

AIRPORT PROPERTY COMMERCIAL CENTER HOTEL PROJECT BIOLOGICAL EVALUATION CLEARLAKE, LAKE COUNTY, CALIFORNIA

Prepared by

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., (LOA) conducted an investigation of the biological resources of the Airport Property Commercial Center Hotel and extension of 18th Avenue project ("Project Site", "Site") in Lake County, California.

LOA evaluated likely impacts to biological resources resulting from development of an approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18th Avenue. The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53. On July 11, 2022, Live Oak Associates (LOA) conducted a site visit to assess for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

The Project Site consists of developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage habitat types. The drainage is outside of the development area and will not be impacted. The Project Site provides suitable habitat for nine locally occurring special-status plant and four special-status animal species. These nine plant species include the bent-flowered fiddleneck, Raiche's manzanita, three-fingered morning-glory, deep-scarred cryptantha, Tracy's eriastrum, San Joaquin spearscale, congested-headed hayfield tarplant, Napa bluecurls, oval-leaved viburnum. Rare plant surveys are recommended during the appropriate blooming periods of these plants (March, April, June, and October).

Potentially suitable habitat was found for four special status animal species that potentially occur as regular foragers or residents of the Project Site. These include the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. Additionally, we have provided mitigation measures for nesting migratory birds and raptors protected by the federal Migratory Bird Treaty Act.



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1 INTRODUCTION

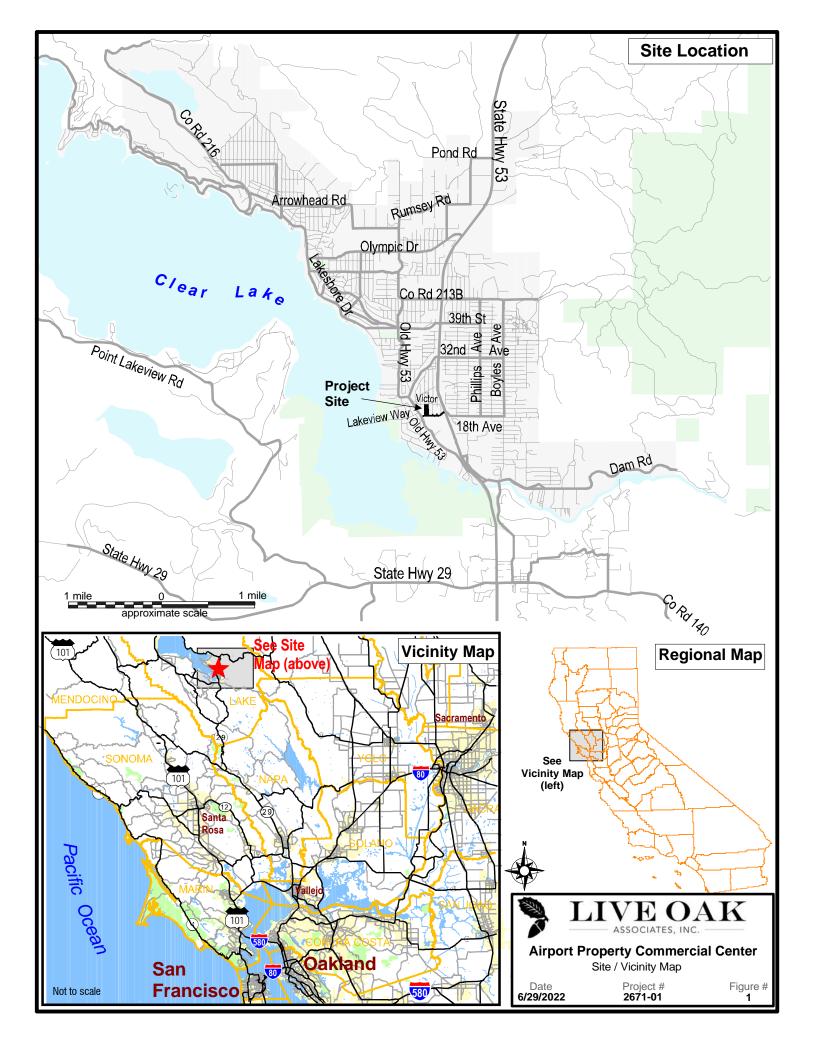
Live Oak Associates, Inc. (LOA) has prepared the following report. This report describes the biotic resources of the proposed approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18th Avenue ("Project Site, site") and evaluates likely impacts to biological resources resulting from the construction of a hotel and associated roadway on the project site.

The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53 (Figure 1). The Project Site is located within the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) 7.5-minute quadrangle.

The project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats. There are no buildings, sheds, or other structures on the project site.

1.1 PROJECT DESCRIPTION

The proposed project is the extension of 18th Avenue westward from Highway 53 to the hotel site and the development of a 79-room hotel and associated parking lot. The northernmost area of the property is not proposed to be developed at this time; however, we have included the entire parcel in this report should additional development become necessary. This project is associated with the future Airport Property Commercial Center project.





1.2 REPORT OBJECTIVES

The development of land can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of Clearlake. This report addresses issues related to: 1) sensitive biotic resources occurring within the Project Site; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies, and the requirements of the California Environmental Quality Act (CEQA). As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources, based on a review of the literature, a search of species databases, and field surveys conducted by LOA over the entire Project Site;
- In addition to species observed to be present within the Project Site, make reasonable inferences about the other biological resources that could occur onsite based on habitat suitability and the proximity of the Project Site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to development of Solar project within the Project Site;
- Identify and discuss project impacts to biological resources likely to occur within the Project
 Site within the context of CEQA or any state or federal laws; and
- Identify avoidance and mitigation measures that would reduce impacts to a less-thansignificant impact (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the Project Site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base*



(CDFW 2022), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022), and (3) manuals, reports, and references related to plants and animals of the Lake County region. Field survey of the Project Site was conducted on July 11, 2022, by LOA ecologists Colleen Del Vecchio and Katrina Krakow. During this site visit, the principal land uses of the site were identified, and the constituent plants and animals were noted.

Detailed surveys for sensitive biological resources were not conducted during the site visit, except a tree inventory which has been included in the attached arborist report.



2 EXISTING CONDITIONS

2.1 PROJECT SITE

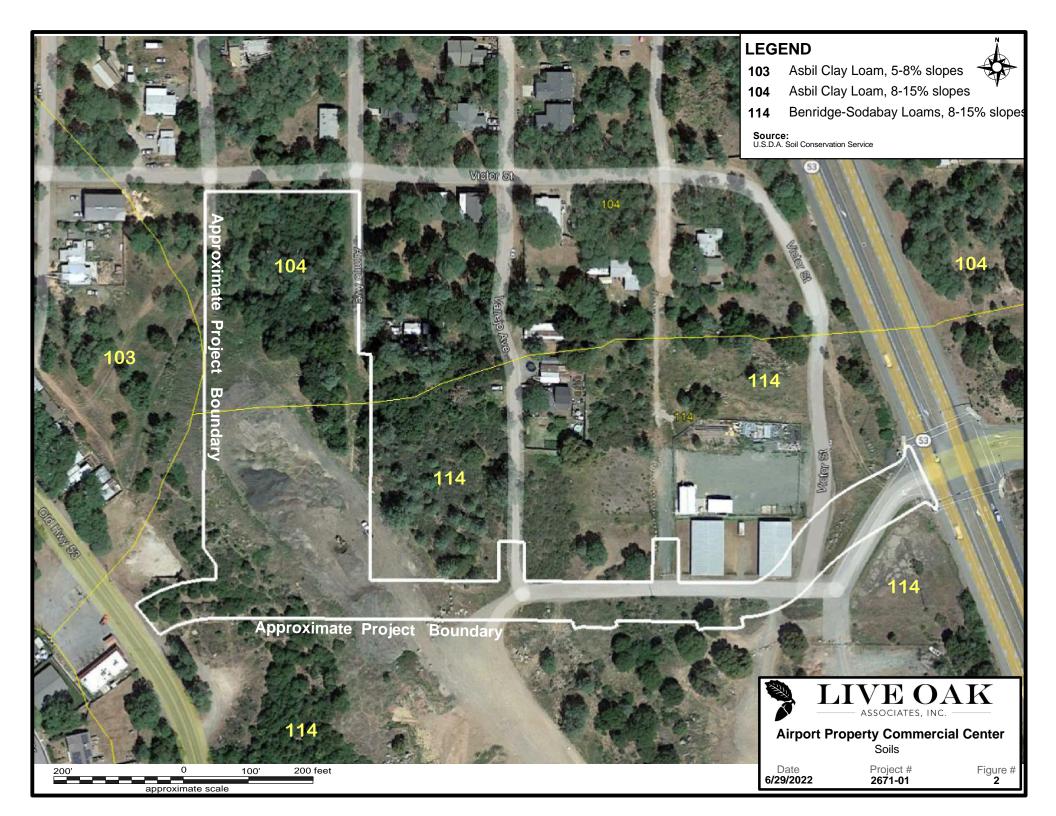
The approximately 0.3-acre Project Site and its associated roadway extension is located between Old Highway 53 and Highway 53 in the City of Clearlake. The Project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The project site is in the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) quadrangle. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats.

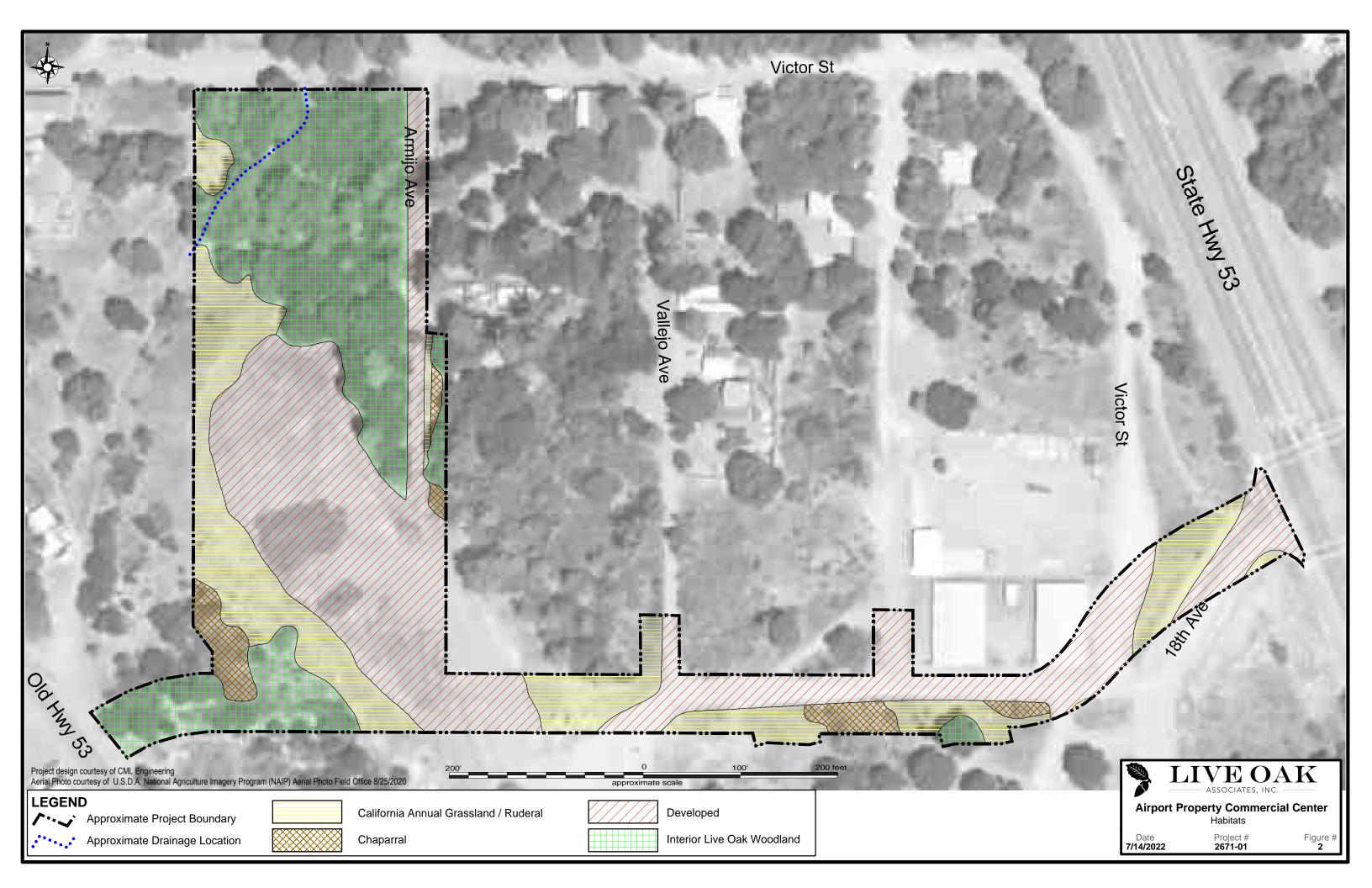
The Project is a hotel with parking lot as well as the extension of 18th Avenue from Highway 53 to the hotel.

Two soil types occur on the Project Site: 1) Asbill clay loam, 8 to 15 percent slopes and 2) Benridge-Sodabay loams, 8 to 15 percent slopes (NRCS Web Soil Survey 2022; Figure 2). Both soils are well drained with medium to rapid runoff and moderately slow to permeability. These soils are not considered hydric or edaphic.

2.2 BIOTIC HABITATS/LAND USES

Five biotic habitats and land uses were identified on the project site, these include developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage (Figure 3). These habitats are discussed in more detail below.







2.2.1 Developed

This land use on the site consists of 18th Avenue, some outbuildings, and a gravelly area with piles of ground gravel/asphalt around the exterior. Vegetation within this habitat is limited to non-native invasive herbaceous annual plants which are consistent with the California annual grassland/ruderal habitat type (Section 2.2.2).

Animal species observed in this habitat was limited to a western gray squirrel (*Sciurus griseus*). This habitat is most likely used by animals occurring in adjacent habitats to move through the larger, more suitable habitat areas.

2.2.2 California annual grassland/Ruderal

Portions of the site support California annual grassland; some areas are more ruderal than others, as this habitat type consists mainly of non-native invasive species and included jointed goat grass (Aegilops cylindrica), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), yellow star-thistle (*Centaurea solstitialis*), blue wild-rye (*Elymus glaucus*), yerba santa (*Eriodictyon californicum*), Narrow tarplant (*Holocarpha virgata*)Indian tobacco (*Nicotiana quadrivalvis*), European black nightshade (*Solanum nigrum*), red sandspurry (*Spergularia rubra*), clover (*Trifolium* sp.), Ithuriel's spear (*Triteleia laxa*), vetch (*Vicia* sp.), and other non-native invasive species were present in this habitat.

As this habitat is patchy on the landscape, it can be expected to be used by animal species occurring in adjacent habitats.

2.2.3 Chaparral

Chaparral habitat is scattered and consists mainly of chamise (*Adenostoma fasciculatum*) with some ceanothus (*Ceanothus* sp.) and poison-oak (*Toxicodendron diversilobum*) as well as an understory consisting mainly of non-native invasive grasses, and Yerba santa.

Animal species observed were limited to the western fence lizard (*Sceloporus occidentalis*) and California scrub jay (*Aphelocoma californica*). Species using adjacent habitats would also use this habitat.



2.2.4 Interior Live Oak Woodland

A large portion of the site supports interior live oak woodland dominated by interior live oak (*Quercus wislizeni*) with a large percentage of foothill pines (*Pinus sabiniana*). Other vegetation in this habitat includes blue oak (*Quercus douglasii*), white oak (*Quercus alba*), elderberry (*Sambucus nigra*), plum (*Prunus sp.*), poison-oak, western redbud (*Cercis occidentalis*), toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos sp.*), ceanothus (*Ceanothus sp.*), hollyleaf redberry (*Rhamnus ilicifolia*). The understory included largely non-native invasive annual plant species with the addition of honeysuckle (*Lonicera sp.*).

Animal species observed in this habitat type include the mourning dove (*Zenaida macroura*), Eurasian collared dove (*Streptopelia decaocto*), acorn woodpecker (*Melanerpes formicivorus*), California scrub jay, northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), American goldfinch (*Spinus tristis*), western fence lizard, and western gray squirrel.

2.2.5 Drainage

A drainage occurs in the northwestern corner of the site with culverts running under the road to the north of the site. This drainage was dry at the time of the July 2022 site visit. The drainage has a flat bottom with fairly steep sides, suggesting a large volume of seasonal flow. The width of the drainage varied from approximately 12 feet wide at the northern boundary of the site to approximately five feet wide where it exits the site on the western side of the parcel. The banks supported upland vegetation consistent with the woodland and grassland adjacent to it. Based on aerial imagery and the National Wetlands Inventory (USFWS accessed 2022), this unnamed drainage appears to be a tributary of Cache Creek which is connected to Clear Lake.

This drainage may have the potential to support aquatic species seasonally, depending on seasonal water flow levels.

2.3 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically



associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks.

Regionally, the nearest area believed to provide for regional wildlife movement is Cache creek and its riparian habitat approximately a half-mile to the south of the site. Figure 16 of the Lake County Land Trust Conservation Priority Plan (Lake County Land Trust 2017/2018) identifies the project site location as being the along the northern edge of a structural connectivity corridor which appears to center around Cache Creek and upland habitat to the east of Clearlake.

The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

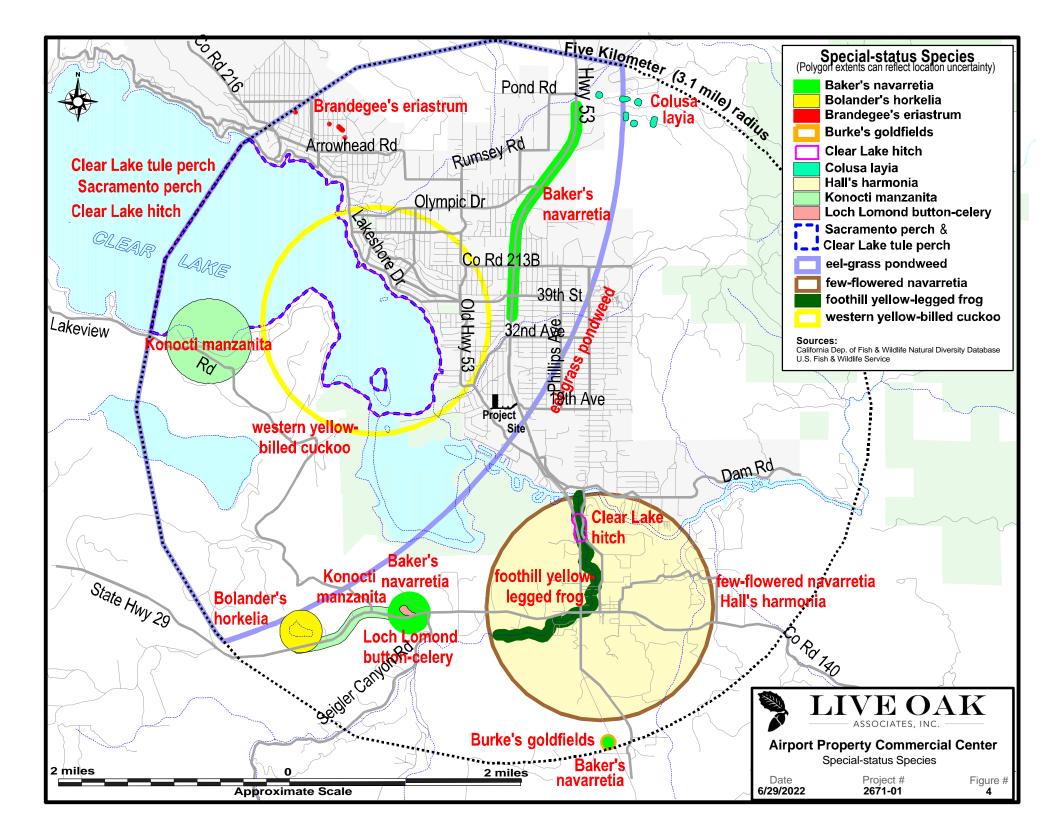
Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as "threatened" or "endangered" under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened,



or endangered (CNPS 2022). Collectively, these plants and animals are referred to as "special status species".

Several special status plants and animals occur in the vicinity of the Project Site (Figure 4). These species, and their potential to occur in the Project Site, are listed in Table 2 in the following pages. Sources of information for this table included *California Amphibian and Reptile Species of Special Concern* (Thomson et.al. 2016), *California Bird Species of Special Concern* (Shuford and Gardall 2008), *California Natural Diversity Data Base* (CDFW 2022), *Endangered and Threatened Wildlife and Plants* (USFWS 2022), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2022), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022). This information was used to evaluate the potential for special status plant and animal species to occur within the Project Site. It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database.

A search of published accounts for all relevant special status plant and animal species was conducted for the Clearlake Highlands and Lower Lake USGS 7.5-minute quadrangles within which the Project Site is located, and for the 10 surrounding quadrangles (Lucerne, Clearlake Oaks, Benmore Canyon, Wilbur Springs, Kelseyville, Wilson Valley, The Geysers, Whispering Pines, and Middletown) using the California Natural Diversity Data Base Rarefind 5 (2022).





PLANTS (adapted from CDFW 2022 and CNPS 2022)

Species status under the California Rare	e Plant Rank		
Common and scientific names	Status	General habitat description	*Occurrence in the study area
Raiche's manzanita Arctostaphylos stanfordiana Parry	CRPR 1B	Habitat: Coastal bluff scrub, cismontane woodland, and valley and foothill grasslands. Elevation: 3-500 meters. Blooms: Annual herb; March–June. Habitat: Occurs in chaparral and lower montane	Possible. Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site. Possible. At least one manzanita species is present on the site but could
ssp. raichei		coniferous forest openings. <u>Elevation:</u> 450-1,035 meters. <u>Blooms</u> : Perennial shrub; February-April.	not be identified to species as the survey occurred outside the blooming season. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Big-scale Balsamroot Balsamorhiza macrolepis var. macrolepis	CRPR 1B	Habitat: Occurs in chaparral, cismontane woodland, valley and foothill grassland, sometimes on serpentine Elevation: 45-1,555 meters. Blooms: Perennial herb; March-June.	Absent. This perennial species would have been observed on the site during the survey, if present, and it was not observed.
Three-fingered morning-glory Calystegia collina ssp. tridactylosa	CRPR 1B2	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 0-600 meters. Blooms: Perennial herb; April-June.	Possible. Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Pappose tarplant Centromadia parryi ssp. Parryi	CRPR 1B	Habitats: Often alkaline soils within chaparral, coastal prairie, meadows, seeps, marshes, swamps, and mesic valley and foothill grasslands. Elevation: 0-420 meters. Blooms: May-November.	Unlikely. Habitats of the site are marginal for this species and there are no known occurrences within three miles of the site.
Deep-scarred cryptantha Cryptantha excavate	CRPR 1B.1	Habitat: Occurs in gravelly and sandy cismontane woodland. Elevation: 100-500 meters. Blooms: April-May.	Possible. One senesced cryptantha species was tentatively identified on the site during the reconnaissance survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Tracy's eriastrum Eriastrum tracyi	CRPR 1B	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 315-1,125 meters. Blooms: Annual herb; May-July.	Possible. Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.



PLANTS (adapted from CDFW 2022 and CNPS 2022)

Common and scientific names Status General habitat description	Species status under the California Rare Plant Rank				
Scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils. Elevation: 1-835 meters. Blooms: Annual herb; April- October.			General habitat description	•	
playas, and valley and foothill grasslands on alkaline soils. Elevation: 1-835 meters. Blooms: Annual herb; April-October. Adobe-lily Fritillaria pluriflora CRPR1B.2 CRPR1B.2 CRPR 1B2 CRPR 1B3 CRPR 1B3 CRPR 1B3 CRPR 1B4 CRPR 1B4 CRPR 1B4 CRPR 1B5 CRPR 1B5 CRPR 1B6 CRPR 1B6 CRPR 1B7 CRPR 1B8 Abbitat: Occurs in valley and foothill grassland. Elevation: Valley an	San Joaquin spearscale	CRPR 1B	Habitat: Occurs in chenopod	Possible. Potentially suitable habitat is	
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CRPR 1B.2 Habitat: Occurs on adobe soils of chaparral, cismontane woodland, and valley and foothill grasslands, often on roadsides. Elevation: 20-560 meters. Blooms: April-November. Blooms: April-November. Blooms: April-November. Possible. Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site. Oval-leaved viburnum Viburnum ellipticum CRPR 2B			foothill grasslands on		
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Adobe-lily Fritillaria pluriflora CRPR1B.2 Habitat: Occurs on adobe soils of chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 60-705 meters. Blooms: Bulbiferous; February-April. Congested-headed hayfield tarplant Hemizonia congesta ssp. congesta CRPR 1B2 CRPR 1B2 CRPR 1B2 CRPR 1B2 CRPR 1B2 Absent. Suitable habitat is absent from the site for this species. Possible. Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site. Oval-leaved viburnum Viburnum ellipticum CRPR 2B CRPR 2B CRPR 2B CRPR 2B Habitat: Occurs in valley and foothill grasslands, often on roadsides. Elevation: 20-560 meters. Blooms: April-November. Possible. Suitable habitat is absent from the site and this species. Possible. Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site. Possible. Suitable habitat occurs on the site and the survey occurred outside of the blooming season for this species.			Blooms: Annual herb; April-	occurrence of this species on the site.	
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Viburnum ellipticum cismontane woodland, and lower montane coniferous site and the survey occurred outside of the blooming season for this species. A	Oval-leaved viburnum	CRPR 2B	Habitat: Chaparral,	Possible. Suitable habitat occurs on the	
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Elevation: 215-1400 meters. blooming season would need to be			Elevation: 215-1400 meters.		
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TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

Species Listed under the Threatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Clear Lake hitch	FT	Occurs in slow warm water	Unlikely. This species is unlikely to
Lavinia exilicauda chi		and is known to occur in	occur on the site, as the drainage
		Clear Lake and its larger	onsite lacks deep pools.
		tributaries.	
Steelhead -	FT	Spawn in freshwater rivers	Absent. This species is unlikely to occur
Central California Coast DPS		or streams in the spring and	on the site, as the drainage appears to
Oncorhynchus mykiss irideus		spend the remainder of their	be seasonal and lacks spawning habitat
		life in the ocean.	for this species.



Animals (adapted from CDFW 2022 and USFWS 2022)

Species Listed under theThreatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Foothill yellow-legged frog Rana boylii	CE	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools and ponds.	Absent. Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. This species is known from a larger tributary approximately a mile south of the site (CDFW 2022).
California red-legged frog Rana draytonii	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than 4.5°/o.	Absent. Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Bald eagle Haliaeetus leucocephalus	CE, CP	Breeding habitat is usually within 4 km of a water source in a tall tree or cliffs; roosting in large numbers in winter is common.	Absent. Although Clear Lake is within a mile from the site, large stick nests indicative of this species were not observed during the site visit. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Western yellow-billed cuckoo Coccyzus americanus occidentalis	FT, CE	Breed in large blocks of riparian habitats, particularly cottonwoods and willows.	Unlikely. Dense riparian habitat required by this species is absent from the Project Site. The closest recorded observation of this species is a proximity polygon centered approximately a mile to the west of the site along Clear Lake (CDFW 2022). Therefore, while this species is unlikely to breed on the site, it may occur from time to time on the site due to the proximity of the site to suitable habitat.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names Status General habitat description *Occurrence in the study area



Animals (adapted from CDFW 2022 and USFWS 2022)

State Sp	ecies of S	pecial	Concern
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Common and scientific names	Status	General habitat description	*Occurrence in the study area
Sacramento perch Archoplites interruptus	CSC	Occurs in sloughs, slow- moving rivers, and large lakes. They are not known	Absent. This species is known to occur in Clear Lake, however, is not known to occur in tributaries of the lake.
		from their historic range, and most known locations are locations where this species has been planted.	
		Less than 25 populations are known (CDFW species accounts).	
Clear Lake tule perch Hysterocarpus traskii pomo	CSC	Occurs in Clear Lake.	Absent. This species is restricted to Clear Lake and is therefore not expected to occur within the tributary onsite.
Clear Lake roach Lavinia symmetricus ssp.	CSC	Occurs in tributaries of Clear Lake in a slow-flow conditions ranging from fast- flowing water to slow water and can occur in intermittent streams and can deal well with low dissolved oxygen levels.	Possible. This species may occur within the drainage of the site when seasonal flows allow for it to occur.
California giant salamander Dicamptodon ensatus	CSC	Occurs in or adjacent to cold clear permanent to semi-permanent streams and seeps.	Absent. Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Red-bellied Newt Taricha rivularis	CSC	This species lays eggs in running water and can be found in coastal woodlands and redwood forest along the coast of northern California north of San Francisco except a small population occurring in the Steven's Creek watershed near the San Francisco Bay.	Absent. Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Western pond turtle Actinemys marmorata	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slowmoving water of rivers and creeks of central California with rocks and logs for basking.	Unlikely. Marginal habitat for the western pond turtle may occur onsite seasonably when the onsite drainage supports enough water, however, other tributaries with year-round water support higher quality habitat for this species. Additionally, this species has not been recorded within three miles of the project site.
Golden eagle Aquila chrysaetos	СР	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Unlikely. Suitable foraging habitat is poor onsite; additionally, breeding habitat is absent from the site and golden eagles have not been recorded within three miles of the site (CDFW 2022).



Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Purple martin Progne subis	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities, also in humanmade structures and nests widely in human-made birdhouses. Nests often located in tall, isolated trees or snags.	Unlikely. The trees of the site do not provide potential nesting habitat. These birds are known to nest near open water, the closest of which is Clear Lake approximately a mile away, however this species has not been recorded within a mile of the site (CDFW 2022). The purple martin may be expected to fly over or forage on the site from time to time.
Townsend's Big-eared bat Corynorhinus townsendii	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	Possible. Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Pallid bat Antrozous pallidus	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	Possible. Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Western red bat Lasiurus blossevillii	CSC	Roosts in tree or shrub foliage, although will occasionally use caves.	Possible. Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Ringtail Bassariscus astutus	СР	Occurs in riparian and heavily wooded habitats near water.	Unlikely. Riparian habitat along the drainage is marginally suitable for this species.

^{*}Explanation of Occurrence Designations and Status Codes

Present: Species observed within the Project Site at time of field surveys or during recent past.

Likely: Species not observed within the Project Site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed within the Project Site, but it could occur there from time to time.

Unlikely: Species not observed within the Project Site, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed within the Project Site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Fully Protected
CSC	California Species of Special Concern		
CC	California Candidate		
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more
1B	Plants Rare, Threatened, or Endangered in		information – a review list
	California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in		
	California, but more common elsewhere		



2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional discussion of these agencies' roles and responsibilities.

The site supports a drainage which is a tributary of Cache Creek, which may be a Jurisdictional Water.



3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant. According to 2021 CEQA Status and Guidelines (2022), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;



- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree
 preservation policy or ordinance; and
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community
 Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the CDFW and USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. To "take" a listed species, as defined by the state of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most bird species. The State of California signed Assembly Bill 454 into law in 2019, which clarifies native bird protection and increases protections where



California law previously deferred to Federal law. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.4 Jurisdictional Waters and Wetlands

Jurisdictional waters include waters of the United States subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE) and waters of the State of California subject to the regulatory authority of the California Department of Fish and Wildlife (CDFW) and the California Regional Water Quality Control Board (RWQCB).



3.2.4.1 Clean Water Act, Section 404

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Drainage channels and adjacent wetlands may be considered "waters of the United States" or "jurisdictional waters" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

The definition of waters of the U.S. have changed several times in recent years. In January 2020, the Environmental Protection Agency (EPA) and USACE jointly issued the Navigable Waters Protection Rule. The new rule was published in the Federal Register on April 21, 2020 and took effect on June 22, 2020.

On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the Navigable Waters Protection Rule. In light of this order, the EPA and USACE have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 regulatory regime defines waters of the U.S. as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- 2. All interstate waters including interstate wetlands;
- 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or



- b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- c. Which are used or could be used for industrial purposes by industries in interstate commerce:
- 4. All impoundments of waters otherwise defined as waters of the United States under this definition;
- 5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
- 6. The territorial sea;
- 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE under Section 404 of the Clean Water Act. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued without a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards (Section 3.6.2).

3.2.4.2 Porter-Cologne Water Quality Act/Clean Water Act, Section 401

There are nine Regional Water Quality Control Boards (RWQCB) statewide; collectively, they oversee regional and local water quality in California. The RWQCB administers Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders.

Pursuant to Section 401 of the Clean Water Act, the RWQCB regulates waters of the State that are also waters of the U.S. Discharges into such waters require a Section 401 Water Quality Certification from the RWQCB as a condition to obtaining certain federal permits, such as a



Clean Water Act Section 404 permit (Section 3.6.1). Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or a waiver of WDRs, from the RWQCB.

The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the 'waters of the State' to file a report of discharge" with the RWQCB. Waters of the State as defined in the Porter-Cologne Act (Water Code Section 13050[e]) are "any surface water or groundwater, including saline waters, within the boundaries of the state." This gives the RWQCB authority to regulate a broader set of waters than the Clean Water Act alone; specifically, in addition to regulating waters of the U.S. through the Section 401 Water Quality Certification process, the RWQCB also claims jurisdiction and exercises discretionary authority over "isolated waters," or waters that are not themselves waters of the U.S. and are not hydrologically connected to waters of the U.S.

The RWQCB also administers the Construction Stormwater Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Stormwater Program. A prerequisite for this permit is the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, stormwater, or other pollutants into a Water of the U.S. may require a NPDES permit.

3.2.4.3 California Fish and Game Code, Section 1602

The CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If the CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be



prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.5 Local Policies: City of Clearlake Native Tree Protection Ordinance

The City of Clearlake wishes to "ensure the preservation and protection of resources that cannot be replaced while also balancing the needs of commerce, industry and the human population within the City." As such, the Native Tree Protection Ordinance, Chapter 18, Section 40 of the City of Clearlake Municipal Code protects certain trees and requires an approved permit be obtained before disturbances "which might cause harm to a protected tree, are strictly prohibited within the Root Protection Zone (RPZ) of that tree". These disturbances include, but are not limited to:

- 1. Removing, moving or failing to install and maintain proper temporary protection fencing in the vicinity of construction prior to completion of on-site work;
- 2. Trenching;
- 3. Any permanent or temporary structures; however, temporary structures not fixed to the ground shall be allowed as long as they will not compact the soil;
- 4. Grading, cutting, filling or changing the natural grade in any way;
- 5. Installation of an irrigation system;
- 6. Covering with any substance impermeable to air and rain water, such as asphalt, concrete, plastic, etc.; however, pervious surfacing such as pavers, gravel, pervious asphalt or other such materials may be used to within one-half (1/2) the distance from the dripline of the tree to the trunk;
- 7. Burning, open fires or open flames;
- 8. Compaction of the soil;
- 9. Girdling; and/or
- 10. Topping. (Ord. #248-2020, S2 (Exh. A))

Chapter 18, Section 40.020 defines which trees are subject to permits for removal as follows:

- a. A native tree removal permit shall be required for the following, unless exempted under Section 18- 40.030:
- 11. Native oak trees with the following diameter at breast height (DBH):
 - a. Blue Oak (Quercus douglasii) greater than six (6") inch DBH;
 - b. Valley Oak (Quercus lobata) greater than six (6") inch DBH;



- c. Interior Live Oak (Quercus wislizeni) greater than six (6") inch DBH;
- d. California Black Oak (Quercus kelloggii) greater than six (6") inch DBH;
- e. Canyon Live Oak (Quercus chrysolepsis) greater than six (6") inch DBH;
- f. Oregon White Oak (Quercus garryana) greater than six (6") inch DBH.
- 12. Any other tree designated by the City Council as a "heritage tree" as described in Section 18-40.060. (Ord. #248-2020, S2 (Exh. A)).

3.3 PROJECT IMPACTS AND MITIGATION MEASURES

The Airport Property Commercial Center Hotel and the extension of 18th will develop a small amount of regionally available habitat to developed use. The northern portion of the parcel for the Hotel development, although covered by this report, is not currently planned for development, as such impacts to this area are not expected.

Project impacts to biological resources and mitigations are discussed below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Three special status plant species that occur, or once occurred, in the project vicinity are considered either absent from or unlikely to occur on the site due to a lack of suitable habitat, and/or because the species has not been observed in the site's vicinity, and/or because the species is a perennial and would have been identifiable during the time of year that the reconnaissance survey was conducted and it was not observed (see Table 1; Figure 4). These three species include the big-scale balsamroot, adobe-lily, and pappose tarplant.

However, nine special status plants cannot be ruled out as occurring on the site because habitats of the site are potentially suitable for these species and the survey occurred outside of the blooming period for these species. The latter special status plant species, along with their blooming period, include the bent-flowered fiddleneck (March – June), Raiche's manzanita (February – April), three-fingered morning glory (April – June), deep-scarred cryptantha (April – May), Tracy's eriastrum (May – July), congested-headed hayfield tarplant (April – November), Napa bluecurls (June – October), San Joaquin spearscale (April - October), and oval-leaved viburnum (May – June). Focused floristic surveys during the appropriate blooming season in all potentially suitable habitats for these species would be necessary to determine whether the



proposed project would impact any populations of these species. Should focused surveys determine populations of any of these species are present on the site, and if the project as proposed would impact these populations, this could be considered a potentially significant impact of the project.

Mitigation. As indicated above, there is the potential for special status plants to occur on the site. Floristic surveys should be conducted on the site in all habitats that potentially support special status species during the appropriate season to identify the species if it is present, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys should be conducted, i.e., in March, April, June, and October in all areas of the site within and adjacent to (within 100 feet) of project development footprints that provide potential habitat for the target species. These surveys should be conducted in conformance with the most recent version of CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* and CNPS' *Botanical Survey Guidelines*.

Should rare plant populations be determined present on the project site during the focused floristic surveys, the populations will be mapped and the number of individuals will be estimated. A qualified plant ecologist or botanist will determine whether project impacts to these populations are significant. If project impacts are determined to be significant, the following mitigation measures will be implemented to reduce impacts to a less-than-significant level.

Avoidance and Minimization Measures. To the extent practicable, the project should be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist.

Compensation Measures. If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures would include development of an onsite or off-site restoration plan for these species. At a minimum,



any restoration plan should contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan would need to be approved by the County prior to the start of project construction and should, where feasible, occur in the immediate vicinity of the identified population(s). The objective of this mitigation measure would be to replace the special status plants and habitat lost during project build-out. This and any other compensation (on- or off-site mitigation) for anticipated impacts should be consistent with local policies and ordinances, and any other regulations protecting these plant communities.

Implementation of the above measures is expected to reduce project impacts to a less-thansignificant level to any special status plant species that may occur on the site.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impacts. Of the 34 special-status animal species potentially occurring in the region, 22 species would be absent or unlikely to occur within the Project Site due to unsuitable habitat conditions or being outside the species' range. These include the Clear Lake hitch, Steelhead, Sacramento perch, Clear Lake tule perch, foothill yellow-legged frog, California giant salamander, red-bellied newt, California red-legged frog, western pond turtle, bald eagle, golden eagle, western yellow-billed cuckoo, purple martin, and ringtail. Construction of the project would have no effect on loss of habitat for these species because there is little or no likelihood that they are present.

An additional four species may regularly or occasionally utilize the Project Site for foraging, including the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. The Project Site does not provide regionally important foraging habitat for these species. Additionally, the drainage is not within the development area, therefore, fish habitat will not be impacted. Therefore, development of the project would result in a less-than-significant impact on these species.



The three bat species listed above, including the Townsend's big-eared bat, pallid bat, and California mastiff bat may forage over the site, however, roosting habitat is absent from the site for these species, as trees with suitable cavities and leaf density are absent from the site.

Mitigation. No mitigation is warranted for specific species; however, mitigation measures are provided below for raptors and migratory birds (Mitigation 3.3.3).

3.3.3 Disturbance to Active Raptor and Migratory Bird Nests

Potential Impacts. The Project Site provides potentially suitable nesting habitat for several migratory bird species, including raptors. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The trees, bushes, and ground of the site provide potential nesting habitat for these birds. If birds were to nest in these areas in the future prior to construction, such project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. To minimize construction disturbance to active raptor and migratory bird nests, the following measure(s) will be followed:

Mitigation 3.3.3a (Pre-construction surveys). If tree removal, site preparation, grading, or construction is planned to occur within the breeding period (i.e., between February 1 and August 31), a qualified biologist will conduct pre-construction surveys for active nests of migratory birds within 7 days of the onset of these activities. If construction activity is planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.

Mitigation 3.3.3b (*Establish Buffers*). Should any active nests be discovered in or near proposed construction zones, the biologist will establish a construction-free buffer around the nest. The buffer would be adequate to ensure the nest is not disturbed by construction activities and would be based on the location of the nest, species of bird, sensitivity of the bird



(as determined by the biologist), and proximity to and type of construction occurring near the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so.

Mitigation 3.3.3c (Tailgate Training). All construction and operations workers on the project site shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck.

Implementation of the above measures would ensure that construction of the project would have no impact on nesting raptors and migratory birds and that the project would follow state and federal laws protecting nesting birds.

3.3.4 Impacts to Wildlife Movement Corridors

Potential Impacts. The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

Impacts to movement corridors for local wildlife are less-than-significant.

Mitigations. Mitigation for impacts to wildlife movements is not warranted.

3.3.5 Impacts to Jurisdictional Waters, Wetlands, or Riparian Habitats

Potential Impacts. The only hydrologic feature occurring within the study area is the drainage that cuts through the northwestern corner of the site; this drainage is a tributary of Cache



Creek and is likely considered to be a water of the U.S. and/or water of the State. However, the development area will avoid this feature completely, therefore, impacts to jurisdictional waters, wetlands, or riparian habitats are not expected to occur.

Mitigation. Mitigation measures are not warranted.

3.3.6 City of Clearlake Native Tree Protection Ordinance

Potential Impacts. City of Clearlake has a tree protection ordinance to protect native oak trees. LOA ISA-certified arborist Colleen Del Vecchio (WE#11788A) conducted an arborist inventory and provided an arborist report, which is attached to this report as Appendix A. Development, as currently planned is expected to impact 52 trees protected under the ordinance. Replacement in Clearlake is conducted by planting trees onsite, off-site, or paying in-lieu fees to the City. The report outlines protection measures for remaining trees and more information regarding the 52 trees to be removed or otherwise impacted.

Mitigation. Trees removed will need to be either replaced onsite, off-site, or an in-lieu fee paid to the City.



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5 APPENDIX A: ARBORIST TREE INVENTORY AND ASSESSMENT FOR PROPOSED AIRPORT COMMERCIAL CENTER HOTEL PROJECT, CLEARLAKE, LAKE COUNTY, CALIFORNIA



August 8, 2022

Alan Flora City Manager, City of Clear Lake 14050 Olympic Drive Clearlake, CA 95422

Subject: Post-Fire Tree Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02)

Dear Mr. Flora,

This letter summarizes Live Oak Associates, Inc. (LOA) recommended post-fire tree assessment procedures. In July 2022, after LOA's arborist conducted a tree inventory and assessment at the proposed airport property commercial center hotel project, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. The steps below are recommended to determine the health status of each tree.

Post-Fire Survey Procedures

The following procedures are recommended to determine which of the protected trees will survive the July 2022 fire. The protected trees that survive and are then impacted by project activities, will need to be mitigated for. These methods will help determine which trees are alive. Protected trees within the vicinity of the project, but not needing to be removed, would require more long-term monitoring methods which are also described below.

Protected Trees Expected To Be Removed

Within 8 to 10 weeks of being impacted by fire, a tree's cambium can be checked to determine if a tree is dying or is living. In the short-term, this can be helpful for determining whether or not a tree is still alive and subject to mitigation. The method of checking a tree's cambium for health is recommended only for trees expected to be removed by the project. This method damages the tree's bark and should not be conducted on trees that will remain in place. If this method is to be used as a follow-up survey, the grading limit must be physically staked in the project site so not to confuse a protected tree that is being removed vs. a protected tree that requires protection measures and will remain in place.

SOUTH LAKE TAHOE



Protected Trees Expected To Remain

Protected trees expected to remain in place may require a hazard assessment if safety becomes a concern at the time of construction. This survey is optional. Since these trees will not be removed or potentially require mitigation, it is recommended that these trees are not assessed at the time of the tree expected to be removed. Instead, it is recommended that the tree protection measures remain the same (as stated in LOA's July 18, 2022 "Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project" report). Then, prior to construction starting when the tree protection measures are required to be checked by an arborist, if the client would like an assessment made for hazardous trees near the construction site, this would be the ideal time. To determine health for these trees, it is recommended at least one winter season has passed (2022-2023), and this timing does not correspond with the survey that can be conducted for trees expected to be removed.

Conclusion

Protected trees expected to be removed from project activities can be re-surveyed as early as October 1, 2022 to determine their health status. Trees not expected to be removed from project activities, but require tree protection measures, can be re-surveyed in spring 2023 at the earliest.

If you have any questions regarding this letter, please contact me at your earliest convenience. I may be reached by phone (559-642-4880) or e-mail (cdelvecchio@loainc.com).

Sincerely,

Colleen Del Vecchio

Ecologist & Arborist/Project Manager

Live Oak Associates, Inc.