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Biological Resource Assessment

Alpha Green Development Project
Assessor Parcel Number 067-0050-042
Sacramento, CA



Prepared for

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September 5, 2023

Executive Summary

Alpha Green Development and Construction (Client) plans to construct a Buddhist temple on a 10-acre lot, Assessor Parcel Number (APN) 067-0050-042 at 6225 Excelsior Road in the City of Sacramento, County of Sacramento, California. As lead agency, the County of Sacramento (County) requires an environmental assessment, including review of biological resources in the area, reconnaissance survey of the property, and preparation of a Biological Resources Assessment (BRA). The City will use this technical study in its review to approve the proposed Project. The Client has tasked Soar Environmental Consulting Inc. (Soar Environmental) to conduct the BRA in accordance with the California Environmental Quality Act (CEQA).

Soar Environmental prepared this BRA in support of California Environmental Quality Act requirements. The objectives of this Assessment were to: 1) provide a general characterization of biological resources for the property; 2) inventory plant and wildlife species; 3) evaluate the potential for federal or state listed plants and animal species afforded other special regulatory siteand local land use policies.

This BRA contains information about the biological resources within the Project area. Soar Environmental researched the California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, to compile a list of special-status species potentially present in the vicinity of the Project area. Soar Environmental researched specific species and habitat requirements for special-status species noted in the CNDDB, IPaC and CNPS databases and included species listing status, and proximal species observations in this report.

A Habitat Assessment was conducted on August 10, 2023, by a qualified biologist from Soar Environmental, emphasizing the search for listed species and the suitable habitat of those species. No special-status plant or wildlife species were observed in the Project area during the Biological Assessment. However, based on proximity of documented occurrences of special-status species from the data records search and Literature Review section of this report, it was determined that special-status species with potential to occur in the vicinity of the Project area include:

Wildlife Species with High Potential for Occurrence:

- Tricolored blackbird (*Agelaius tricolor*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Vernal pool tadpole shrimp (*Lepidurus packardi*)
- Western pond turtle (*Emys marmorata*)
- Western spadefoot toad (*Spea hammondii*)

Plant Species with Potential for Occurrence:

- Ahart's dwarf rush (*Juncus leiospermus* var. ahartii)
- Legenere (*Legenere limosa*)
- Sacramento Orcutt grass (*Orcuttia viscida*)

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1. Introduction

The proposed Project is to build a Buddhist temple on the eastern half of the Assessor Parcel Number (APN) 067-0050-042, a 10-acre agricultural parcel of land located at 6225 Excelsior Road, Sacramento, California. Soar Environmental developed this BRA in accordance with CEQA requirements. The Project site is located in an urban development area; however, the land is comprised of agricultural fields, shrub grassland, with gravel and natural surface roads throughout the property. Although there are hydrological features within or near the Project area, the site where the Buddhist temple is proposed to be built is within a 5-acre area on the east side of the parcel which is dominated by non-native annual grasses. A site plan for the project is shown in (**Figure 2**).

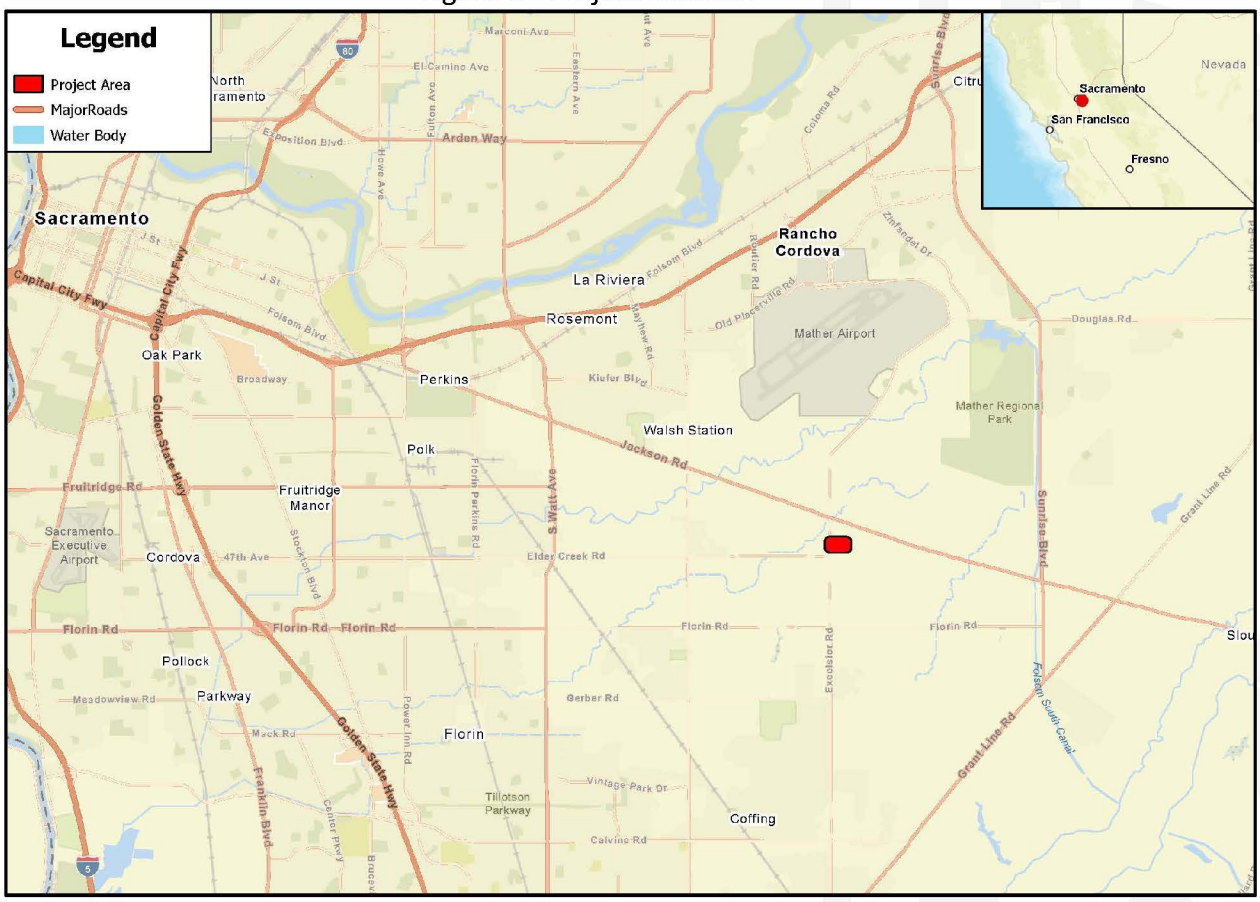
A review of California Natural Diversity Database (CNDDB), and United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), and California Native Plant Society (CNPS) Online Rare Plant Inventory was conducted to identify sensitive wildlife species and potential suitable habitats in the Project area. Results identified 26 special-status wildlife species, and 19 listed plant species potentially occurring in the area (**Tables 2 & 3**). A desktop analysis, and Habitat Assessment was conducted to evaluate potential presence and suitable habitats for the identified special-status species. Proximal locations of special-status species identified in the literature review are shown in (**Figure 4**)

A Habitat Assessment was conducted in the Project area on August 10, 2023, by Soar Environmental biologist Cherie Yang. The purpose of the Habitat Assessment Survey was to search for the suitable habitat conditions, or presence of special-status species that have historically been observed within, or surrounding, the Project area, as well as any other biological or environmentally sensitive resources. No special-status species were observed during the site visit, however limited suitable habitat for some wetland species is present within the Project area. Implementation of the Recommended Mitigation Measures in (**Section 6. Recommendations**) of this report would reduce the potential of adverse effects to vernal pool species from project activities.

1.1 Project Location

The Project Site is at 6225 Excelsior Road, in the City of Sacramento and the County of Sacramento, California; Assessor Parcel Number (APN) 067-0050-042. Located in the USGS 7.5-minute Quadrangle of Carmichael; in Township 8 North, Range 6 East, in the southwest quarter of section 26, between 109 feet and 121 feet of elevation. The Project Site is in a rural area approximately 0.40 miles south of California State Route (SR) 16, and 12 miles west of Deer Creek Hills Nature Preserve, and 5 miles south of the American River. (**Figure 1**).

Figure 1 - Project Location



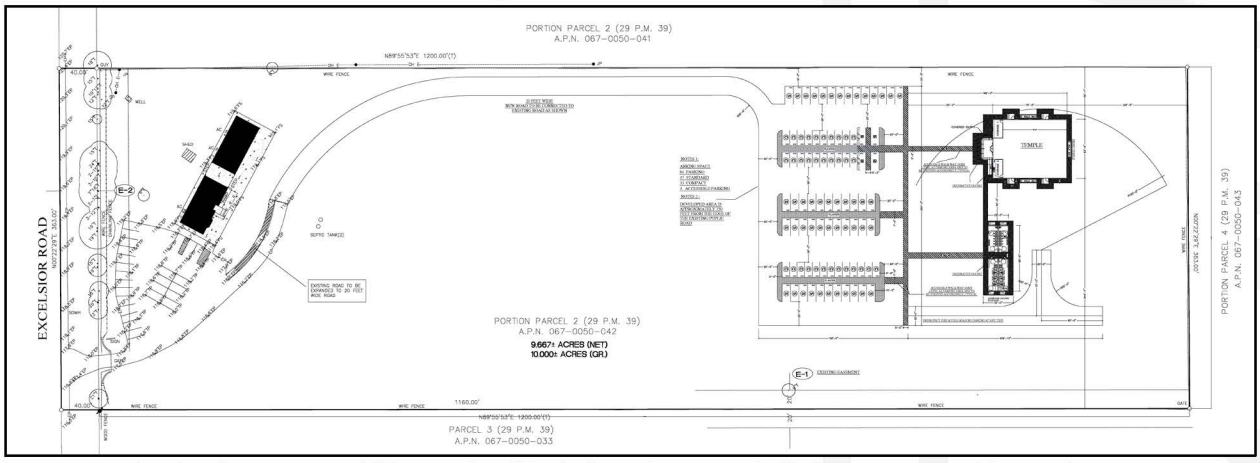
Project site located at: 6225 Excelsior Rd, Sacramento, CA 95829

1.2 Project Description

The proposed project plan is to build a Buddhist temple in the eastern half of the 10-acre parcel. A development plan and project description for the Project area will be prepared using this BRA as a planning tool for avoidance and minimization of impacts to sensitive biological resources. The new worship structure will be in the eastern half of the property and there will be no alteration to the emergent wetland along the middle of the southern boundary of the property, or drainage ditch

connected to it. The maximum area of impact is the 5-acre proposed construction area in the eastern half of the Project site. The proposed road leading to the temple extends from the current paved parking area, towards the north end of the lot and away from the freshwater emergent wetland. The site plan is shown in (**Figure 2**), with the full site plan and vicinity map shown in (**Appendix F**).

Figure 2 - Site Plan



Tentative site plan map: a Buddhist temple will be built on the eastern half of a 10-acre lot, with a maximum footprint of 5-acres.

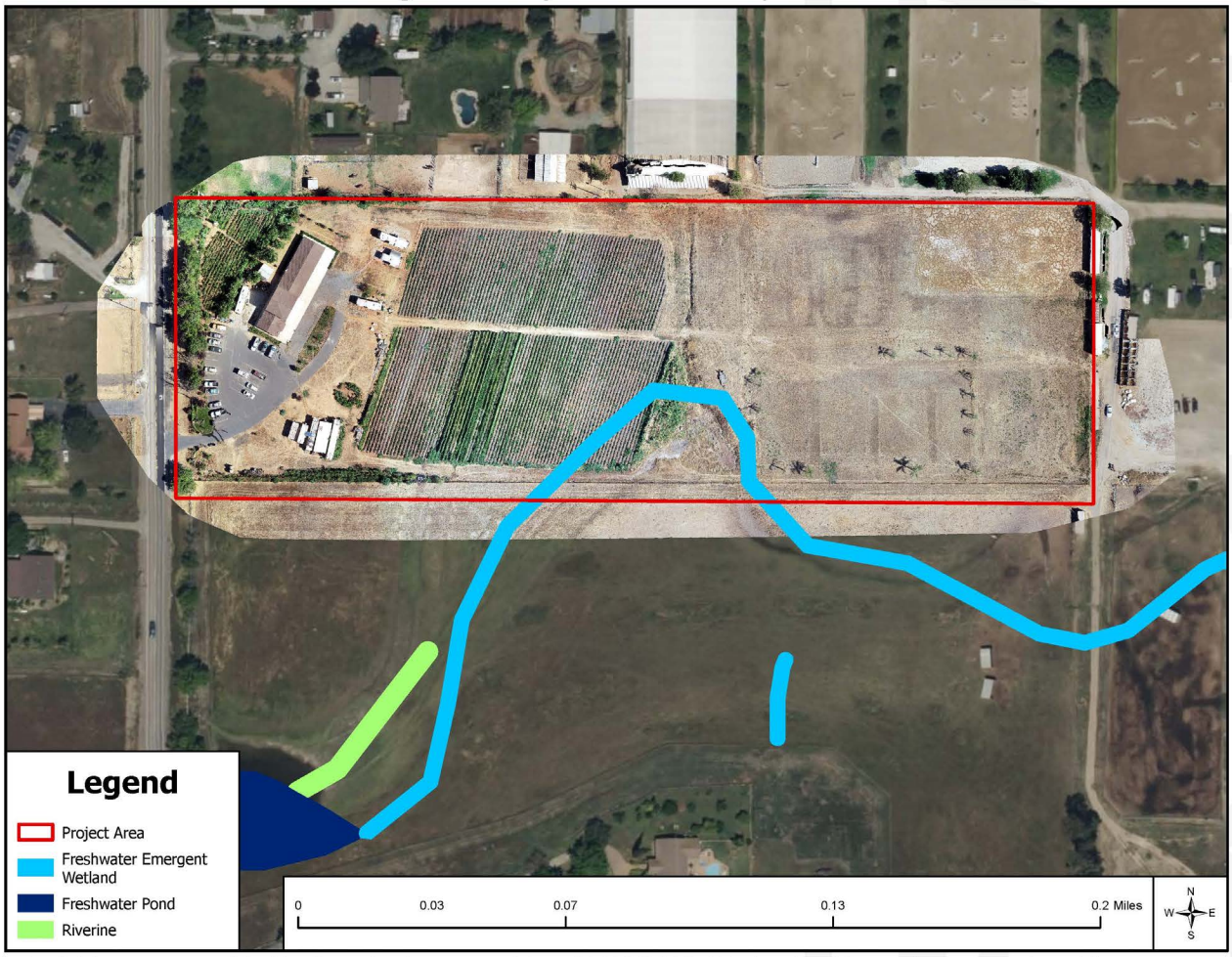
1.3 Environmental Setting

The Project is bounded by Excelsior Road to the west, a horse training facility to the north, developed private land to the east, and private land with similar habitat characteristics extending to the south. Topography is mostly flat between elevations of 109 feet to 121 feet. Morrison Creek and the former Mather Air Force Base (AFB) is approximately 2.41 miles north. The American River is approximately 5 miles north. The proposed Project is in an agricultural environment with current agricultural and livestock activity such as cattle, goats, horses, chickens, and row crops in the surrounding area. No irrigation canals were observed on the Project Site. There is a freshwater emergent wetland that extends approximately 194 feet across the middle of the southern boundary, with a buried culvert where the unpaved footpath crosses over. The east side of the property is mostly non-native grassland. There are three structures and a few mobile trailers on the west side of the property. Palm trees are sparsely scattered throughout the Project site, but there are very few trees that would provide adequate habitat for nesting birds. There are gravel and natural surface roads throughout the property.

The Project site is 10-acres of the following habitats: grassland, agriculture, developed, and freshwater emergent wetland habitat (**Table 1**). The dominant habitat is non-native grassland, predominantly found on the eastern side of the property where the temple is proposed to be built, and in patches throughout the property where the area is not developed. Row crops on the property include strawberries with a mix of other plants including Asian cucumber, green beans, and flowers. Barren ground can be found as unpaved foot paths through the agricultural fields; in the center of

the field, and on each of the four edges of the field. There is an emergent wetland encroaching through the middle of the southern boundary of the property which could provide suitable habitat for some aquatic species.

Figure 3 - Project Site Boundary



Aerial imagery provided by Soar Environmental Inc. 08/10/2023. Wetland habitat polygons retrieved from USFWS National Wetlands Inventory.

Table 1 – Habitat Type Acreage

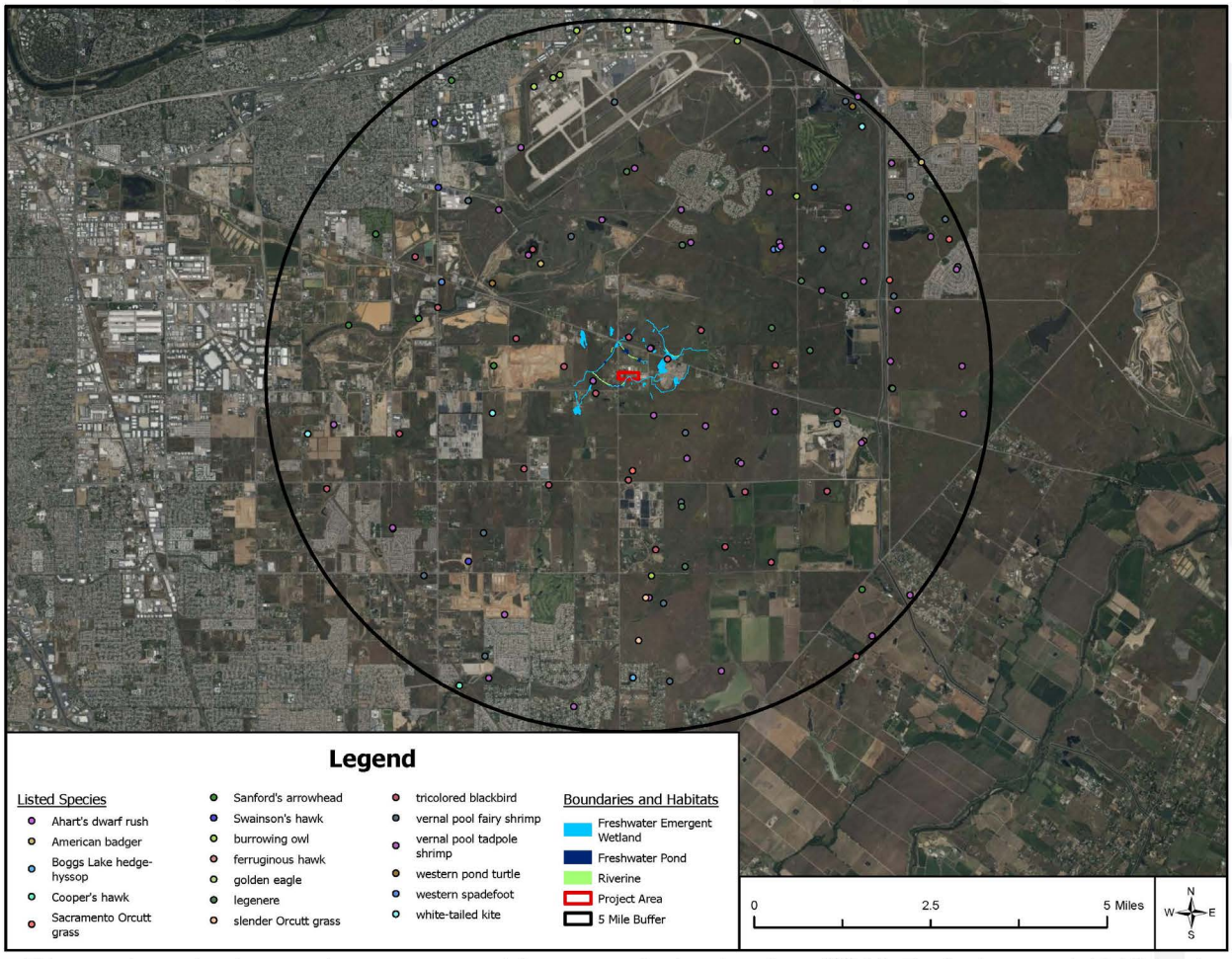
Habitat Type	Acres
Grassland	4.30
Agriculture	2.21
Developed	2.72
Wetland (freshwater emergent)	0.77
Total Acreage	**10.00**

2. Methods

2.1 Literature Review

On August 8, 2023, a records review of CNDDB, USFWS IPaC and CNPS Online Rare Plant Inventory was conducted to identify threatened or endangered species that could potentially occur in the vicinity of the Project area. The area covered by the CNDDB and CNPS data records search included the nine USGS 7.5-minute quadrangles of *Carmichael*, *Buffalo Creek, Citrus Heights, Elk Grove, Florin, Folsom, Rio Linda, Sacramento East,* and *Sloughhouse*. The area covered by IPaC is exclusive to the 10-acre Project area. From these sources, (**Tables 2 & 3**) were generated for wildlife species based on the search results including common and non-listed species, and for plant species including all levels of Plant List ranking. Proximal locations of special-status plant and animal species within 5 miles of the Project site are mapped in (**Figure 4**).

Figure 2 - Listed Species Locations Proximate to Project Site



This map shows the closest and most recent special-status species locations from CNDDB. The Project area is highlighted in red. Special-status species for which there are no regulatory implications (i.e., lack of suitable habitat, or no record of historical occurrences within 5 miles) are excluded from further analysis.

2.2 Field Reconnaissance Methodology

The Habitat Assessment is a diurnal, non-protocol survey. The purpose of the Habitat Assessment Survey was to search for the presence of special-status species or suitable habitat for special-status species that have historically been seen within, or surrounding, the Project area. The Habitat Assessment includes observation and noting the plant and wildlife species occurring in the Project site, the habitat suitability for the species named in the Literature Review, and conditions and habitat, including microhabitat, only observable from the ground level. The Habitat Assessment consists of walking the perimeter of the property and meandering transects throughout the Project area. During the walk, the surveyor searched for bird nests, possible small mammal dens, vegetation, searched for vernal pools and other signs of wildlife occupancy or its habitat. Survey efforts emphasized the search for special-status species and associated suitable habitats that had documented occurrences in the data records search of the CNDDB, IPaC, and CNPS databases. The biologist also surveyed the surrounding area by vehicle in accessible areas within 0.5 miles of the Project Site to look for biological resources and features that may be conducive for suitable habitat of the identified special-status species. During the surveys, the biologist collected photos of the Project boundaries and other points of interest depicting the habitat and potential biological resources (**Appendix A**). The Habitat Assessment was conducted on August 10, 2023, by a qualified biologist from Soar Environmental Inc.

3. Special-Status Species

Special-status plants and animals that have a reasonable possibility to occur in the Project area based on habitat suitability and requirements, elevation and geographic range, soils, topography, surrounding land uses, and proximity of known occurrences in the CNDDB, IPaC, and CNPS databases to the Project area are listed in (**Tables 2 & 3**). The likelihood for occurrence of special-status species was assessed using information from the various listed sources, as well as during wildlife and botanical surveys. Narratives are provided for species for which there are land use planning and regulatory implications (**Sections 3.1 & 3.2**). Special-status species for which there are no habitat features are excluded from consideration due to the lack of suitable habitat and distance of occurrences from the subject property.

Per Section 2.1 the results yielded 61 listed species: 26 wildlife and 19 plant species. An analysis of recent occurrences, habitat suitability and proximity within 5-miles to the Project site yielded 16 listed species with the potential to occur on the Project Site: 10 wildlife and 6 plant species.

The 10 wildlife species with potential to occur were either (1) observed by the surveyor during the Habitat Assessment or (2) observed recently within 5-miles per Section 2.1 and had suitable habitat on the Project site during the Habitat Assessment. Of these 16 wildlife species, 5 were determined to have low potential for occurrence, and 5 was determined to have a high potential for occurrence. The Habitat assessment was conducted during the blooming period for 3 of the special status plant species with potential to occur; Boggs Lake hedge-hyssop, Sanford's arrowhead, and, slender Orcutt grass All plants with high potential for occurrence are presumably extant within the Project Site and surveyed either (a) during the late blooming period or (b) outside the blooming

period. All other species named in the Literature Review were found to have no potential for occurrence and excluded from further analysis.

Wildlife Species with High Potential for Occurrence:

- Tricolored blackbird (*Agelaius tricolor*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Vernal pool tadpole shrimp (*Lepidurus packardi*)
- Western pond turtle (*Emys marmorata*)
- Western spadefoot toad (*Spea hammondii*)

Wildlife Species with Low Potential for Occurrence:

- Burrowing owl (*Athene cunicularia*)
- Golden eagle (*Aquila chrysaetos*)
- Swainson's hawk (*Buteo swainsoni*)
- White-tailed kite (*Elanus leucurus*)
- American badger (*Taxidea taxus*)

Plant Species with Potential for Occurrence:

- Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*)
- Boggs Lake hedge-hyssop (*Gratiola heterosepala*)
- Legenere (*Legenere limosa*)
- Sacramento Orcutt grass (*Orcuttia viscida*)
- Sanford's arrowhead (*Sagittaria sanfordii*)
- Slender Orcutt grass (*Orcuttia tenuis*)

Special-status species and sensitive habitats include plant and wildlife taxa, or other unique biological features afforded special protection by local land use policies, and/or state and federal regulations. Special-status plant and animal species are those listed as rare, threatened, or endangered under the state or federal Endangered Species Acts. Vegetation communities may warrant special status if they are of limited distribution, have high wildlife value, or are particularly vulnerable to disturbance. Listed and special-status species are defined as:

- Listed or proposed for listing under the state or Federal Endangered Species acts.
- Protected under other regulations (e.g., Migratory Bird Treaty Act).
- California Department of Fish & Wildlife (CDFW) Species of Special Concern.
- Listed as species of concern by CNPS or USFWS; and/or
- Receive consideration during environmental review under CEQA.

All species from the Section 2.1 search results are listed below including common and non-listed species. The analysis and following determination are based on Habitat Assessment results and the most recent occurrence and proximity to the Project site per Section 2.1 (Table 1, Table 2).

- **Present**: Species known to occur on the site, based on CNDDB records -**OR-** Species observed during the field survey -**AND-** suitable habitat is present.

- **High**: Species known to occur on or near the site (based on CNDDB records within 5 miles) and there is suitable habitat on the site.
- **Low**: Species is known to occur within 5 miles of the site, and there is marginal habitat onsite. -**OR**- Species are not known to occur within 5 miles of the site, but suitable habitat is present.
- **None**: Species are not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site. -**OR**- Species were surveyed during the appropriate season with negative results.

Table 2 - Potentially Occurring Listed Wildlife Species

Common/ Scientific Name	*Listing Status	Habitat Requirements	Potential for Occurrence
Amphibians			
California tiger salamander (*Ambystoma californiense*)	FT/ST/-	Grasslands, oak savannah riparian woodlands and lower elevations of coniferous forests, ditches, vernal pools, and wetlands.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Western spadefoot toad (*Spea hammondii*)	FE/-/SSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, wetland.	**High:** Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Birds			
Bank swallow (*Riparia riparia)*	-/ST/MBTA	Requires vertical banks and cliffs with fine textured sandy soils to dig nesting holes. Found near streams, rivers, lakes, or ocean.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Burrowing owl (*Athene cunicularia*)	-/-/SSC BCC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Golden eagle (*Aquila chrysaetos*)	-/-/FP BCC/MBTA	Found in broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.

		forest, pinon and juniper woodlands, upper montane coniferous forest, valley grassland and foothill grassland.	
Purple martin (*Progne subis*)	-/SSC/	Found in woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest are often located in tall, isolated tree or snags.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Song sparrow (*Melospiza melodia*)	-/SSC/	Prefers riparian, fresh or saline emergent wetland, and wet meadow habitats.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Swainson's hawk (*Buteo swainsoni*)	-/ST/ MBTA	Nests in isolated trees or riparian woodlands next to suitable foraging habitat such as agricultural fields and grasslands.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Tricolored blackbird (*Agelaius tricolor*)	-/ST/SSC BCC/MBTA	Found in areas near water, such as marshes, grasslands, and wetlands. They require some sort of substrate nearby to build nests.	**High:** Species known to occur on or near the site (based on CNDDB records within 5 miles) and there is suitable habitat on the site.
Western yellow-billed cuckoo (*Coccyzus americanus* occidentalis)	FT/SE/	Woodlands near streams or lakes, abandoned farmland, old fruit orchards, successional shrubland and dense thickets.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
White-tailed kite (*Elanus leucurus*)	-/FP/	Found in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.

Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)	-/SSC/	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often found along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	**None**: Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Fishes			
Green sturgeon (*Acipenser medirostris*)	FT/-/-	Found in aquatic estuary, marine bay, and the flowing waters of the Sacramento and San Joaquin region. This species has spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. There is presence in the upper Stanislaus and San Joaquin Rivers which may indicate spawning. Non-spawning adults occupy marine and estuarine waters.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Longfin smelt (*Spirinchus thaleichthys*)	-/ST/-	Estuaries and lakes. San Francisco Bay-Delta in California.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Sacramento splittail (*Pogonichthys macrolepidotus*)	-/SSC/-	This species is endemic to the lakes and rivers of the Central Valley but now confined to the Delta, Suisun Bay and associated marshes.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Steelhead (*Oncorhynchus mykiss irideus*)	FT/-/-	Freshwater, brackish, or marine waters of temperate zones. Productive streams have a good mixture of riffles and pools and overhanging vegetation for shade.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Invertebrates			
Conservancy fairy shrimp (*Branchinecta conservatio*)	FE/-/-	Inhabit large, cool-water vernal pools from early November to early April, which fill with water in the rainy season, then slowly dry up.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.

Crotch bumble bee (*Bombus crotchii*)	FT/SC/-	Grasslands and shrublands, with food sources; milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Monarch Butterfly (*Danaus plexippus*)	FC/-/-	Roosts found in wind protected tree groves such as eucalyptus, Monterey pine, and cypress, with nectar and water sources nearby.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT/-/-	Only occurs in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*), in riparian scrub	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT/-/-	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in valley foothills grasslands, vernal pools, and wetlands.	**High:** Species known to occur on or near the site (based on CNDDB records within 5 miles) and there is suitable habitat on the site.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE/-/-	Found in vernal pools (hardpan, duripan, or claypan) and grassland. Also found in pools commonly found in grass-bottomed or mud-bottomed swales.	**High:** Species known to occur on or near the site (based on CNDDB records within 5 miles) and there is suitable habitat on the site.
Mammals			
American badger (*Taxidea taxus*)	-/SSC/-	Uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Pallid bat (*Antrozous pallidus*)	-/SSC/-	Low elevations throughout California with the exception of the high Sierra Nevada from Shasta to Kern County, and the northwestern corner of the state from Del Norte and western Siskiyou County to northern Mendocino County.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.

		Habitats include grasslands, shurblands, woodlands, and forests from seal level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range.	
Reptiles			
Giant gartersnake (*Thamnophis gigas*)	FT/ST/-	Marshes, sloughs, drainage canals, irrigation ditches, and prefers locations with vegetation close to water for basking.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Western pond turtle (*Emys marmorata*)	-/-/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation. Found elevations below 6,000 feet. Needs basking sites and suitable upland habitat such as sandy banks or grassy open field within 0.5 kilometers from water for egg-laying.	**High:** Species known to occur on or near the site (based on CNDDB records within 5 miles) and there is suitable habitat on the site.

*Listing Status Notes:

Federal:
FE – Federally listed Endangered
FT – Federally listed Threatened
FC – Federal Candidate Species
FWL – USFWS Watch list
BCC – USFWS Bird of Conservation Concern
MTBA – Migratory Bird Treaty Act

State:
SE – State listed Endangered
ST – State listed Threatened
SC – State Candidate Species
SR – State Rare Species
SA – State Special Animal
FP – CDFW Fully Protected Species
SSC – CDFW Species of Special Concern

Table 3 - Potentially Occurring Listed Plant Species

Common/ Scientific Name	*Status Fed/CA/CNPS/ Bloom Period	Habitat Description	Potential for Occurrence
Ahart's dwarf rush (*Juncus leiospermus var. ahartii*)	-/-/1B.2 Mar-May	Valley and foothill grassland (mesic). Found at elevations between 100 and 750 feet.	**High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.

Alkali-sink goldfields (*Lasthenia chrysantha*)	-/-/1B.2 Feb-Apr	Vernal pools. Prefers alkaline habitat. Found at elevations between 35 and 1,100 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Boggs Lake hedge-hyssop (*Gratiola heterosepala*)	-/SE/1B.2 Apr-Aug	Clay marshes and swamps (lake margins), vernal pools. Found at elevations between 35 and 7,790 feet.	**High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*)	-/-/4.2 (Mar) May-Jul	Found in chaparral, cismontane woodland, and lower montane coniferous forest. Often found in road cuts. Found at elevations between 245 and 3,000 feet.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Dwarf downingia (*Downingia pusilla*)	-/-/2B.2 Mar-May	Valley and foothill grassland (mesic), vernal pools. Found at elevations between 5 and 1,460 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*)	-/-/1B.2 Mar-May	Found in vernal pools, valley grassland and foothill grassland. Prefers grassland and sometimes vernal pool edges. Often found in alkaline soils. Found at elevations between 5 and 655 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Hoary navarretia (*Navarretia eriocephala*)	-/-/4.3 May-Jun	Found in cismontane woodland, valley grassland and foothill grassland. Prefers vernally mesic sites. Found at elevations between 345 and 1,310 feet.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Hogwallow starfish (*Hesperevax caulescens*)	-/-/4.2 Mar-Jun	Found in valley grassland, foothill grassland and vernal pools. Prefers clay soils and mesic sites. Found at elevations between 0 and 1,655 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Legenere (*Legenere limosa*)	-/-/1B.1 Apr-Jun	Found in vernal pools at elevations between 5 and 2,885 feet.	**High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*)	-/-/4.2 May-Oct	Found in vernal pools, valley grassland and foothill grasslands. Prefers alkaline, vernally mesic seeps and	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.

		sometimes roadsides. Found at elevations between 0 and 330 feet.	
Peruvian dodder (*Cuscuta obtusiflora var. glandulosa*)	-/-/2B.2 Jul-Oct	Found in freshwater marshes and swamps. Prefers freshwater marsh. Found at elevations between 50 and 920 feet.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Pincushion navarretia (*Navarretia myersii ssp. myersii*)	-/-/1B.1 Apr-May	Vernal pools, often acidic. Found at elevations between 65 and 1,085 feet.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.
Sacramento Orcutt grass (*Orcuttia viscida*)	FE/SE/1B.1 Apr-Jul (Sep)	Vernal pools. Found at elevations between 100 and 330 feet.	**High**: Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Saline clover (*Trifolium hydrophilum*)	-/-/1B.2 Apr-Jun	Found in marshes, swamps, valley and foothill grassland, and vernal pools. Prefers mesic alkaline sites. Found at elevations between 0 and 985 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Sanford's arrowhead (*Sagittaria sanfordii*)	-/-/1B.2 May-Oct (Nov)	Found in marshes and swamps. Prefers to grow in standing or slow moving freshwater ponds, marshes and ditches. Found at elevations between 0 and 2,135 feet.	**High:** Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Slender Orcutt grass (*Orcuttia tenuis*)	FT/FE/1B.1 May-Sep (Oct)	Found in vernal pools. Often found in gravelly substrate. Found at elevations between 115 and 5,775 feet.	**High:** Species known to occur on or near the site (based on CNDDB records within 8 km or 5 mi) or there is suitable habitat on the site.
Stinkbells (*Fritillaria agrestis*)	-/-/4.2 Mar-Jun	Found in cismontane woodland, chaparral, valley and foothill grassland, and pinyon and juniper woodland. Sometimes found on serpentine, but mostly found in non-native grassland or in grassy openings in clay soil. Found at elevations between 35 and 5,100 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.

Valley brodiaea (*Brodiaea rosea* ssp. *vallicola*)	-/-/4.2 Apr-May (Jun)	Found in vernal pools, and swales in valley and foothill grassland. Prefers old alluvial terraces and silty, sandy and gravelly loam. Found at elevations between 35 and 1,100 feet.	**Low:** Species is known to occur within 5 miles of the site, and there is marginal habitat onsite.
Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*)	-/-/1B.2 Jun-Sep	Found in freshwater marshes and swamps. Prefers moist, freshwater-soaked river banks and low peat islands in sloughs. Can also occur on riprap and levees. Known from the delta watershed in California. Found at elevations between 0 and 395 feet.	**None:** Species is not known to occur on or within 5 miles of the site, and there is no suitable habitat for the species on the site.

*Listing Status Notes:
Federal:
FE – Federally listed Endangered
FT – Federally listed Threatened
FC – Federal Candidate Species
State:
SE – State listed Endangered
ST – State listed Threatened
SC – State Candidate Species
SR – State Rare Species

CRPR: California Native Plant Society Rare Plant Rank
CBR – Considered but Rejected
1B – Rare, threatened, or endangered in CA and elsewhere
2 – Rare, threatened, or endangered in CA but common elsewhere
4 – Limited distribution (Watch-list)

CRPR Extensions 0.1 – Seriously endangered in California
0.2 – Fairly endangered in California
0.3 – Not very endangered in California

3.1. Listed Wildlife Species Descriptions

Amphibians

3.1.1 Western spadefoot toad (*Spea hammondii*)

Western spadefoot toad is a federally listed endangered species, and State species of special concern. Their range spans throughout the Central Valley and adjacent foothills. They can be common where they occur. Elevations of occurrence extend from near sea level to 4,460 feet in the southern Sierra foothills (Jennings and Hayes 1994). This species occurs primarily in grasslands but occasionally appears in the valley-foothill hardwood woodlands or persists in orchard and vineyard habitats for a few years.

Western spadefoot toads spend most of the year underground in burrows up to 0.9 meters (36 inches) deep (Stebbins 1972). They construct their own burrows but have been seen infrequently using mammal burrows. Adult western spadefoot toads feed on insects, worms, and other invertebrates (Stebbins 1972). Tadpoles consume planktonic organisms and algae but are also carnivorous—preying and consuming dead aquatic larvae of other amphibians as well as other western spadefoot tadpoles (Bragg 1964).

Rainfall is important in the formation and maintenance of breeding ponds. Most surface movements by adults are associated with rain or high humidities at night. Breeding and egg laying happens exclusively in shallow temporary pools formed by heavy winter rains. Egg masses are attached to plant material or the upper surfaces of small, submerged rocks (Stebbins 1951). During dry periods, the moist soil inside the burrows provides water for absorption through the skin (Ruibal et al. 1969, Shoemaker et al. 1969). Dispersal of post metamorphic juveniles from breeding ponds can occur without rainfall.

According to CNDDB records the nearest occurrence of western spadefoot toad is approximately 2.61 miles northeast from the project site in 1997. Several western spadefoot toads were observed inhabiting 3 vernal pools within the former Mather Air Force Base complex. This species was not observed during the Habitat Assessment, however there is dispersal habitat for this species within the vicinity of the project site.

Birds

3.1.2 Burrowing owl (*Athene cunicularia*)

The burrowing owl is a state listed Species of Special Concern and a federally protected by the Migratory Bird Treaty Act of 1918 in the United States, Canada and Mexico. They are considered by the U.S. Fish and Wildlife Service (USFWS) to be a Bird of Conservation Concern (BCC). These small owls are between 7.5 to 10 inches tall with a wingspan of 21 to 24 inches (53-61 cm). They weigh between 4.5 to 9 ounces. Unlike most owls, burrowing owl males are slightly heavier than females and have a longer wingspan.

Burrowing owls typically breed from mid-March through August. If owls are nesting, the site must be avoided until the chicks have fledged or it has been determined the nest has failed. Chicks may appear at the burrow entrance when they are about 10 days old. Usually nesting in abandoned ground squirrel burrows, the nest chamber might be lined with excrement, pellets, debris, grass, feathers; sometimes unlined. General habitat includes open dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.

According to CNDDB records the nearest occurrence of burrowing owl is approximately 2.76 miles south from the project site in 2003. During this occurrence, a single burrowing owl was observed using a network of ground squirrel burrows approximately 0.36 miles east from the intersection of Excelsior Road and Gerber Road. This species was not observed during the Habitat Assessment however there is marginal habitat for this species on the Project site due to the lack of small mammal burrows.

3.1.3 Golden eagle (*Aquila chrysaetos*)

The golden eagle is a state listed Fully Protected species. They are uncommon, permanent residents, and migrants throughout California, except in the center of the Central Valley. They are more common in southern California than in the north. They can be found between 0 and 11,500 feet of elevation. Their habitat typically includes rolling foothills, open mountain slopes, cliff and rock outcrops, wide arid plateaus deeply cut by streams and canyons, sage-juniper flats, and desert.

This species feeds mostly on lagomorphs and rodents. They also take other mammals, birds, reptiles,

and some carrions. Their diet varies more during the nonbreeding season. They need open terrain for hunting such as grassland, deserts, savannahs, and early successional stages of forest and shrub habitats. They can soar between 98 to 297 feet above ground in search of prey, or make low, quartering flights often 23 to 26 feet above ground. They occasionally search from a perch and fly directly to their prey or pirate food from other predators such as ravens, commonly seen hunting in pairs. The golden eagle needs secluded cliffs with overhanging ledges and large trees for cover. Alternative nest sites are maintained, and old nests are reused. They build large platform nests, often 10 feet in diameter and 3 feet high of sticks, twigs, and vegetation. Rugged, open habitats with canyons and escarpments are used most often for nesting.

According to CNDDB records the nearest occurrence of golden eagle is approximately 4.61 miles northwest from the project site in 1991. At least two individuals were seen in the vicinity of some active small mammal burrows, southwest from the former Mather Air Force Base between Kiefer Boulevard, Bradshaw Road, Jackson Road, and Excelsior Road. This species was not observed during the Site Assessment but there is marginal foraging habitat in the Project site.

3.1.4 Swainson's hawk (*Bueto swainsoni*)

Swainson's hawk is listed as Threatened on the State level and is a listed species under the Migratory Bird Treaty Act. However, due to its common distribution throughout the country, it is not listed at the Federal level. This species favors open habitat for foraging such as agricultural fields, pastures, and row crops. They nest in scattered stands of eucalyptus, willow, oak, cottonwood, and conifers. On occasion, Swainson's hawk will nest on a power pole or transmission tower. The location of Swainson's hawk nests is typically on the tallest point in or near an open field, giving this species a full view of its foraging area while nesting.

Due to their late return to California for the breeding season, Swainson's hawk often uses the same nests for serval breeding seasons and even generations. If a nest is constructed, it is often constructed with loose bundles of sticks and debris quickly stacked together. They are also territorial of their nests and will dive bomb any other species attempting to use their nest. Red-tailed hawk and great horned owls, which overlap in habitat, are species known to use Swainson's hawk nests. The incubation period for Swainson's hawk is approximately 35 days, and the nesting period is 17 to 22 days. The breeding season for this species begins in March and ends in September.

According to CNDDB records the nearest occurrence of Swainson's hawk is approximately 3.67 miles northwest from the project site in 2010. A nesting pair was observed at the southeast corner of the intersection of Bradshaw Road and Kiefer Boulevard. This species was not observed during the Habitat Assessment but there is suitable habitat on the Project site.

3.1.5 Tricolored blackbird (*Agelaius tricolor*)

The tricolored blackbird is listed as Threatened on the State level and is listed under the Migratory Bird Treaty Act. Males are larger than females and have dark red shoulder patches with cream to white median coverts on the wings, giving the species its name. Males have brown plumage in the fall. Females are shades of gray with a lighter gray throat. They are about 22 centimeters (about 8.66 in) long with a 35.5 centimeters (about 1.16 ft) wingspan. They weigh approximately 59.5 grams.

Tricolored blackbirds are found in areas near water, such as marshes, grasslands, and wetlands. They

require substrate such as aquatic vegetation nearby to build nests. They also need foraging areas which can consist of grassland or agricultural pastures such as rice, grain, or alfalfa.

According to CNDDB records several tricolored blackbirds were observed within 0.45 miles of the project site east and west, in marshland habitats. In 2016 approximately 1,700 individuals were documented during nesting season (colony data stored in the UC Davis Tricolored Blackbird Portal, site name "Excelsior and Eagles Nest"). This species was not observed during the Habitat Assessment however, there is marginal habitat on the Project site.

3.1.6 White-tailed kite (*Elanus leucurus*)

White-tailed kite is a California listed Fully Protected species. The adult White-tailed kite can be identified by its all-white body and head, and grey wings with black shoulder patches. Noticeable wing features while in flight include pointed wing tips, grey to black primaries, black primary coverts, and white secondaries and coverts. They have a long tail which is all white. Another easily identifiable feature of the White-tailed Kite is its red eyes surrounded by grey-black patches. The White-tailed Kite is not a sexually dimorphic raptor, males and females look similar. Juveniles can be identified by their cinnamon brown washed breast and crown as well as having speckled brown shoulder patches. (Dixon and Dixon, 1957; Sibley, 2014)

White-tailed Kites can be found in a variety of habitats throughout North and Central America including grasslands, open fields, marshes, open groves, orchards, and river valleys. They commonly perch on posts, exposed branches, and in treetops (Sibley, 2014). They typically nest in, but are not limited to, live oak, avocado, orange, cottonwood, and sycamore trees about 20-50 feet above ground. White-tailed Kites choose habitats which contain a high density of rodents and small mammals.

A search of CNDDB records indicate the nearest occurrence of golden eagle is approximately 1.86 miles west from the project site in 1990. A nest location and nesting pair was documented 0.25 miles south of elder Creek Road.

Invertebrates

3.1.7 Vernal pool fairy shrimp (*Brachinecta lynchi*)

Vernal pool fairy shrimp is listed as Threatened on the Federal level and has no listing on the State level. Measuring 1 inch long, these are translucent crustaceans with 11 pairs of appendages. They are limited to vernal pool habitats in Oregon and California and do not occur in riverine, marine, or other permanent bodies of water where fish are present. This species is specialized for a short life cycle in seasonal ponds called vernal pools. Each winter, during the rainy season, dry depressions fill up with water and the fairy shrimp hatch. They grow to maturity over several weeks, eating algae and plankton. Vernal pool fairy shrimp swim around upside down, eating algae and plankton growing in the vernal pool. To digest their food, they must produce a thick, glue-like substance to mix with their meal. They use their legs to filter feed or scrape food from hard substrates. During the wet season, the females produce hardy resting eggs, called cysts, which survive the dry season and hatch when the rains come again.

According to CNDDB records, in 2011 vernal pool fairy shrimp were found in abundance less than 1 mile east and south from the project site in several locations. The Sacramento Prairie Vernal Pool Preserve and Arroyo Seco Mitigation Bank are located approximately 1 mile west of the Project site, on the north side of Elder Creek Road. This species is presumed to be an extent in the area.

3.1.8 Vernal pool tadpole shrimp (*Lepidurus packardi*)

Vernal pool tadpole shrimp are distinguished from most other Lepidurus species by having a nuchal organ intersected by a line drawn between the posterior apices of the eyes. The length of an adult vernal pool tadpole shrimp ranges from 0.6 to 3.4 inches from the anterior margin of the carapace to the tip of the caudal lamina. There is no set number of body rings (segments of the thorax and abdomen) or pairs of legs for the species, but most individuals fall in the ranges of 24 to 29 body rings and 30 to 35 pairs of legs. They may vary in coloration, depending on habitat, but are commonly green.

Vernal pool tadpole shrimp occur in vernal pools, clay flats, alkaline pools, ephemeral stock tanks, and roadside ditches and ruts. Habitats include small, clear, well vegetated vernal pools to exceedingly turbid, alkali scald pools or large winter lakes. Typically, they are found in habitats with pond depths greater than 4.7 inches, ponds which hold water for 15 to 30 days, and do not experience wide daily temperature fluctuations. The average pond depth of wetlands is 6 inches. Vernal pool tadpole shrimp are not currently known to use highly saline habitats.

According to CNDDB records approximately 100 adult vernal pool tadpole shrimp were found in a vernal pool complex, on a ranch approximately 0.39 miles north of the project site in February 2016. This species has similar habitat requirements, and regulatory implications as the vernal pool fairy shrimp.

Mammals

3.1.9 American badger (*Taxidea taxus*)

The American badger is not listed on the Federal level and is listed as a Species of Special Concern on the State level. It has a flat body with short legs and a triangular face with a long, pointed, tipped-up nose. It has long brown or black fur with white stripes on its cheeks and one stripe running from its nose to the back of its head. It has small ears on the side of its head and long, sharp front claws. It can be found in open areas like plains and prairies, farmland, and the edges of woods. American badger burrows normally measure approximately 7 to 10 inches (18-25 cm) in diameter.

According to CNDDB records the nearest occurrence of American badger is approximately 1.90 miles northwest from the project site in 1991. This species is not likely to have any regulatory implications concerning the proposed project.

Reptiles

3.1.10 Western pond turtle (*Emys marmorata*)

The western pond turtle is not listed on the Federal level but listed as a Species of Special Concern at

the State level. Western pond turtles are found throughout California, west of the Pacific Crest, and along the Mojave River watershed, ranging from sea level to 1,372 meters (4,500 feet). Their diet consists of plant material, invertebrates, and any life forms found near water sources. Mating typically occurs between April and May, but this species has been seen moving to find new food sources or breeding locations between March and June. This species requires basking sites and suitable upland habitat for egg-laying.

According to CNDDB records, a western pond turtle was observed approximately 2.19 miles northwest from the project site in 1991, in Morrison Creek, below the confluence with the Mather AFB stormwater drain. Another occurrence of western pond turtle was observed in 2007 approximately 4.85 miles northeast from the Project site, on the northeast side of Mather Lake. This species was not observed during the Habitat Assessment and there is marginal habitat on the Project site.

3.2 Listed Plant Species Descriptions

3.2.1 Ahart's dwarf rush (*Juncus leiospermus var. ahartii*)

Ahart's dwarf rush is not listed at the federal and state level but is a listed 1B.2 plant. It is an annual grass-like herb that is native and endemic to California. This is an annual species, densely cespitose, between 1.9 and 11.6 centimeters tall, and color ranging from pale to reddish brown. The stem is generally greater than 0.4 millimeters wide. The leaf basal is less than three-quarters the stem. The inflorescence has a single cluster with 1 to 7 flowers. The bracts are between 0.7 and 2.4 millimeters. The fruit is spheric to oblong, generally larger than the perianth but the same color as the perianth. The seeds are between 0.3 and 0.4 millimeter, ovoid, not striate; appendages minute or 1 obvious. (The Jepson Herbarium)

Ahart's dwarf rush is found in valley and foothill grassland between 100 to 750 feet of elevation. They are restricted to the edges of vernal pools in grasslands. Typically inhabits shallow vernal pools dominated by whitehead pincushion (*Navarretia leucocephala*). Ahart's dwarf rush is a grass-like annual herb and blooms between March and May.

This species was surveyed outside the blooming period and not observed during the Habitat Assessment. According to CNDDB, the nearest and most recent occurrence of this species is approximately 2.70 miles northeast from the Project site. Approximately 300 plants were observed in the year 2000, and 9 plants were observed in 2006 within vernal pools west of Eagles Nest Road.

3.2.2 Boggs Lake hedge-hyssop (*Gratiola heterosepala*)

Boggs Lake hedge-hyssop is a semi-aquatic annual with erect, striate stems 2 to 10 centimeters (0.8 to 3.9 inches) tall. Leaves are opposite, each pair arranged on the stem at right angles to the pair above and below. Sepals are unequal, the lower two distinct, 4 to 6 millimeters (0.2 inches) long, oblong, obtuse, and emarginate, with the upper three fused for 1/3 their length or more. The corolla tube is yellow, somewhat curved, quadrate, exceeding the calyx, and pilose with gland-tipped hairs on the external surface and a few simple hairs within. It has two stamens, with short, slender filaments attached approximately midway on the tube below the upper pair of corolla lobes. The capsule is pear-

shaped, about equaling the persistent calyx.

Boggs Lake hedge-hyssop occurs in vernal pools, marshy regions on the margins of reservoirs and lakes, and in human-made habitats including borrow pits and cattle ponds, most often in clay substrates. In California, wetlands with Boggs Lake hedge hyssop occur among annual grassland, Quercus woodland, Juniperus woodland, or coniferous forest at elevations ranging from 25 to 5,170 feet in elevation. Boggs Lake hedge-hyssop blooms between April and September.

The Habitat Assessment was conducted during the blooming period for Boggs Lake hedge-hyssop. and this plant species was not observed on the project site. According to CNDDB, the nearest and most recent occurrence of this species is 2.65 miles northeast of the Project site. Several plants were found in vernal pools approximately 0.2 miles West of Eagles Nest Road in the vicinity of Mather AFB.

3.2.3 Legenere (*Legenere limosa*)

Legenere, also known as Greene's legenere is not listed at the federal and state level but is a listed 1B.1 plant. It is an annual herb that occurs in vernal pools and other moist habitats. Stems are reclining, 10 to 30 cm (4-12 in) long, and the lateral slender branches are rigid. Leaves are cauline, narrowly triangular, and early-deciduous. Legenere blooms between January and April.

Legenere is associated with smaller, densely vegetated vernal pools ranging in depth from 1.5 to 15.0 inches. Found in freshwater wetlands, valley grassland, wetland-riparian habitat.

This species was surveyed outside the blooming period and not observed during the Habitat Assessment. According to CNDDB, the nearest and most recent occurrence of Legenere is approximately 1.99 miles northeast from the Project site. 30 to 40 plants were observed in 2010 northwest of Eagle Nest Road near Mather AFB.

3.2.4 Sacramento Orcutt grass (*Orcuttia viscida*)

Sacramento Orcutt grass is a small, hairy, aromatic annual grass forming sticky, glandular tufts up to 4 to 6 inches in maximum height. The inflorescence is a small 5 -10 cm (2-4 in) grown longer with age. Spikelets are crowded in clusters with awned tips that curve outward at maturity, giving the spikes a bristly appearance.

Blooming between April and July, Sacramento Orcutt grass is endemic to Sacramento County, California, where it grows only in vernal pools.

The Habitat Assessment was conducted outside the blooming period for Sacramento Orcutt grass and. According to CNDDB, the nearest and most recent occurrence of this species is approximately 3.80 miles northeast of the Project site, on the east side of Sunrise Boulevard. Approximately 1,200 plants were observed on the Anatolia Preserve.

3.2.5 Sanford's arrowhead (*Sagittaria sanfordii*)

Sanford's arrowhead is an aquatic perennial herb up to 130 cm (51 in) tall, growing from a spherical tuber. The leaves are very often submerged, variable in shape, usually long and strap-shaped. Leaves may grow up to 9.8 inches long from the underwater stem. The plant is monoecious, with individuals bearing both male and female flowers. The inflorescence which rises above the surface of the water is a raceme made up of several whorls of flowers, the lowest node bearing female flowers and upper nodes bearing male flowers. The flower is up to 3. 5 cm (1.4 in) wide with white petals. The male flowers have rings of stamens at the centers. Female flowers each have a spherical cluster of pistils which develops into a head of tiny fruits.

Sanford 's arrowhead requires shallow fresh water. It blooms between May and October, and occurs in freshwater-marshes, and wetland riparian areas.

The habitat assessment was conducted within the blooming period for this species, and Sanford's arrowhead was not observed. More than 2,000 individual plants were observed in 2014, however the population is believed to be extirpated in this area based on 2021 aerial imagery. This site was used as a population source for transplant approximately 1.27 miles further west in the Morrison Creek watershed, where the population is still presumed extent based on records last updated in 2022.

3.2.6 Slender Orcutt grass (*Orcuttia tenuis*)

Slender Orcutt grass is an annual grasslike herb which is endemic to northern California. It generally grows with 1 main stem, often branching in upper 2-10 cm (0.8 – 4 inches), sometimes weakly cespitose, sparsely hairy.

Slender Orcutt grass grows in vernal pool habitat in the western and northern foothills surrounding the Sacramento Valley, and blooms from May to September.

The Habitat Assessment was conducted within the blooming period and this species was not observed. According to CNDDB records, the nearest occurrence of this species is approximately 3.10 miles south of the Project site in 2010. Approximately 1,500 plants were observed on the West side of Laguna Creek.

4. Habitat Assessment Results

A qualified Soar Environmental biologist conducted a Habitat Assessment of the Project site on August 10, 2023. The purpose and methodology for the Habitat Assessment are described in (**Section 2.2**). Common birds and plants were observed during the Habitat Assessment (**Table 4**). Special status species descriptions, suitable habitats and details of occurrence for listed species are described in (**Sections 3.1 – 3.2**).

During the Habitat Assessment, there were no observations of special-status wildlife species. However, suitable habitat features or conditions were noted for the following species: tricolored blackbird (*Agelaius tricolor*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), western pond turtle (*Emys marmorata*), and western spadefoot toad (*Spea hammondii*).

The Project site is largely developed, and agricultural, dominated by non-native annual grasses, with some

freshwater emergent wetland habitat encroaching across a small portion of the southern boundary of the Project site. The Project site is largely developed for agriculture, and dominated by non-native annual grasses, with some freshwater emergent wetland habitat encroaching across a small portion of the southern boundary of the Project site. The survey was conducted within the blooming period for the following sensitive plant species: Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Sanford's arrowhead (*Sagittaria sanfordii*), and slender Orcutt grass (*Orcuttia tenuis*). None of these species were observed on the project site or surrounding area, although habitat conditions may be conducive for these species in the wetland habitat centered on the southern boundary of the Project site. The habitat assessment was conducted outside of the blooming period for the following species: Ahart's dwarf rush (*Juncus leiospermus* var. ahartii), Legenere (*Legenere limosa*), and Sacramento Orcutt grass (*Orcuttia viscida*).

There is evidence of ponded water from the emergent freshwater wetland in the southern section of the Project site, and a vernal pool south of the Project site which might provide suitable habitat for vernal pool wildlife and plant species.

Table 4 - Species Observed on Project Site

Wildlife Species Observed	Listing Status	Plant Species Observed	Listing Status
Barn swallow (*Hirundo rustica*)	MBTA	Black mustard (*Brassica nigra*)	None
Black tailed jackrabbit (*Lepus californicus*)	None	Brome (*Bromus* sp.)	None
Domestic pigeon (*Columba livia domestica*)	None	Common thistle (*Scolymus hispanicus*)	None
European starling (*Sturnus vulgaris*)	None	Curly docks (*Rumex crispus*)	None
Goats (*Capra aegagrus hircus*)	None	Knotweed (*Polygonum aviculare*)	None
Ground squirrel (*Otospermophilus beecheyi*)	None	Mock orange tree (*Maclura pomifera*)	None
Horses (*Equus caballus*)	None	Narrow-leaved bottletree (*Brachychiton rupestris*)	None
House finch (*Haemorhous mexicanus*)	MBTA	Plantain (*Plantago lanceolata*)	None
House sparrow (*Passer domesticus*)	None	Prickly lettuce (*Lactuca serriola*)	None
Killdeer (*Charadrius vociferus*)	MBTA	Radish (*Raphanus sativus*)	None
Lesser goldfinch (*Spinus psaltria*)	MBTA	Redstem filaree (*Erodium cicutarium*)	None
Mourning dove (*Zenaida macroura*)	MBTA	Sandspurry (*Spergularia rubra*)	None
Stripped skunk (*Mephitis mephitis*)	None	Stinkwort (*Dittrichia graveolens*)	None

Barynyard grass (*Echinochloa crus-galli*)	None
Yellow star thistle (*Centaurea solstitialis*)	None
Queen palm (*Syagrus romanzoffiana*)	None
Silk tree (*Albizia julibrissin*)	None

5. Findings

Based on analysis of habitat conditions proximate to the Project site, species found in the Literature Review are considered for analysis due to the credible published records of those species occurring historically or otherwise documented within 5 miles of the Project site. Not all species listed in (**Section 3**) are likely to occur in the Project area due to lack of suitable habitat and occurrence.

According to the USFWS National Wetlands Inventory, there is an emergent freshwater wetland in the center of the southern quarter of the Project site which flows in and out from the adjacent property (**Appendix B**). Refer to the Aquatic Resources Wetland Delineation Technical Study and Map for more information.

Reptiles and Amphibians

Western spadefoot toad (*Spea hammondii*) is historically known to occur and is extent in the area. Several western spadefoot toads were seen inhabiting three vernal pools within the former Mather Air Force Base complex. This species was not observed during the Habitat Assessment, however freshwater emergent wetland habitat could provide dispersal habitat for this species within the vicinity of the project site.

An adult western pond turtle (*Emys marmorata*) was observed approximately 2.19 miles northwest from the project site in 1991, in Morrison Creek, below the confluence with the Mather AFB stormwater drain. Another occurrence of western pond turtle was observed in 2007 approximately 4.85 miles northeast from the Project site, on the northeast side of Mather Lake.

Western spadefoot toad and western pond turtle both have life stages which require the availability of standing water. Western spadefoot toad tadpoles require the availability of standing water, but not necessarily once the juvenile goes through metamorphosis. Western pond turtles, however, spend most of their adult lives in and around water but require land to lay their eggs. Therefore, despite the possibility of being able to potentially cohabitate in the same habitat as predator and prey, there is a reasonable potential for both species to occur in the vicinity of the Project site.

Vernal Pool Invertebrates

Vernal pool fairy shrimp (*Brachinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*) are known to occur within the vicinity of the Project site, and critical habitat for these species is 0.71 miles northeast of the Project site. The Sacramento Prairie Vernal Pool Preserve and Arroyo Seco Mitigation Bank are approximately 1 mile west of the Project site, on the north side of Elder Creek Road. The potential for occurrence of vernal pool invertebrates is high because part of their life cycle includes cysts which can lie dormant in the soil over multiple dry seasons. Suitable habitat for these species exists in wetland habitats that occur in the vicinity of the Project site and may have connectivity to the emergent freshwater habitat on the property. The proposed Project will not require fill or any alteration to the aquatic features on site.

Bird Species

Although burrowing owls (*Athene cunicularia*) are known to occur within 2.76 miles of the project site, there is no evidence of burrowing owl occupancy on the property. No small mammal burrows were seen on the project site that would be large enough to accommodate burrowing owls, and no evidence of occupancy was observed (i.e., burrows with whitewash, feathers, prey remains). The Habitat Assessment was conducted during the nesting period for this species, and burrowing owls do not appear to be present within the impact area of the Project site.

There are no large trees in the Project area which would provide adequate nesting habitat for any of the other raptor species identified in the Literature Review section of this report; golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Bueto swainsoni*), and white-tailed kite (*Elanus leucurus*). Although there is foraging habitat for these species in the area, Project activities are not likely to adversely affect any of these raptor species due to the absence of suitable nesting habitat. If no raptor nests are present in the area, it is unlikely Project activities would negatively impact Swainson's hawk, or any other raptor species.

Tricolored blackbird (*Agelaius tricolor*) is known to occur within the vicinity of the project site; however, this species nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Suitable habitat must be large enough to support at least 50 breeding pairs, and water at or near the nesting colony, which is not abundantly present on the Project site, but occurs in the surrounding area. According to CNDDB records several tricolored blackbirds were observed within 0.45 miles of the Project site, east and west, in marshland habitats. Approximately 1,700 individuals were observed during nesting season (colony data stored in the UC Davis Tricolored Blackbird Portal, site name "Excelsior and Eagles Nest").

Mammals

The only mammal shown in the data records search as having potential to occur in the vicinity of the Project site was the American badger (*Taxidea taxus)* approximately 1.90 miles northwest from the Project site in 1991. This species is listed as a California Species of Special Concern, however there was no evidence of occupancy from the Habitat Assessment, and it is not likely to have any regulatory implications concerning the proposed Project.

Special Status Plant Species

The Habitat Assessment was conducted during the blooming period for Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Sanford's arrowhead (*Sagittaria sanfordii*), and slender Orcutt grass (*Orcuttia tenuis*). None of these species were observed, however suitable habitat conditions are conducive for these species in the freshwater emergent wetland areas within and around the Project site.

The habitat assessment was conducted outside of the blooming period for the following species: Ahart's dwarf rush (*Juncus leiospermus* var. ahartii), Legenere (*Legenere limosa*), and Sacramento Orcutt grass (*Orcuttia viscida*). A botanical survey during the blooming period for these species is recommended to confirm their presence or absence.

Critical Habitats

Critical habitats are specific geographic areas which contain features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but will be needed for its recovery. Critical habitat designations do not affect activities by private landowners if no federal funding or permits are required to carry out the activity.

No critical habitats occur within or adjacent to the Project site. However, there is critical habitat for vernal pool fairy shrimp (*Brachinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*), which overlaps with critical habitat for Sacramento Orcutt grass (*Orcuttia viscida*), and slender Orcutt grass (*Orcuttia tenuis*), designated approximately 0.71 miles northeast of the project site, on the other side of Jackson Road.

6. Conclusion

From the information gathered in the data records search and analysis of the habitat on site, vernal pool crustacean species were found to have the potential for occurrence in limited portions of the Project site. Implementation of the project has potential to affect tricolored blackbird, vernal pool fairy shrimp, vernal pool tadpole shrimp, western pond turtle, and western spadefoot toad. Based on the presence of nearby known occurrences of these species and the presence of suitable habitat in the Project area. To reduce impacts to these species, and associated habitats, the following recommended mitigation measures will be implemented.

7. Recommendations

The following avoidance and minimization measures are recommended to avoid potential harm to listed species. Implementation of avoidance and minimization efforts and construction best management practices will reduce the direct and indirect effects from human activities on wildlife.

The Fish and Game Code definition of "take" means to hunt, pursue, catch, capture, or kill, or

attempt to hunt, pursue, catch, capture, or kill (FGC 0.5(1)(86)). This includes the harassment of wildlife, which is defined as including all wild animals, birds, plants, fish, amphibians, reptiles, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability (FGC 0.5(1)(89)).

Permits may be required for certain listed species from CDFW and USFWS. Fully protected species are exempt from take. Consultation with CDFW and USFWS may also be needed if the listed avoidance and minimization measures do not sufficiently address the scope of work proposed in this project. Fines and fees can be imposed by CDFW and USFWS for the violations thereof.

Avoidance and Minimization Measures (AMM)

(Avoid Disturbance or Harm to Wildlife)

Mitigation Measure 1: Western Spadefoot Avoidance

If project activities occur in 2023 (or any subsequent year), the approved biologist should conduct a survey for western spadefoot toad over all suitable habitat present within the Project area. Surveys should be conducted during the time of year when the species is most readily discoverable (typically February-March). The results of the survey should be sent to CDFW. If western spadefoot toad is encountered during surveys, a site-specific avoidance, and minimization plan should be prepared for review and approval by CDFW. This plan should be submitted and approved prior to starting construction activities within the areas where toads or egg masses were discovered. All the measures included in the approved plan should be implemented during project activities.

If construction activities must be implemented during the wet season (October 15 through May 15), silt fencing should be installed around the Project footprint to exclude western spadefoot toad from the work area. Additionally, construction workers should attend a Worker Education Awareness Program (WEAP) that provides information on spadefoot identification, encounter protocols, and contact information for the project biologist if western spadefoot toad are found onsite. All excavated steep-walled holes and trenches greater than six inches deep should be covered or escape ramps provided at the end of each workday to avoid western spadefoot toad entrapment. Erosion control materials used onsite must utilize non-entangling material such as coconut coir matting and fiber rolls containing burlap. The permittee shall not use erosion control materials which contains monofilament. If a western spadefoot toad is encountered during construction activities, then the approved biologist should maintain a 100-foot radius avoidance buffer until the toad leaves the Project site on its own volition, or until the individual can be relocated in accordance with an approved relocation plan.

Implementation of Mitigation Measure 1 should reduce the potential of adverse affects to the other marshland, and vernal pool species with potential to occur near the Project site; tricolored blackbird (*Agelaius tricolor*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and western pond turtle (*Emys marmorata*). The freshwater emergent wetland along the southern boundary of the Project site covers 0.77-acres, and would be the only suitable habitat feature for these species within the Project boundary.

Mitigation Measure 2: Botanical Surveys

A botanical survey should be conducted by a qualified biologist for the following species: Ahart's dwarf rush (*Juncus leiospermus* var. ahartii), Legenere (*Legenere limosa*), and Sacramento Orcutt grass (*Orcuttia viscida*). The survey should be conducted during the blooming period for these species.

Blooming Period

Ahart's dwarf rush	March – May
Legenere	April – June
Sacramento Orcutt grass	April – July

Botanical surveys must be conducted to determine if, or to the extent that, special status or locally significant plants and plant communities will be affected by a proposed project when any natural vegetation occurs on the site and the project has the potential for direct or indirect effects on vegetation.

8. Study Limitations

This Report has been prepared in accordance with generally accepted environmental methodologies and contains all the limitations inherent in these methodologies. The Report documents site conditions that were observed during field reconnaissance and do not apply to future conditions. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this Report.

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Appendix A
Site Visit Photos

Project Area Overview



Overview of where photos were taken

Photo 1 – Middle of Project site (View North)



Photo 2 – Middle of Project site (View East)



Photo 3 – Middle of Project site (View South)



Photo 4 – Middle of Project site (View East)



Photo 5 – Emergent freshwater wetland in south of Property (View North)



Photo 6 – Emergent freshwater wetland in south of Property (View South)



Photo 7 – Emergent freshwater wetland in south of Property (View West)



Photo 8 – Emergent freshwater wetland in south of Property (View East)



Photo 9 – Small mammal burrow



Photo 10 – Small mammal burrow

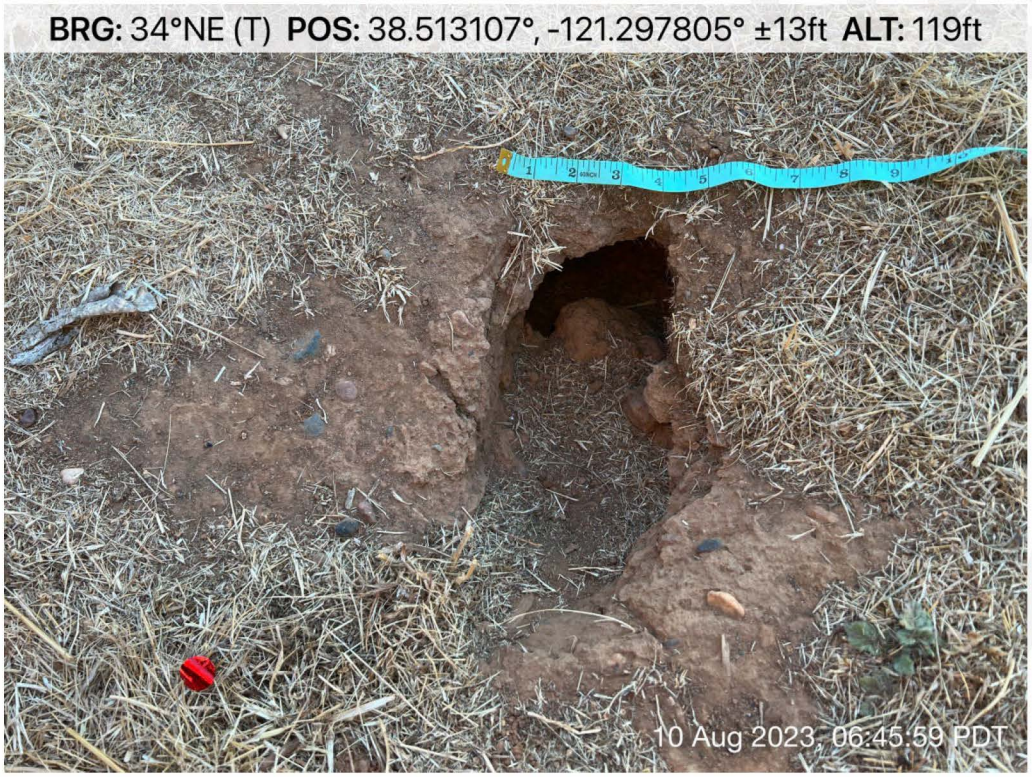


Photo 11 – Small mammal burrow

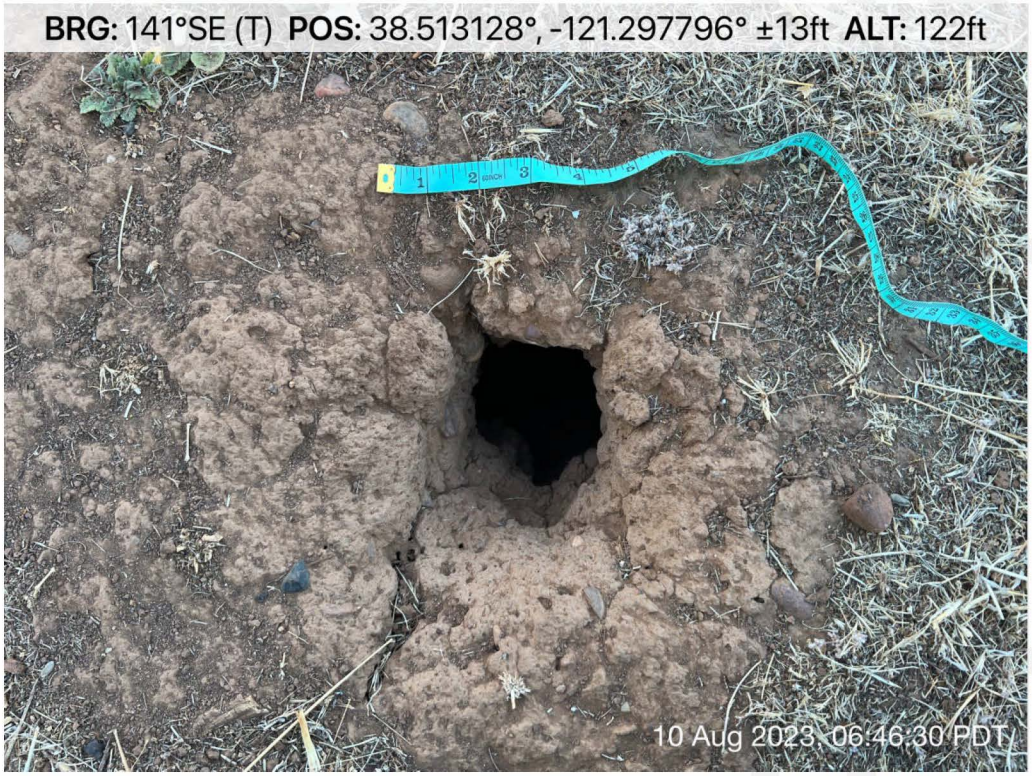


Photo12 – General Project location from Excelsior Road



Photo 13 – Non-native grassland with queen palm trees around emergent freshwater wetland



Photo 14 – Non-native grassland consisting mostly of brome



Photo 15 – Barn swallow on electricity line on adjacent property on North end of Project site



Photo 16 – Emergent wetland (left) and row crops (right)



Photo 17 – Redirected drainage from emergent wetland at buried culvert crossing



Photo 19 – Row crop consisting of strawberries from north end of Project site



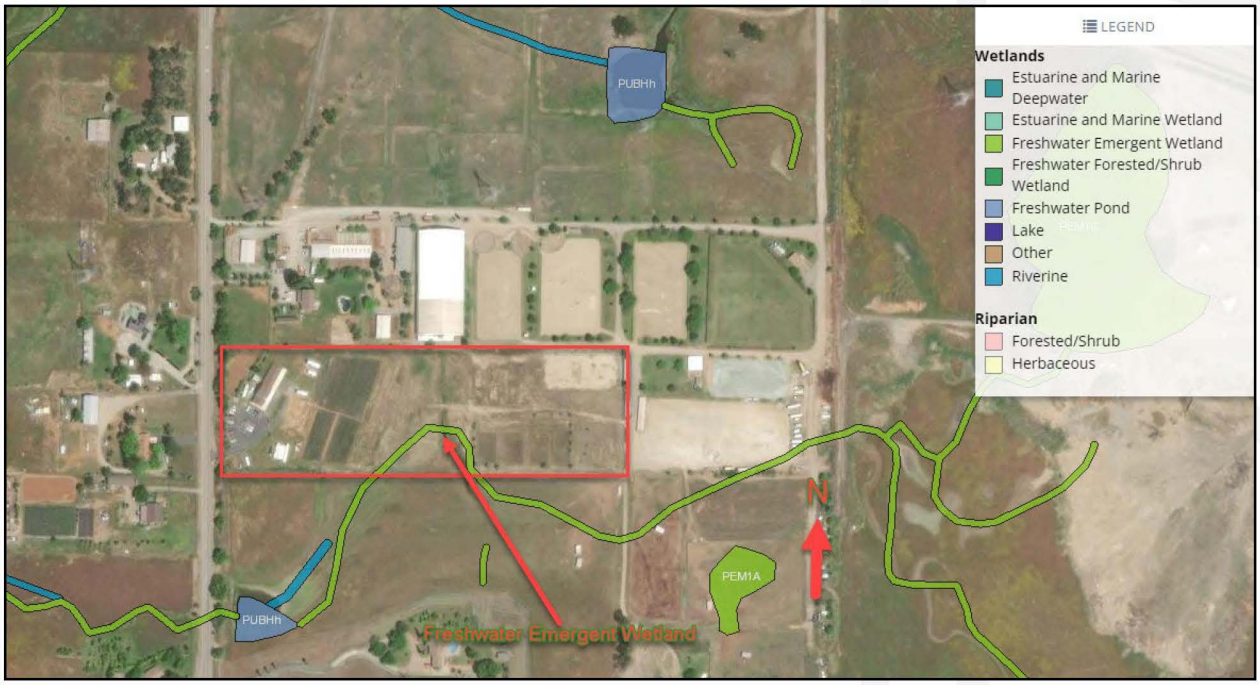
Photo 20 – Additional row crop consisting of Asian cucumbers along northern boundary of Project site



Photo 21 – Row crops along northern boundary of Project site



Appendix B
USFWS National Wetlands Inventory



Appendix C
CDFW California Natural Diversity Database

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Folsom (3812162) OR Citrus Heights (3812163) OR Carmichael (3812153) OR Elk Grove (3812143) OR Sloughhouse (3812142) OR Buffalo Creek (3812152) OR Rio Linda (3812164) OR Florin (3812144) OR Sacramento East (3812154))
 AND County IS (Sacramento)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	PMJUN011L1	None	None	G2T1	S1	1B.2
alkali-sink goldfields *Lasthenia chrysantha*	PDAST5L030	None	None	G2	S2	1B.1
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
American bumble bee *Bombus pensylvanicus*	IIHYM24260	None	None	G3G4	S2	
An andrenid bee *Andrena subapasta*	IIHYM35210	None	None	G1G2	S1S2	
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S3	
black-crowned night heron *Nycticorax nycticorax*	ABNGA11010	None	None	G5	S4	
Blennosperma vernal pool andrenid bee *Andrena blennospermatis*	IIHYM35030	None	None	G2	S1	
Boggs Lake hedge-hyssop *Gratiola heterosepala*	PDSCR0R060	None	Endangered	G2	S2	1B.2
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	PDONA05053	None	None	G4G5T4	S4	4.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S2	SSC
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Cooper's hawk *Accipiter cooperii*	ABNKC12040	None	None	G5	S4	WL
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	Candidate Endangered	G2	S2	
double-crested cormorant *Nannopterum auritum*	ABNFD01020	None	None	G5	S4	WL
dwarf downingia *Downingia pusilla*	PDCAM060C0	None	None	GU	S2	2B.2
Elderberry Savanna *Elderberry Savanna*	CTT63440CA	None	None	G2	S2.1	

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ferruginous hawk *Buteo regalis*	ABNKC19120	None	None	G4	S3S4	WL
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
golden eagle *Aquila chrysaetos*	ABNKC22010	None	None	G5	S3	FP
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great egret *Ardea alba*	ABNGA04040	None	None	G5	S4	
Great Valley Valley Oak Riparian Forest *Great Valley Valley Oak Riparian Forest*	CTT61430CA	None	None	G1	S1.1	
green sturgeon - southern DPS *Acipenser medirostris pop. 1*	AFCAA01031	Threatened	None	G2T1	S1	
hairy water flea *Dumontia oregonensis*	ICBRA23010	None	None	G1G3	S1	
Heckard's pepper-grass *Lepidium latipes var. heckardii*	PDBRA1M0K1	None	None	G4T1	S1	1B.2
legenere *Legenere limosa*	PDCAM0C010	None	None	G2	S2	1B.1
longfin smelt *Spirinchus thaleichthys*	AFCHB03010	Candidate	Threatened	G5	S1	
merlin *Falco columbarius*	ABNKD06030	None	None	G5	S3S4	WL
midvalley fairy shrimp *Branchinecta mesovallensis*	ICBRA03150	None	None	G2	S2S3	
Northern Claypan Vernal Pool *Northern Claypan Vernal Pool*	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool *Northern Hardpan Vernal Pool*	CTT44110CA	None	None	G3	S3.1	
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G4	S3	SSC
Peruvian dodder *Cuscuta obtusiflora var. glandulosa*	PDCUS01111	None	None	G5T4?	SH	2B.2
pincushion navarretia *Navarretia myersii ssp. myersii*	PDPLM0C0X1	None	None	G2T2	S2	1B.1
purple martin *Progne subis*	ABPAU01010	None	None	G5	S3	SSC
Ricksecker's water scavenger beetle *Hydrochara ricksecker*	IICOL5V010	None	None	G2?	S2?	
Sacramento Orcutt grass *Orcuttia viscida*	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sacramento splittail *Pogonichthys macrolepidotus*	AFCJB34020	None	None	G3	S3	SSC
saline clover *Trifolium hydrophilum*	PDFAB400R5	None	None	G2	S2	1B.2
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
silver-haired bat *Lasionycteris noctivagans*	AMACC02010	None	None	G3G4	S3S4	
slender Orcutt grass *Orcuttia tenuis*	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
stinkbells *Fritillaria agrestis*	PMLIL0V010	None	None	G3	S3	4.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S4	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T3	S3	
Valley Needlegrass Grassland *Valley Needlegrass Grassland*	CTT42110CA	None	None	G3	S3.1	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G3	S3	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western ridged mussel *Gonidea angulata*	IMBIV19010	None	None	G3	S2	
western spadefoot *Spea hammondii*	AAABF02020	None	None	G2G3	S3S4	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	PDMAL0H0R3	None	None	G5T3	S3	1B.2
yellow-headed blackbird *Xanthocephalus xanthocephalus*	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 60

Commercial Version -- Dated July, 30 2023 -- Biogeographic Data Branch

Report Printed on Monday, August 07, 2023

Page 3 of 3

Information Expires 1/30/2024

Appendix D
USFWS Information for Planning and Consultation

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.

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Location

Sacramento 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

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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. IPaC only shows species that are regulated by USFWS (see FAQ).

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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:

Amphibians

NAME	STATUS
California Tiger Salamander Ambystoma californiense There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

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Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is final critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS
Sacramento Orcutt Grass Orcuttia viscida Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5507	Endangered
Slender Orcutt Grass Orcuttia tenuis Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1063	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

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- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Bald and Golden Eagle information is not available at this time

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles 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 Rapid Avian Information Locator (RAIL) Tool.

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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

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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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory bird information is not available at this time

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 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 list of migratory birds that potentially occur 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.

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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 Rapid Avian Information Locator (RAIL) 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 or migrating in my 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 query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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

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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.

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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 (NWI)

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.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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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.

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Appendix E
CNPS Rare Plant Inventory

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

19 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3812162:3812163:3812153:3812143:3812142:3812152:3812164:3812144:3812154]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Brodiaea rosea ssp. vallicola	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	Yes	2007-05-22	 © 2019 John Doyen
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011-08-24	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen

Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984-01-01	 © 2004 Carol W. Witham
Lasthenia chrysantha	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30	 © 2009 California State University, Stanislaus
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01	 ©2000 John Game
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May	None	None	G4T1	S1	1B.2	Yes	1994-01-01	 2018 Jennifer Buck
Navarretia eriocephala	hoary navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4?	S4?	4.3	Yes	1974-01-01	 © 2018 Leigh Johnson
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01	 © 2020 Leigh Johnson
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01	 © 2013 Justy Leppert
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01	 © Rick York and CNPS

Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01



©2013 Debra L. Cook

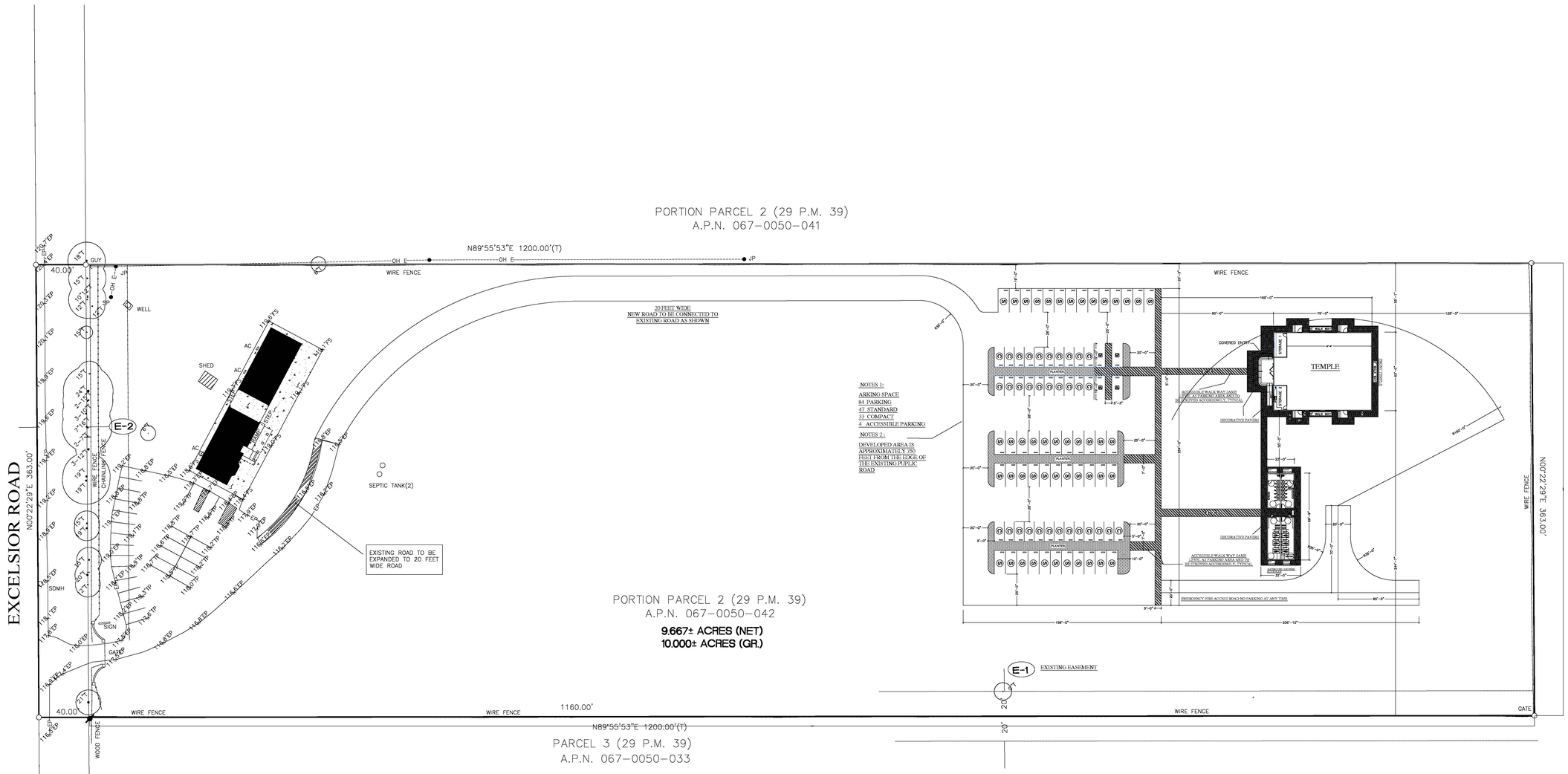


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Showing 1 to 19 of 19 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 7 August 2023].

Appendix F
Site Plan



SITE PLAN

SCALE : 1/32" = 1'-0"

ARAS DESIGN & CONSTRUCTION INC.
2533 SIERRA BOULEVARD
SACRAMENTO, CALIFORNIA 95825
(916) 488-0110
FAX: (916) 488-0110

CONSULTANT

REVISIONS

PROJECT NAME:
IU-MIEN BUDDHIST TEMPLE

ADDRESS

DRAWING TITLE:
SITE PLAN

DATE : 01-23-2023

DRAWN BY: BASHAR

SHEET NO.

A 0

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LEGEL DESCRIPTION

THE SOUTH 1/2 OF PARCEL 2 AS SHOWN ON THAT CERTAIN PARCEL MAP ENTITLED "PORTION OF WEST 1800 FEET SECTION 26, TOWNSHIP 8 NORTH, RANGE 6 EAST, MOUNT DIABLO BASE AND MERIDIAN", RECORDED IN BOOK 29 OF PARCEL MAPS, MAP NO. 39, RECORDS OF SAID COUNTY.

EXCEPTING THEREFROM ALL OIL AND GAS AND OTHER HYDROCARBON SUBSTANCES AND ALL MINERALS IN AND UNDER SAID LAND, BUT WITH NO RIGHT TO ENTER UPON THE SURFACE OF THAT PORTION OF THE LAND LYING ABOVE A DPETH OF 500 FEET FROM THE SURFACE THEREOF AS RESERVED BY GREAT WESTERN FINANCIAL CORPORATION, IN DEED RECORD3ED JUNE 30, 1978, IN BOOK 76-06-30 OF OFFICIAL RECORDS, AT PAGE 1747.

A. P. N. 067-0050-042

SURVEYOR'S STATEMENT

THIS DRAWING/EXHIBIT WAS PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH SECTION 8761. 1 OF THE PROFESSIONAL LAND SURVEYOR' S ACT.

GARY TIMOTHY WONG, P. L. S. 5035 — DATE

BASIS OF BEARINGS

THE BASIS OF BEARINGS OF THE MAP IS BASED ON FOUND MONUMENTS ALONG EXCELSIOR ROAD WITH AN ASSUMED BEARING OF N00° 22' 29"E.

EASEMENT NOTES

E-1 . . . 40' DRAINAGE EASEMENT PER 29 P. M. 39

E-2 . . . 40' RIGHT OF WAY PER 29 P. M. 39

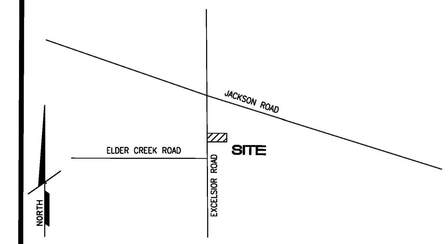
NOTES

1. THE TYPES , LOCATION, SIZES AND /OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. IT IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UTILITIES). HOWEVER, THE SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THIS PLAN.

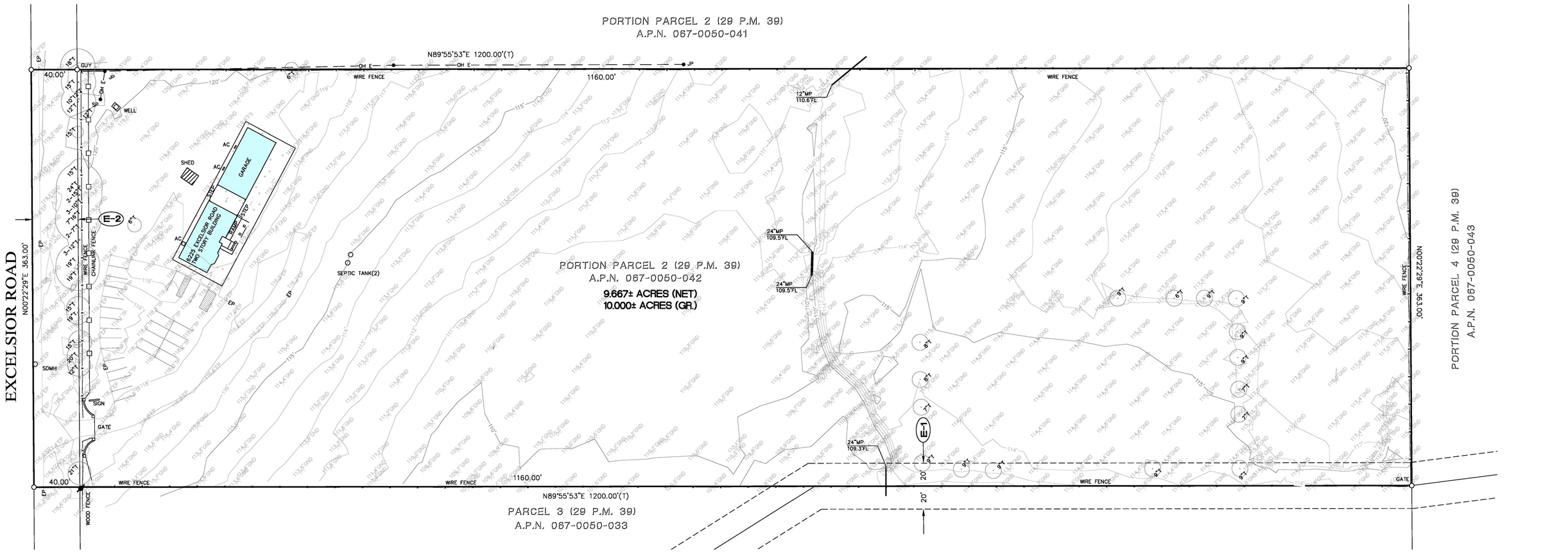
2. THIS SURVEY WAS PREPARED WITHOUT THE AID OF A PRELIMINARY TITLE REPORT. EASEMENTS OF RECORD MAY EXIST WHICH MAY AFFECT THE PROPERTY SHOWN ON THIS SURVEY.

LEGEND

A. P. N.	ASSESSOR' S PARCEL NUMBER
B. M.	BOOK OF MAPS
P. M.	PARCEL MAPS
( ) A	
———	CHAINLINK FENCE
—o—o—	WROUGHT IRON FENCE
—-—-—	WOODEN FENCE
EP	EDGE OF PAVEMENT
GND	GROUND
FL	FLOWLINE
	INDICATES BUILDING
	INDICATES CONCRETE
TP	TOP OF PAVEMENT
SDMH	STORM DRAIN MANHOLE
XX"T	TRUNK SIZE OF TREE IN INCHES
OH E	OVERHEAD ELECTRICAL LINE
FS	FINISH SURFACE
JP	JOINT POLE
SP	SERVICE POLE
GUY	GUY WIRE
AC	AIR CONDITIONING UNIT



VICINITY MAP
NOT TO SCALE



BENCHMARK ELEVATION: 123.0'(NAVD88)
NGS BENCHMARK PID:DH6506
3/4" ALUMINUM ALLOY ROAD DRIVEN TO REFUSAL SET IN 6" DIAMETER PVC WELL CASING. 43.4 METERS WEST OF THE CENTERLINE OF AN ASPHALT DRIVEWAY AT ADDRESS 10768 JACKSON ROAD. 25.6 METERS SOUTHEAST OF JOINT POLE NO. UD066620 WITH A GUY WIRE.

WONG & ASSOCIATES
ENGINEERING * SURVEYING * LAND PLANNING
11344 COLOMA ROAD, SUITE 235A
GOLD RIVER, CALIFORNIA 95670
TEL: (916) 283-4800 FAX: (916) 283-4809

DESIGNED: N/A
DRAWN: TW
CHECKED: GTW
SCALE: 1" = 40'
SUBMITTED: GARY TIMOTHY WONG P.L.S. 5035

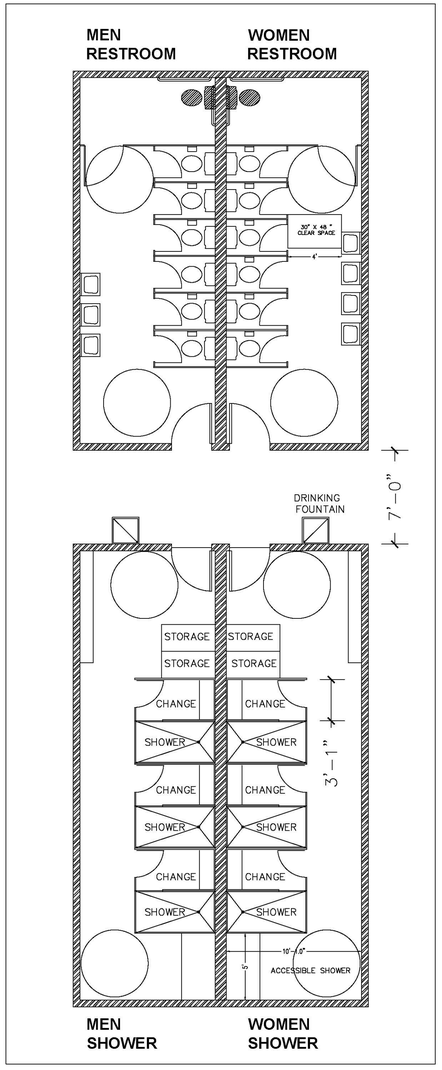
LICENSED LAND SURVEYOR GARY TIMOTHY WONG No. 5035 Expires 12-31-23 STATE OF CALIFORNIA

NO.	DATE	REVISION	BY

TOPOGRAPHIC–BOUNDARY SURVEY
OF
6225 EXCELSIOR ROAD
A.P.N. 067-0050-042

SACRAMENTO COUNTY OF SACRAMENTO STATE OF CALIFORNIA

DATE: 06-02-2022
SHEET: 1 / 1 OF:
JOB NO. 2022-047



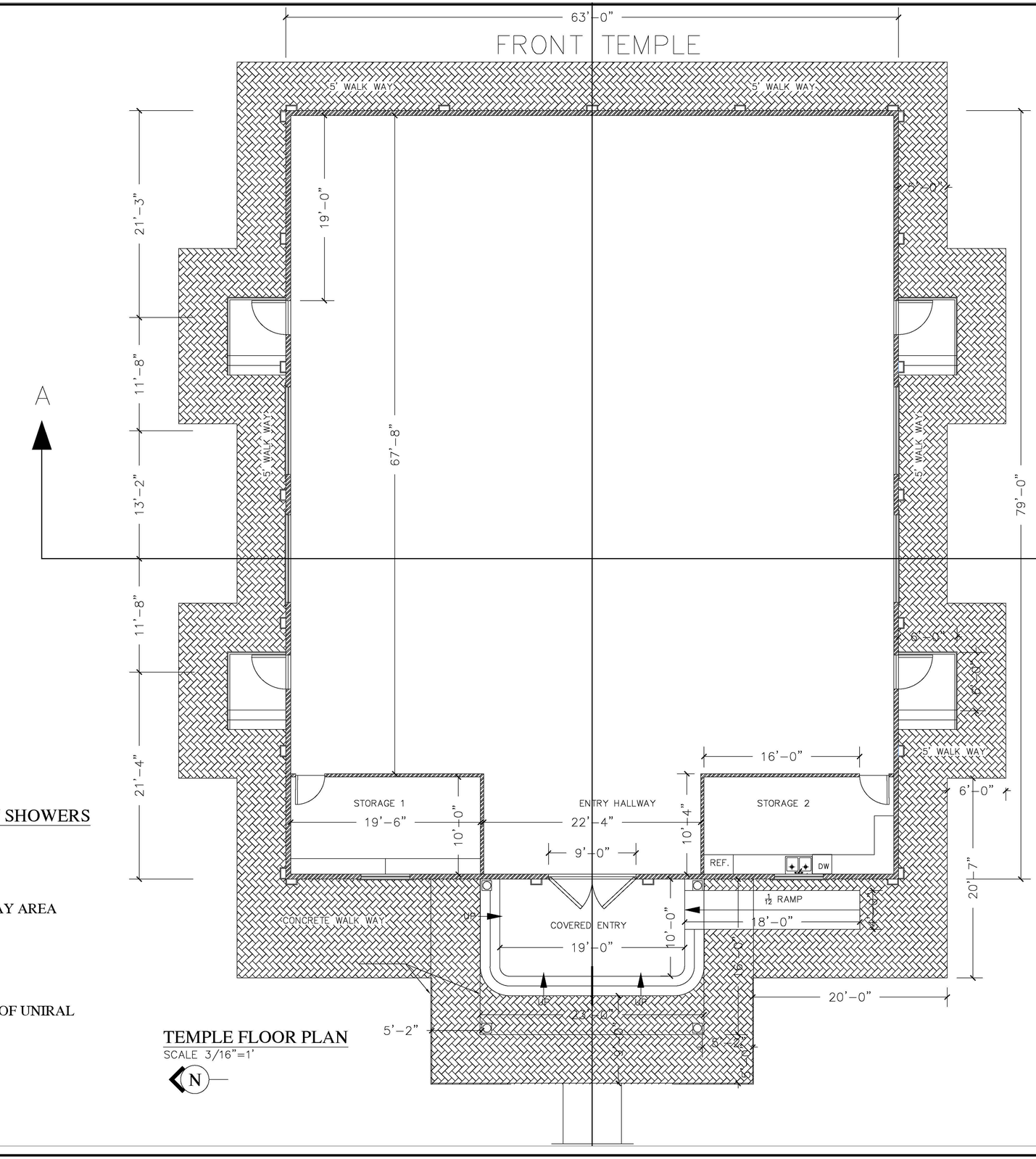
BATHROOMS / SHOWERS FLOOR PLAN

AREAS

TOTAL PROPOSED = 4,816 SF
PRAY AREA = 4,426 FS
STORAGE AREA 1 = 195 SF
STORAGE AREA 2 = 195 SF
PARKING REQUIREMENT 1 PARKING PER 50 SF OF PRAY AREA
4,426 SF / 50 = 88 PARKING SPACES

OCCUPANCY

OCCUPANTS LOAD 7SF PER PERSON = 571 PERSONS
TOILET REQUIREMENT (MALE 4 , FEMALE 7 UNITS)
WE ADD 3 EXTRA TOILET IN MALE SECTION INSTEAD OF UNIRAL



TEMPLE FLOOR PLAN

SCALE 3/16"=1'

N

ARAS DESIGN & CONSTRUCTION INC.
2533 SIERRA BOULEVARD
SACRAMENTO, CALIFORNIA 95825
(916) 488-0110
FAX (916) 488-0110

CONSULTANT

REVISIONS

PROJECT NAME: IU-MIEN BUDDHIST TEMPLE

ADDRESS :

DRAWING TITLE: FLOOR PLAN

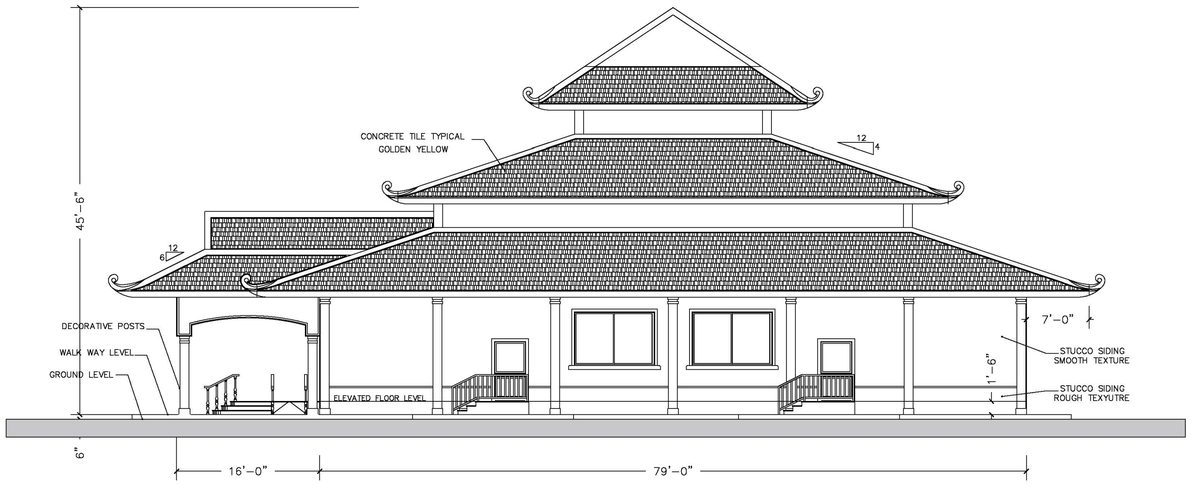
DATE : 01-23-2023

DRAWN BY: BASHAR

SHEET NO.

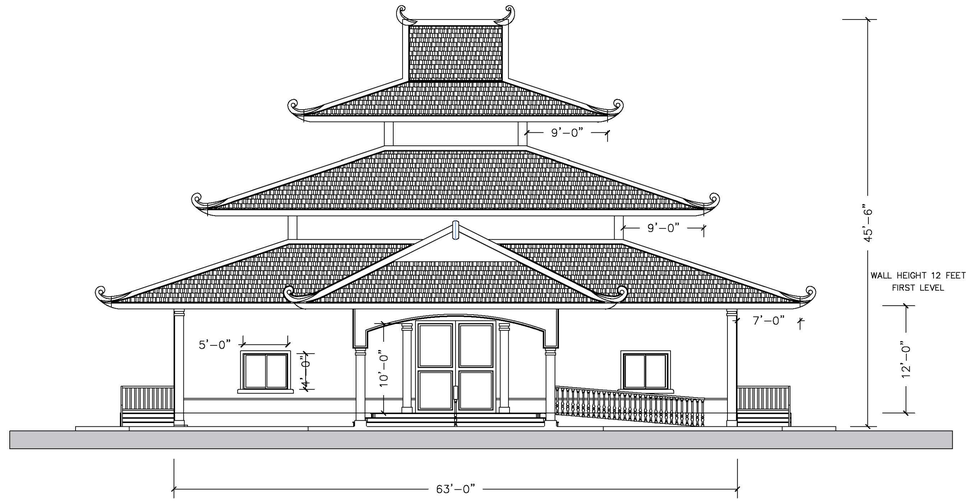
A 1

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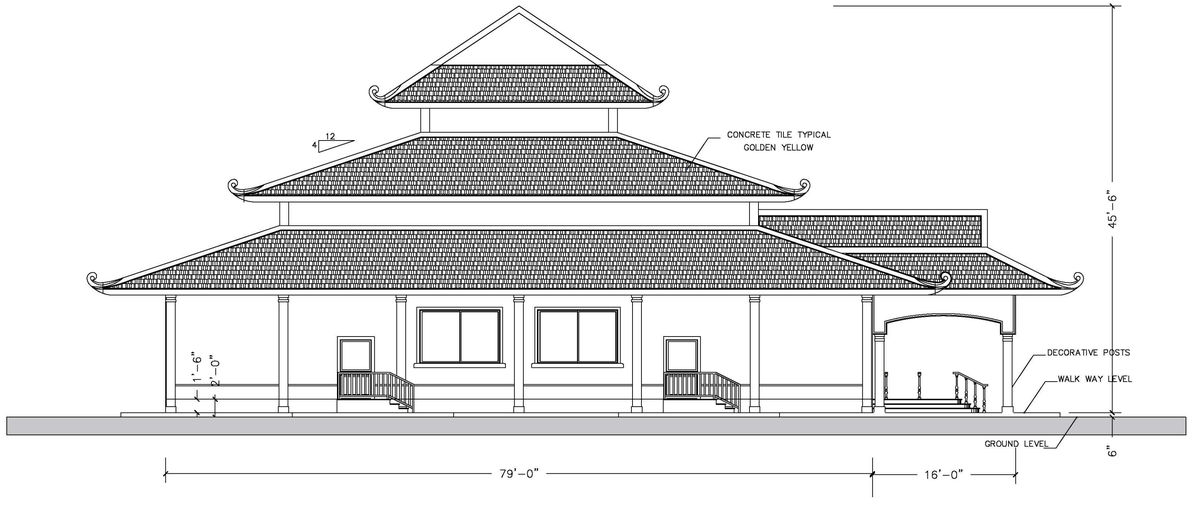
SOUTH ELEVATION

SCALE 1/8"=1'



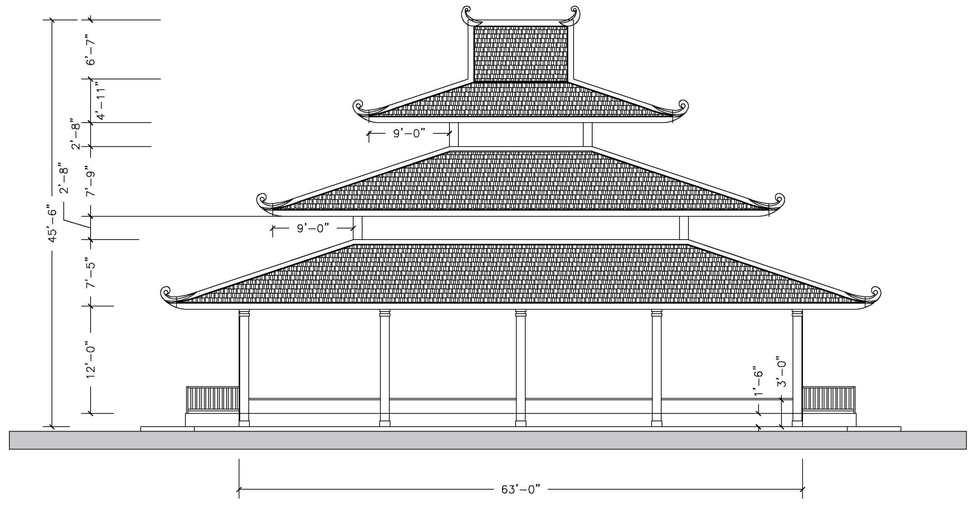
WEST ELEVATION

SCALE 1/4"=1'



NORTH ELEVATION

SCALE 1/8"=1'



EAST ELEVATION

SCALE 1/8"=1'

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PROJECT NAME:
IU-MIEN BUDDHIST TEMPLE

ADDRESS:

DRAWING TITLE:
ELEVATIONS

DATE : 11-23-2022

DRAWN BY: BASHAR

SHEET NO.

A 2