within the areas proposed for development, the biologist shall survey the potential roosting habitat. Ideally, this survey should be conducted during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees F) to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof.
- If roosting bats are identified within any of the trees or buildings planned for removal, or if presence is assumed, then the qualified bat biologist shall specify appropriate exclusion methods according to where the roosting bats are located and what season the exclusion must occur. These exclusion methods may include two-step tree removal or building exclusion as detailed below. In general, the trees/buildings shall be removed outside of pup season only on days with temperatures in excess of 50 degrees F. Pup season is generally during the months of May through August. Two-step tree removal

involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree removal may occur.

- Removal of trees/buildings where no roosting habitat is identified during the survey is recommended to be conducted from January through March on days with temperatures in excess of 50 degrees F to avoid potential impacts to foliage-roosting bat species.

8.5 Protected Trees

To mitigate for the loss of Protected Trees, the Project applicant shall obtain a Tree Permit from the City of Clayton prior to the initiation of construction (i.e., ground clearing). This permit process includes completing the permit application form, paying a fee based on the type of application, preparing a site plan and arborist report, and preparing a Tree Replacement Plan to summarize how any impacted Protected Trees will be replaced. This can include both planting of new trees and/or paying an in-lieu fee.

In addition, to protect any trees that are located within 50 feet of construction from indirect effects, the Project applicant shall prepare a Tree Protection Plan as outlined in the Tree Ordinance and submit it to the City for review and approval prior to construction.

9.0 REFERENCES

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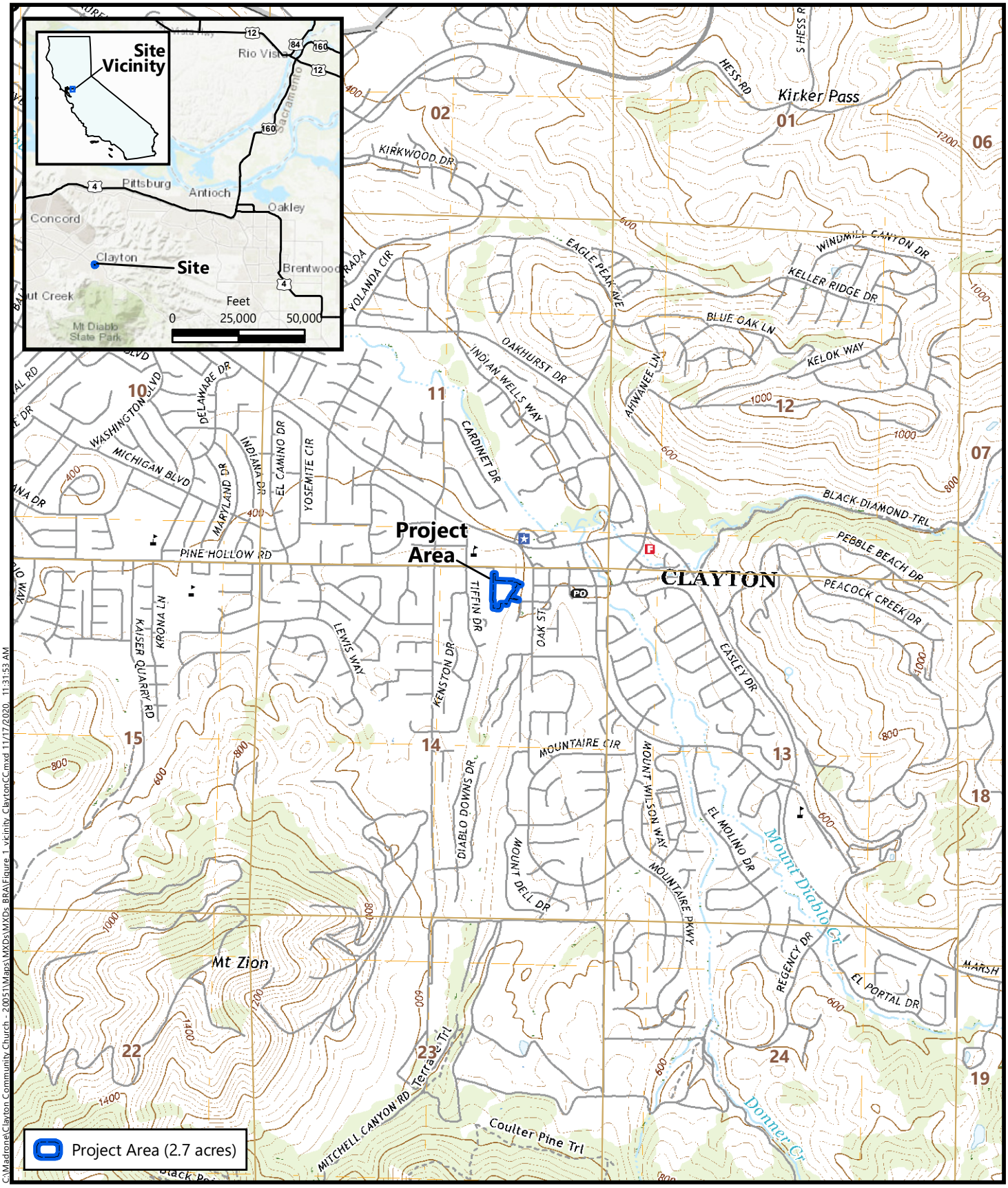
Figures



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Source: United States Geologic Survey, 2018.
Section 14, Township 1 North, Range 1 West, MDB&M
"Clayton, California" 7.5-Minute Topographic Quadrangle
Longitude -121.938331, Latitude 37.940205

Figure 1
Site and Vicinity

Clayton Community Church
Clayton, Contra Costa County, California

MADRONE ECOLOGICAL CONSULTING

Project Area (2.7)
5-Mile Radius of Project Area

Special Status Community

Serpentine Bunchgrass Grassland

Special-Status Plant Species

1 - Antioch Dunes Evening-Primrose
2 - Big Tarplant
3 - Brewer's Western Flax
4 - Caper-fruited Tropidocarpum
5 - Chaparral Harebell
6 - Chaparral Ragwort
7 - Coastal Triquetrella
8 - Contra Costa Goldfields
9 - Contra Costa Manzanita
10 - Diablo Helianthella
11 - Hall's Bush-mallow
12 - Hospital Canyon Larkspur
13 - Jepson's Coyote-Thistle
14 - Large-Flowered Fiddleneck
15 - Lime Ridge Eriastrum
16 - Lime Ridge Navarretia
17 - Most Beautiful Jewelflower
18 - Mt. Diablo Bird's-beak
19 - Mt. Diablo Buckwheat
20 - Mt. Diablo Fairy-lantern
21 - Mt. Diablo Jewelflower
22 - Mt. Diablo Manzanita
23 - Mt. Diablo Phacelia
24 - Oval-Leaved Viburnum
25 - Rock Sanicle
26 - San Joaquin Spearscale
27 - Showy Golden Madia
28 - Slender-Leaved Pondweed
29 - Toren's Grimmia
30 - Woodland Woollythreads

Study Area
See Inset
Inset
Concord
Pittsburg
Mt Diablo State Park

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Source: *California Department of Fish and Wildlife*, July 2020.
Basemap Source: *National Geographic* and *ESRI*

Figure 2
California Natural Diversity Database Occurrences of Plant Special-Status Species
Clayton Community Church
Clayton, Contra Costa County, California

MADRONE ECOLOGICAL CONSULTING

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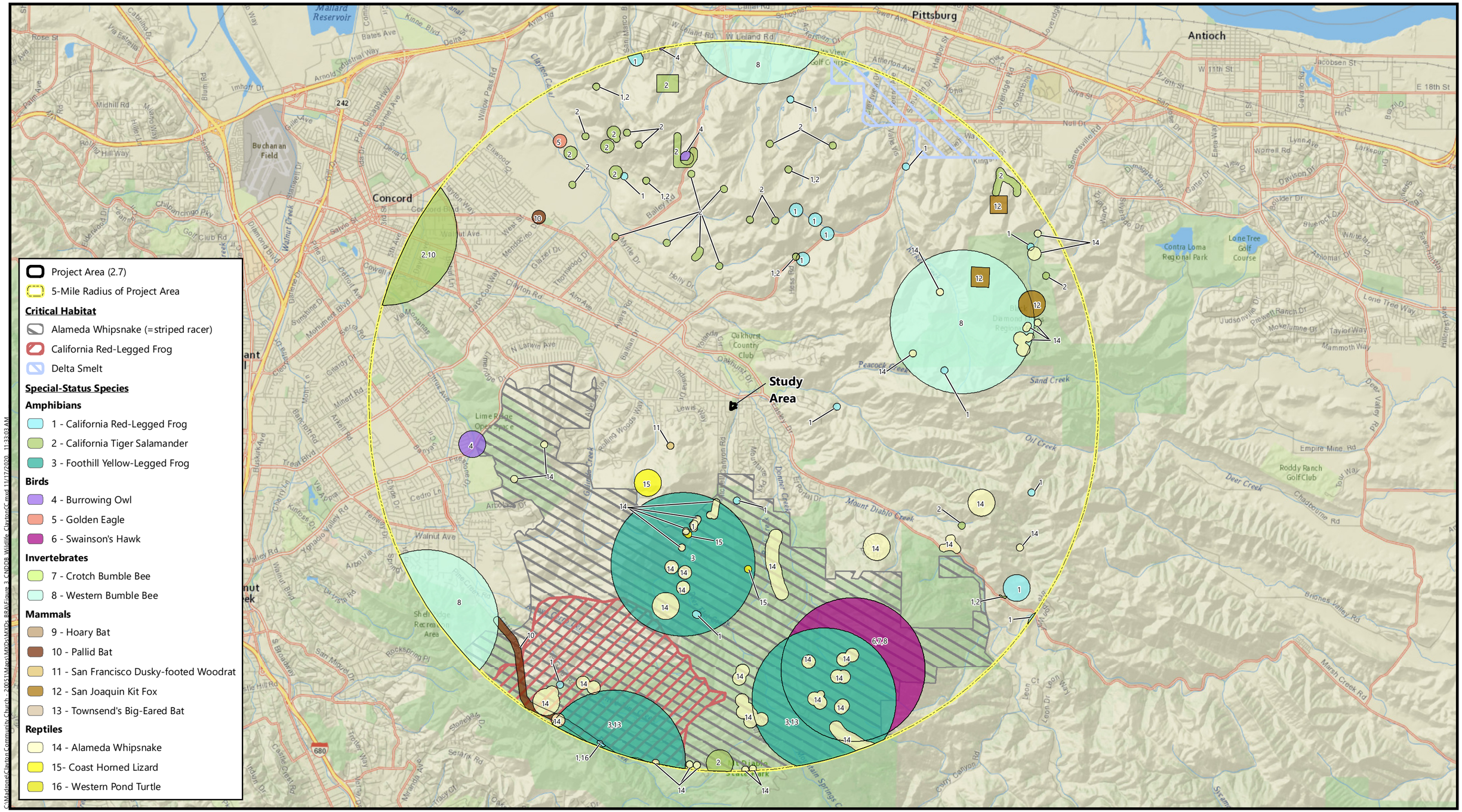

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0 1 2

Source: *California Department of Fish and Wildlife*, July 2020.
Basemap Source: *National Geographic* and *ESRI*

Figure 3
California Natural Diversity Database Occurrences of Wildlife Special-Status Species and Critical Habitat
Clayton Community Church
Clayton, Contra Costa County, California

MADRONE ECOLOGICAL CONSULTING

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Figure 4
Vegetation Communities

Clayton Community Church
Clayton, Contra Costa County, California

Aerial Source: Maxar, 4 November 2019.

MADRONE ECOLOGICAL CONSULTING

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Soil Survey Source: *USDA, Soil Conservation Service. Soil Survey Geographic (SSURGO) database for Contra Costa County, California*
Aerial Source: Maxar, 4 November 2019.

Figure 5
Natural Resources Conservation Service Soils

Clayton Community Church
Clayton, Contra Costa County, California

MADRONE ECOLOGICAL CONSULTING

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Aerial Source: Maxar, 4 November 2019.

Figure 6
Impacts to
Vegetation Communities

Clayton Community Church
Clayton, Contra Costa County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Site Plan

Attachment B. USFWS IPaC Species List

Attachment C. California Native Plant Society Species List

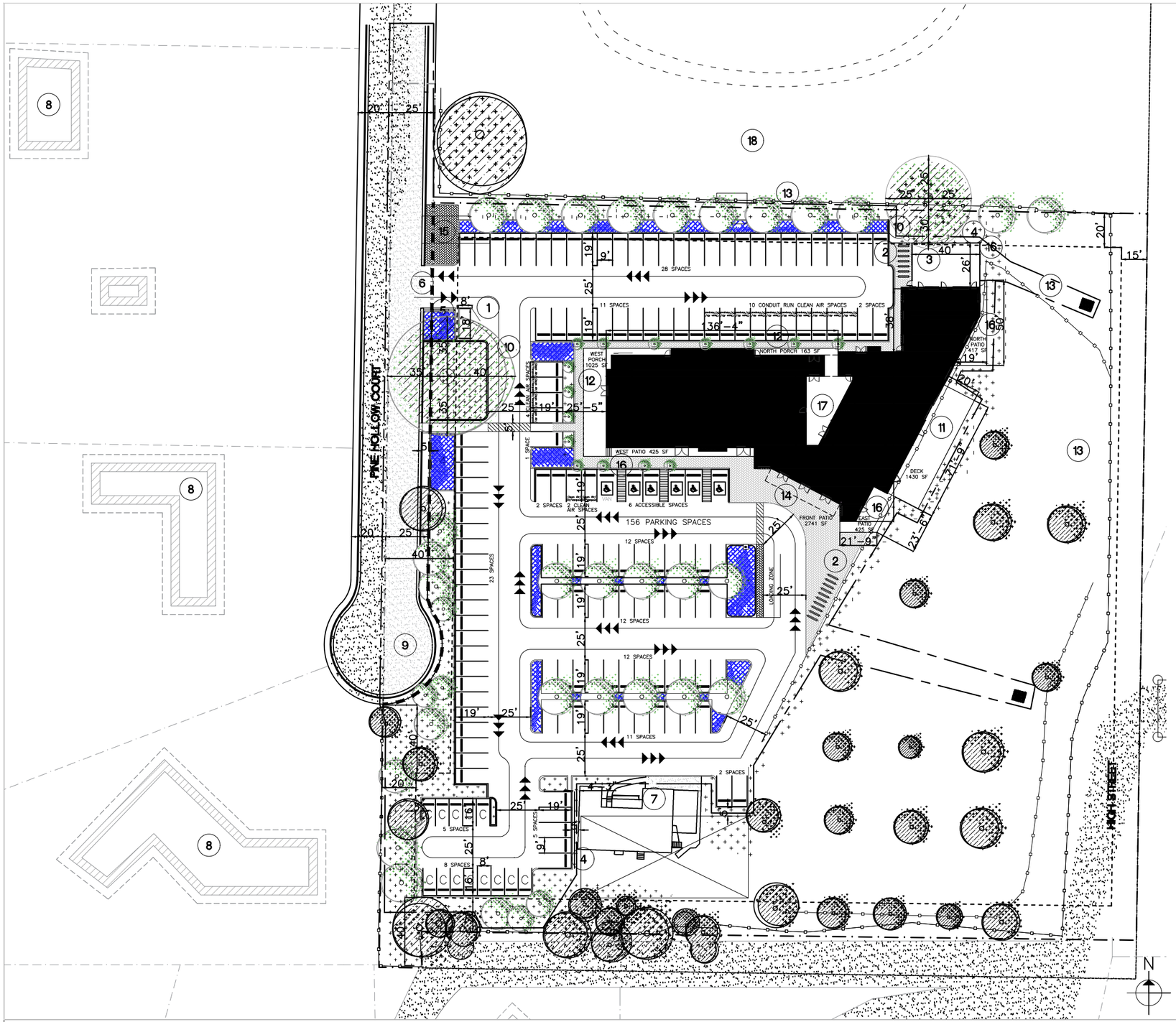
Attachment D. Locally-Rare Plant Species

Attachment E. Tree Inventory Map

Attachment F. Wildlife Species Observed within the Project Area

Attachment A

Site Plan



Sheet Notes:

1. Net parcel size:183,469 SF
   Gross parcel size:192,744 SF
2. Floor Area Ratio (FAR) is 14,243 SF /192,744 SF = 0.074 = 7.4 %
3. Allowable building area: 35% of 183,469 SF = 64,214 SF
   Proposed building area: 14,243 SF.
   - Design Height 21'-0"
   - Number of stories: 1
4. Bicycle parking racks 17 (Clayton Municipal Code 17.37.040)
5. Parking Stalls Required: 152
   Parking Stalls Provided: 156
   Specifics:
   - 6 Accessible Stalls (Including 1 Van Stall) (CA Building Code, Part 2,Vo.1 Table 11B-208.2)
   -13 Compact stalls (Clayton Municipal Code17.37.080)
   -16 Marked with 'Clean Air / EV / Vanpool'
   > 10 of the 16 have conduit run for future EV
   -121 Car Stalls
   Total: 156 Stalls

Keynotes:

1. Trash Enclosure
2. Bicycle Rack
3. Playground
4. Wooden Fence
5. Sign
6. Curb cut for driveway
7. Existing house to remain
8. Single family home
9. Expanded road, see civil drawings
10. Protected tree
11. Wooden Deck
12. Porch
13. Existing fence to remain
14. Main entrance canopy
15. Public Plaza with benches and stamped concrete
16. Patio
17. Courtyard
18. Elementary School

Legend:

- New landscape
- Concrete
- Bioretention, see Civil drawings
- Asphalt
- Existing Asphalt
- Current property line that won't change
- Current property line that will change
- New property line
- Limit of Work

Setbacks
40' offset from front
20' offset from north
20' offset from south
15' offset from back

- Existing Tree
- New tree
- Existing fence to remain

Drawing is only to scale when printed at 11"x17"

PLANNING DEPARTMENT SUBMITTAL

EPIC

1027 PINE HOLLOW CT, CLAYTON
CLAYTON COMMUNITY CHURCH
11/13/2020

SITE PLAN
PAGE A-01
SCALE 1/64"=1'-0"

Attachment B

USFWS IPaC Species List

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Contra Costa County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

San Joaquin Kit Fox Vulpes macrotis mutica — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2873

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened
Giant Garter Snake Thamnophis gigas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS

Delta Smelt Hypomesus transpacificus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
San Bruno Elfin Butterfly Callophrys mossii bayensis There is **proposed** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Antioch Dunes Evening-primrose Oenothera deltoides ssp. howellii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5970	Endangered
Large-flowered Fiddleneck Amsinckia grandiflora There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5558	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch Carduelis lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30

Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

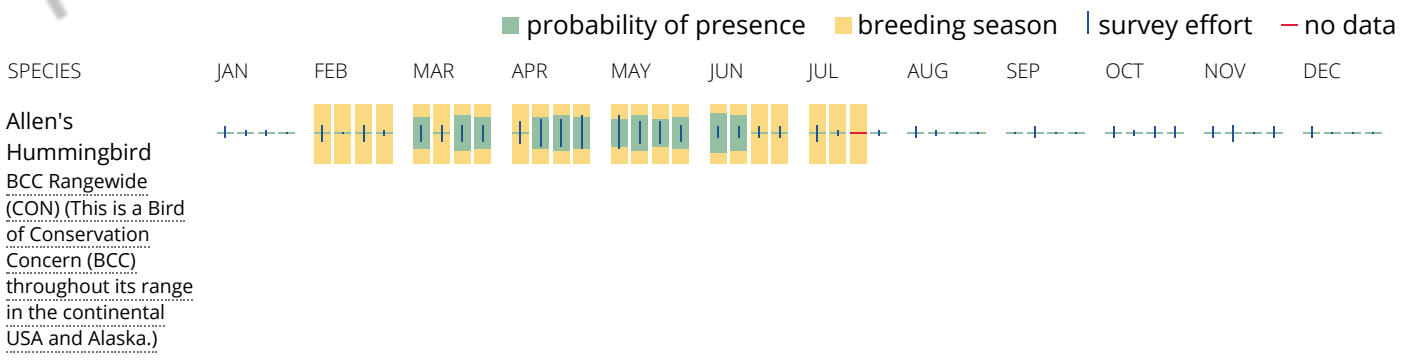
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

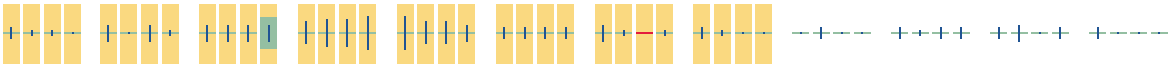
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

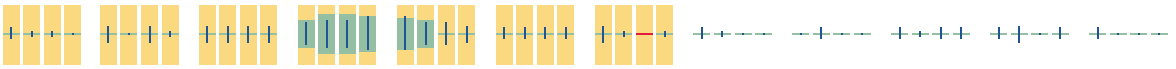
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



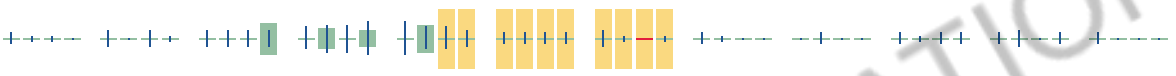
Bald Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



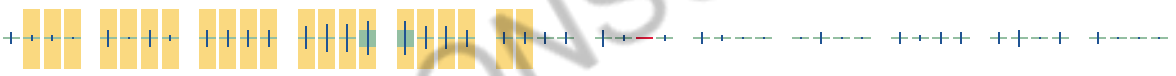
California Thrasher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



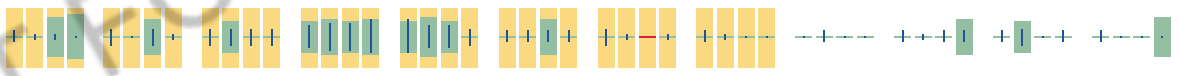
Common Yellowthroat
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



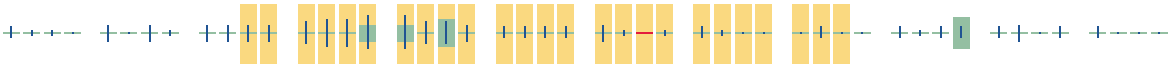
Costa's Hummingbird
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Lewis's Woodpecker
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Oak Titmouse
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

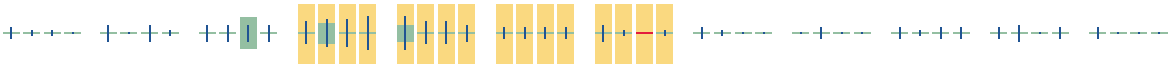
Rufous Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Song Sparrow
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Spotted Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Wrentit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow-billed Magpie
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment C

California Native Plant Society
Species List

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

74 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3812211, 3812118, 3812117, 3712281, 3712188, 3712187, 3712271 3712178 and 3712177;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Amsinckia grandiflora	large-flowered fiddleneck	Boraginaceae	annual herb	(Mar)Apr-May	1B.1	S1	G1
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5?T3T4
Anomobryum julaceum	slender silver moss	Bryaceae	moss		4.2	S2	G5?
Arabis blepharophylla	coast rockcress	Brassicaceae	perennial herb	Feb-May	4.3	S4	G4
Arctostaphylos auriculata	Mt. Diablo manzanita	Ericaceae	perennial evergreen shrub	Jan-Mar	1B.3	S2	G2
Arctostaphylos manzanita ssp. laevigata	Contra Costa manzanita	Ericaceae	perennial evergreen shrub	Jan-Mar(Apr)	1B.2	S2	G5T2
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
Atriplex coronata var. coronata	crownscale	Chenopodiaceae	annual herb	Mar-Oct	4.2	S3	G4T3
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	1B.1	S1S2	G1G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S2	G2
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	4.2	S3?	G3?
Campanula exigua	chaparral harebell	Campanulaceae	annual herb	May-Jun	1B.2	S2	G2
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2	S3S4	G4T4
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	1B.1	S1S2	G3T1T2

Chloropyron molle ssp. molle	soft bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Nov	1B.2	S1	G2T1
Cicuta maculata var. bolanderi	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	2B.1	S2?	G5T4T5
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	4.3	S4	G4
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Cordylanthus nidularius	Mt. Diablo bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Aug	1B.1	S1	G1
Cryptantha hooveri	Hoover's cryptantha	Boraginaceae	annual herb	Apr-May	1A	SH	GH
Delphinium californicum ssp. interius	Hospital Canyon larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S3	G3T3
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	1B.2	S2	G2
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Eleocharis parvula	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	4.3	S3	G5
Eriastrum ertterae	Lime Ridge eriastrum	Polemoniaceae	annual herb	Jun-Jul	1B.1	S1	G1
Eriogonum nudum var. psychicola	Antioch Dunes buckwheat	Polygonaceae	perennial herb	Jul-Oct	1B.1	S1	G5T1
Eriogonum truncatum	Mt. Diablo buckwheat	Polygonaceae	annual herb	Apr-Sep(Nov-Dec)	1B.1	S1	G1
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	Apr-Jun	4.3	S3	G3
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
Erysimum capitatum var. angustatum	Contra Costa wallflower	Brassicaceae	perennial herb	Mar-Jul	1B.1	S1	G5T1
Eschscholzia rhombipetala	diamond-petaled California poppy	Papaveraceae	annual herb	Mar-Apr	1B.1	S1	G1
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.2	S3	G3
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Galium andrewsii ssp. gatense	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	Apr-Jul	4.2	S3	G5T3
Grimmia torenii	Toren's grimmia	Grimmiaceae	moss		1B.3	S2	G2
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Hesperolinon breweri	Brewer's western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May	4.2	S3	G3
Isocoma arguta	Carquinez goldenbush	Asteraceae	perennial shrub	Aug-Dec	1B.1	S1	G1
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May	1B.1	S1	G1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	1B.2	S2	G5T2

Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	S2	G2
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	2B.1	S2	G4G5
Madia radiata	showy golden madia	Asteraceae	annual herb	Mar-May	1B.1	S3	G3
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	(Apr)May-Sep(Oct)	1B.2	S2	G2
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4
Monardella antonina ssp. antonina	San Antonio Hills monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	3	S1S3	G4T1T3Q
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
Navarretia gowenii	Lime Ridge navarretia	Polemoniaceae	annual herb	May-Jun	1B.1	S1	G1
Navarretia heterandra	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
Navarretia nigelliformis ssp. nigelliformis	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
Navarretia nigelliformis ssp. radians	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	1B.2	S2	G4T2
Neostapfia colusana	Colusa grass	Poaceae	annual herb	May-Aug	1B.1	S1	G1
Oenothera deltoides ssp. howellii	Antioch Dunes evening-primrose	Onagraceae	perennial herb	Mar-Sep	1B.1	S1	G5T1
Phacelia phacelioides	Mt. Diablo phacelia	Hydrophyllaceae	annual herb	Apr-May	1B.2	S2	G2
Plagiobothrys hystriculus	bearded popcornflower	Boraginaceae	annual herb	Apr-May	1B.1	S2	G2
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3	G4
Sanicula saxatilis	rock sanicle	Apiaceae	perennial herb	Apr-May	1B.2	S2	G2
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Senecio hydrophiloides	sweet marsh ragwort	Asteraceae	perennial herb	May-Aug	4.2	S3	G5
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2	G2T2
Streptanthus hispidus	Mt. Diablo jewelflower	Brassicaceae	annual herb	Mar-Jun	1B.3	S2	G2
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Triquetrella californica	coastal triquetrella	Pottiaceae	moss		1B.2	S2	G2
Tropidocarpum capparideum	caper-fruited tropidocarpum	Brassicaceae	annual herb	Mar-Apr	1B.1	S1	G1
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 28 July 2020].

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The California Lichen Society
California Natural Diversity Database
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The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

Attachment D

Locally-Rare Plant Species

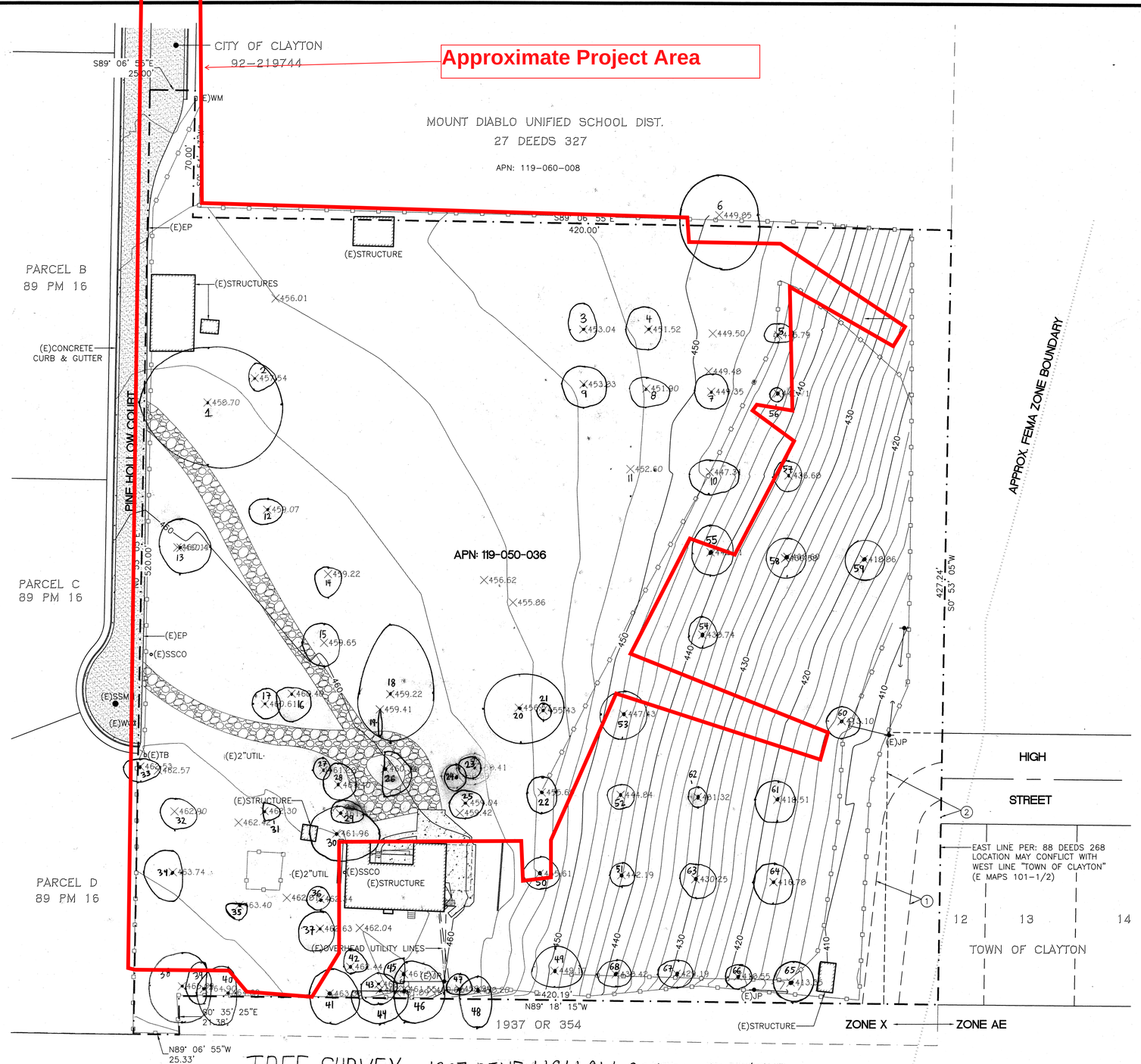
Scientific Name	common name	East Bay CNPS rarity rank	California rarity rank	habitat	elevation (Feet)	county	blooming period
Amsinckia tessellata var. tessellata	desert fiddleneck, devil's lettuce	A2	State Rank CEQA	Grs; Misc	164-7480	ALA, CCA	Feb-Jun
Androsace elongata subsp. acuta	California androsace	*A2	State Rank S3.2?(CEQA) State CNPS Rank 4.2 Global Rank G5?T3T4	DSlp; Grs	<3937	ALA, CCA	Feb-Apr
Astragalus didymocarpus var. didymocarpus	two-seeded milkvetch	A1	State Rank CEQA	Grs	<4429	ALA, CCA?	Feb-May
Blepharizonia plumosa	big tarplant	*A2	State Rank S1(CEQA) State CNPS Rank 1B.1 Global Rank G1	Grs; Scrb	<1640	ALA, CCA	Jul-Nov
California macrophylla	round-leaved filaree	*A2	State Rank S2(CEQA) State CNPS Rank 1B.1 Global Rank G2	Grs; Scrb	<3937	ALA, CCA	Mar-Jul
Castilleja ambigua subsp. ambigua	Johnny-nip	*A1	State Rank S3(CEQA) State CNPS Rank 4.2 Global Rank G4T3T4	CBlf; Grs	<1640	ALA?, CCA?	May-Aug
Centromadia parryi subsp. congdonii	Congdon's tarplant	*A2	State Rank S2(CEQA) State CNPS Rank 1B.2 Global Rank G4T2	Alk; Grs; Wtld	<984	ALA, CCA	Jun-Oct
Cicendia quadrangularis	timwort	A2	State Rank CEQA	Grs	<8858	ALA, CCA	Mar-May
Cirsium quercetorum	brownie thistle	A2	State Rank CEQA	Grs; Wdld	<1640	ALA, CCA	Apr-Aug
Cuscuta californica var. californica	California dodder	A1	State Rank CEQA	Chpl; Grs; Misc	<8202	ALA, CCA	May-Sep
Extriplex joaquinana	San Joaquin spearscale, San Joaquin saltbush	*A2	State Rank CEQA	Alk; Grs; Wtld	<1148	ALA, CCA	Apr-Sep
Gilia tricolor subsp. tricolor	birds-eye gilia	A2	State Rank CEQA	Grs	<3937	ALA, CCA	-
Gilia tricolor subsp. unknown	birds-eye gilia	A1?	State Rank CEQA	Grs		ALA, CCA	-
Lasthenia microglossa	small-ray goldfields	A2	State Rank CEQA	Chpl; Grs; Wtld; Wdld	<3281	ALA, CCA	Mar-May
Lasthenia minor	coastal goldfields, woolly goldfields	A1	State Rank CEQA	Grs	<2297	ALA, CCA	Mar-Jun
Malacothrix coulteri	snake's-head	A1	State Rank CEQA	Grs; Scrb; Snd	<4921	ALA, CCA?	Mar-May

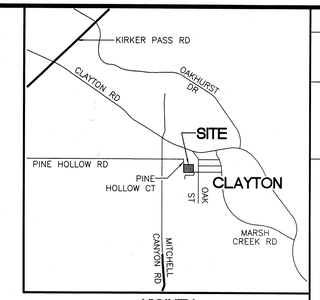
Micropus amphibolus	Mount Diablo cottonseed, Mt. Diablo cottonweed	*A1x	State Rank S3.2?(CEQA) State CNPS Rank 3.2 Global Rank G3	Grs; DSlp; Rck	131-2953	ALA	Mar-Jun
Microseris elegans	elegant microseris	A2	State Rank CEQA	Grs; VnPl	<2297	ALA, CCA	Apr-Jun
Minuartia californica	California sandwort	A1	State Rank CEQA	Chpl; Grs; DSlp; Rck; Snd; Serp	<4921	ALA, CCA	-
Muilla maritima	common muilla	A2	State Rank CEQA	Alk; Grs; Wtld; DSlp; Scrb; Serp; Wdld	<7546	ALA, CCA	Mar-Jun
Navarretia viscidula	sticky navarretia	A1	State Rank CEQA	FMsh; Grs; Snd; VnPl	328-2953	CCA	Jun-Jul
Pentachaeta alsinoides	tiny pentachaeta	A2	State Rank CEQA	Grs	<1804	ALA, CCA	Mar-Jun
Plagiobothrys fulvus var. campestris	field popcornflower, fulvous popcornflower	A2	State Rank CEQA	Grs; Gvl; Snd; Wdld	<1640	ALA, CCA	Mar-May
Ranunculus occidentalis var. occidentalis	western buttercup	A2	State Rank CEQA	Grs; Wdld	<4921	ALA, CCA	Mar-Jul
Sidalcea diploscypha	fringed checkerbloom, fringed sidalcea	A1	State Rank CEQA	Grs; Wdld	<2756	ALA, CCA	Apr-May
Tetrapteron graciliflorum	hill sun cup	A2	State Rank CEQA	Grs; DSlp; Scrb; Wdld	<2625	ALA, CCA	Mar-Apr
Tropidocarpum capparideum	caper-fruited tropidocarpum	*A1x	State Rank S1.1(CEQA) State CNPS Rank 1B.1 Global Rank G1	Alk; Grs	<1312	ALA?, CCA?	Mar-Apr
Tropidocarpum gracile	slender tropidocarpum	A2	State Rank CEQA	Alk; Grs	<4757	ALA, CCA	Mar-May
Vicia hassei	slender vetch	A2	State Rank CEQA	Grs; Scrb	<3937	ALA, CCA	Mar-May

Citation: Lake, Dianne: Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties [web application]. 2020 Berkeley, California: East Bay Chapter of the California Native Plant Society [a non-profit organization]. URL: https://ruspdb.ebcnps.org/cgi-bin/ebrare/ebrare.cgi (Accessed: Nov 17, 2020).

Attachment E

Tree Inventory Map





VICINITY

LEGEND

(E)	EXISTING
EP	EDGE OF PAVEMENT
JP	JOINT UTILITY POLE
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
TB	TELEPHONE BOX
WM	WATER METER
WV	WATER VALVE

EXISTING FENCE

RECORD PROPERTY LINE

EXISTING TREE

EXISTING AC PAVING

EXISTING CONCRETE

EXISTING GRAVEL

SURVEY NOTES

1) ELEVATIONS BASED UPON NAVD88 VERTICAL DATUM EXPRESSED IN US FEET. NGS BENCHMARK PID: DE8492 ELEVATION 412.9
2) CONTOUR INTERVAL: 2' VERTICAL
3) BOUNDARY AND EASEMENTS SHOWN HEREON BASED UPON PRELIMINARY TITLE REPORT DATED: MAY 24, 2012 FURNISHED BY CLIENT AND REPRESENTS RECORD LOCATION, SUBJECT TO FINAL BOUNDARY RESOLUTION ADJUSTMENT.
4) ALL FEMA RELATED INFORMATION SHOWN PER FIRM MAP NO. 06013C0308F – EFFECTIVE DATE JUNE 16, 2009.
5) COLOR ORTHO IS APPROXIMATE AND HAS BEEN PROVIDED FOR GENERAL INFORMATION.

EASEMENTS

(1) ROADWAY AND UTILITIES (1937 OR 354)
(2) SANITARY SEWER (2003-0190647)

TREE SURVEY - 1207 PINE HOLLOW COURT, CLAYTON, CA

BY	DESCRIPTION	DATE	APPR. BY CITY

DESIGNED BY: V.H.C.
DRAWN BY: R.C.E.
CHECKED BY: V.H.C.
SCALE: 1" = 30'

CUNHA ENGINEERING INC.
701 BELMONT WAY, STE. A
PINOLE, CALIFORNIA 94564
(510) 741-8290

APPROVED BY: R.C.E. No. DATE

CITY USE PERMIT SURVEY
CLAYTON COMMUNITY CHURCH
1027 PINE HOLLOW COURT
CLAYTON CALIFORNIA

SHEET NUMBER 1 OF 1 SHEETS
DRAWING NO. 216016

CUNHA ENGINEERING INC.

Attachment E

Wildlife Species Observed
within the Project Area

Wildlife Species Observed within the
Clayton Community Church Project Area
30 June 2020

Species Name	Common name
Birds	
Meleagris gallopavo	Turkey
Cathartes aura	Turkey vulture
Zenaida macroura	Mourning dove
Tyrannus verticalis	Western kingbird
Dryobates nuttallii	Nuttall's woodpecker
Melozone crissalis	California towhee
Mimus polyglottos	Northern mockingbird
Sturnella neglecta	Western meadowlark
Carpodacus mexicanus	House finch
Mammals	
Spermophilus beecheyi	California ground-squirrel