Re: Biological Resource Assessment and Kit Fox Evaluation at 5175 Martingale Circle (APN: 015-023-009), Paso Robles, San Luis Obispo County, California

Prepared for:

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"This Biological Resources Assessment was prepared according to the County's Guidelines. The statements furnished in this report and associated maps are true and correct to the best of my knowledge and belief and the lead biologist certifies that he was present throughout the site visit associated with the report."

Andy Fredell — March 28, 2022

Andy Fredell — Date

Table of Contents

Table of Figures

Table of Tables

1.0 Introduction

1.1 Project Description

The applicant proposes to develop a single-family residence and a cottage at the 0.68 acres Project site (Figure 1). The Project consists of a barn/cottage (1,820 ft^2).and driveway. Future proposed development will include a single-family residence (3,238 ft^2) and a detached garage (535 ft^2) (Figure 2).

1.2 Project Location

This Project site (APN: 015-023-009) lies at 5175 Martingale Circle, Paso Robles, San Luis Obispo County (Figure 1).

1.3 Methods

Prior to performing the field survey, Pax performed a records search for special-status plant and wildlife species potentially occurring in the Project region. Sources utilized during the records search included the California Natural Diversity Database (CNDDB) (CDFW 2021), the Calflora Observation Hotline (Calflora 2021), and the Jepson Flora Project website (eFlora, 2021). The CNDDB records search was performed on a 10-mile radius around the study area in the eight cardinal directions.

A reconnaissance-level survey was performed by Pax Senior Biologist Andy Fredell on August 27, 2021. The study area consisted of the Project disturbance area and 250 to 500-foot (ft) buffer, for a total study area of 16.9 acres. A visual search for plants and wildlife, or their evidence of presence (scat, tracks, burrows, nests, etc.) was performed with 100% visual coverage of the Project disturbance area. All vegetation alliances, as described in the California Manual of Vegetation (Sawyer Keeler Wolf 2009), and/or wildlife habitats, as described in the Guide to California Wildlife Habitats (Holland 1986), were mapped in the study area and digitized on an aerial using ArcGIS. In addition, the site was examined for wetland boundaries, including presence or absence of bed and bank, cracked surface soils, and wetland indicator plants.

Identifiable species were noted and recorded upon detection while voucher photographs of polytypic species were collected for subsequent identification. Following the survey, a determination of the likelihood of occurrence was made for special-status species that were not detected based on species or habitat elements observed during the survey as well as putative flowering phenology (e.g., habitat type, elevation, slope, soil, etc.).

The study area was surveyed on foot to document all plant species occurring in the Project footprint during the survey visit. Below average rainfall totals and weather conditions for the 2020/2021 rainy season were not ideal for plant fecundity and prolonged flowering duration. The site was fully accessible, and several transects were walked throughout the project area to ensure that any special status species would be found if present. Scientific nomenclature follows the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (eFlora 2021).

2.0 Existing Conditions

The Project site consists of approximately 1.8 acres within the 16.9 acres study area of APN 015-023-009 at 5175 Martingale Circle, Paso Robles, San Luis Obispo County. The site is primarily composed of active agriculture. There are graded access roads surrounding the agricultural area. Topography is irregular in the Project site with a plateau in the area of the active agriculture which slopes down on the north and west. Study area elevations range from 793 to 879 feet above mean sea level (amsl).

Soils in the study area are mostly uniform and consist mostly of Arbuckle Positas complex (97%), very deep, well drained soils that formed in alluvium from sedimentary and metamorphic rocks weathered from alfisol deposits and typically occur on low terraces with slopes up to 75%. Hanford and Greenfield gravelly sandy loams (3%) is present in the northwestern corner of the study area and consists of very deep, well drained soils that formed in formed in moderately coarse textured alluvium dominantly from granite weathered from entisols. This soil type is found in stream bottoms, floodplains, and alluvial fans with slopes ranging from 0 to 15 percent (USDA 2021) (Figure 2).

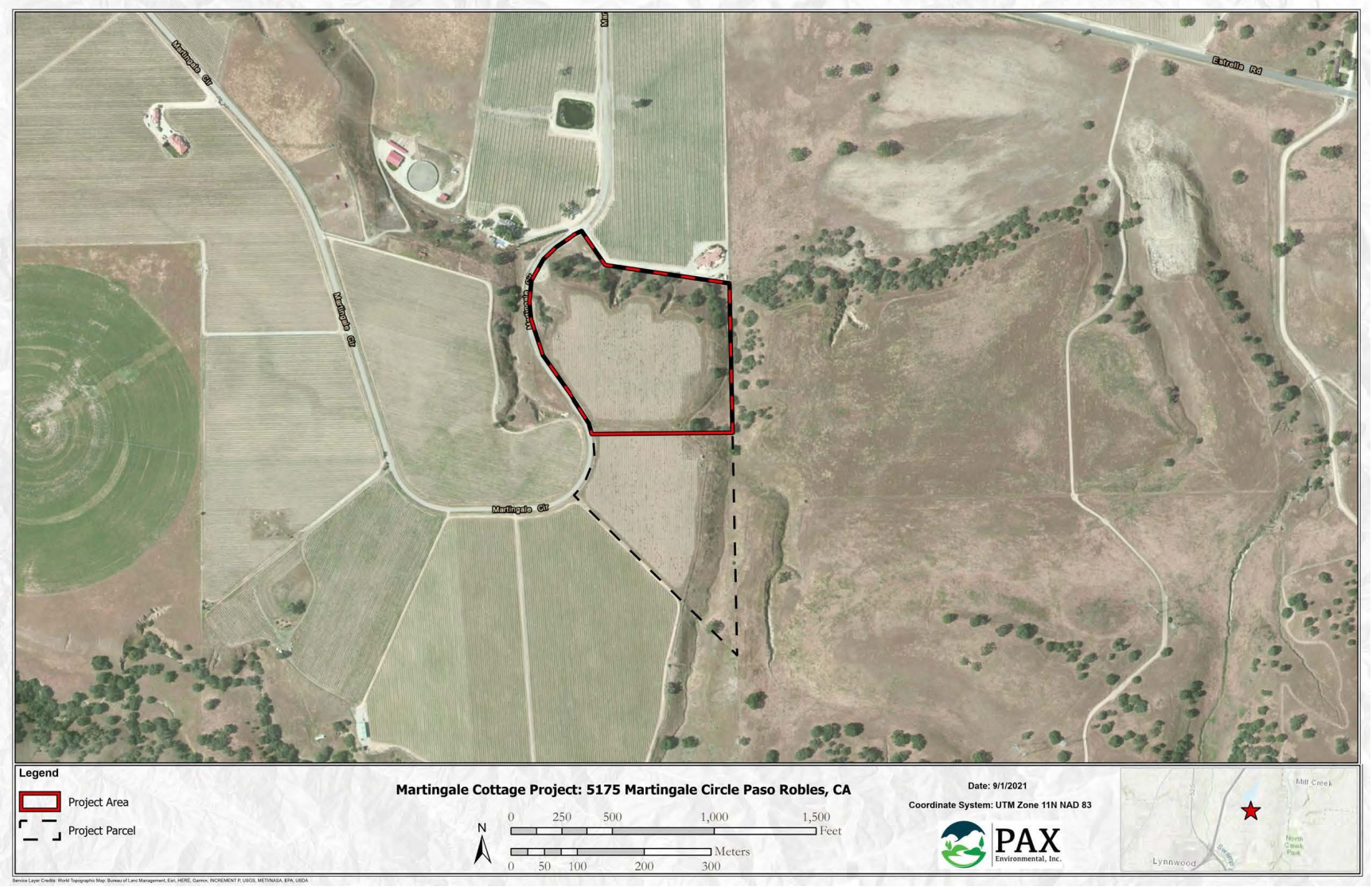

Figure 1. Project Location and Overview.

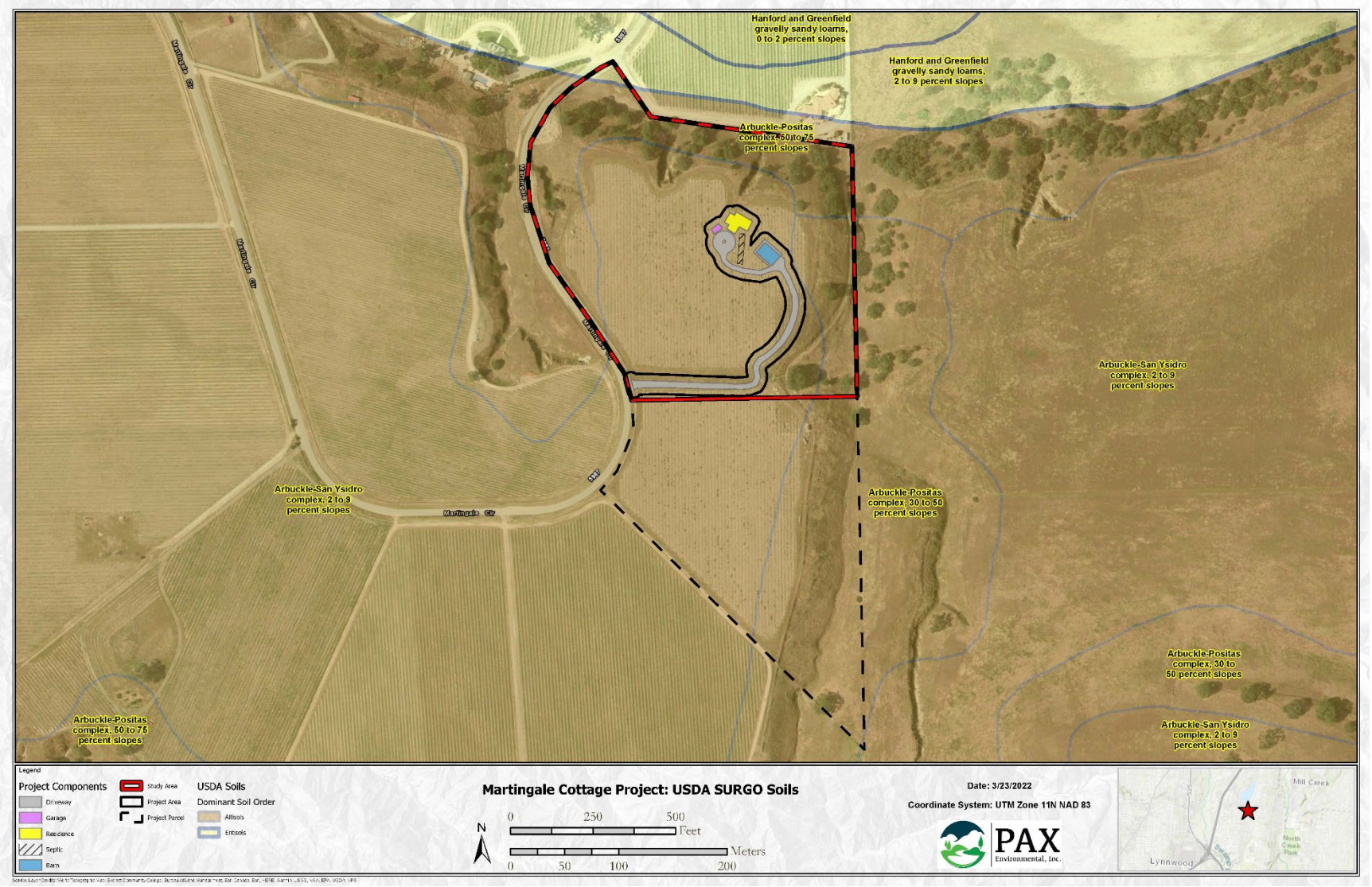

Figure 2. Project Area with Project Components and USDA SURGO Soils.

3.0 Results

3.1 Plants

Vegetation in the study area is representative of repeated disturbance and was dominated by active agriculture. Habitat acreages and distribution in the study area are presented in Table 1 and Figure 3.

Table 1. Vegetation Communities and Habitats in the Study Area.

Vegetation Community	Acreage	% Coverage of Study Area
Active Agriculture	7.81	46.2
Ruderal	3.71	22.0
Blue oak woodland	3.71	21.9
Disturbed	1.68	9.9
Total	16.91	100

Active Agriculture

The most prevalent vegetation community was active agriculture (7.81 acres) comprised of wine grapevines (*Vitis vinifera*) representing 46.2% of the study area and 96.7% of the Project footprint. Non-native grasses and ruderal species were dominant throughout with native species present at much lower densities.

Non-native plants observed during the survey include prostrate pigweed (*Amaranthus albus*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordaceous*), yellow star thistle (*Centaurea solstitialis*), red stemmed filaree (*Erodium cicutarium*), rattail grass (*Festuca myuros*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), narrowleaf cottonrose (*Logfia* gallica), bur clover (*Medicago polymorpha*), and purple vetch (*Vicia benghalensis*).

Native plants observed during the survey include remnant species from native grassland habitat that occurred historically on the site. Species observed during the survey include, turkey-mullein (*Croton setiger*), common cryptantha (*Cryptantha intermedia*), western tansy mustard (*Descurainia pinnata*), horseweed (*Erigeron canadensis*), sticky lessingia (*Lessingia pectinate var. tenuipes*), California cottonrose (*Logfia filaginoides*), and vinegar weed (*Trichostema lanceolatum*).

Blue Oak Woodland

Blue oak woodland in the study area consists of the *Quercus douglasii Forest & Woodland Alliance* (Sawyer et al. 2009). The alliance comprises 3.71 acres primarily in the north and east of the of the property representing 21.9% of the study area and none of the project footprint. It includes oak stands where three or more oaks are codominant in the upper canopy, including blue oak (*Q. douglasii*). The shrub and herbaceous layers are sparse to intermittent and most frequently grassy and forbs are present seasonally.

Dominant native species observed in these areas included interior goldenbush (*Ericameria linearifolia*), common hareleaf (*Lagophylla ramosissima*), California plantain (*Plantago erecta*),

California everlasting (*Pseudognaphalium californicum*). Dominant non-native species observed included ripgut brome (*B. diandrus*), soft chess (*B. hordaceous*), yellow star thistle (*C. solstitialis*), red stemmed filaree (*E. cicutarium*), foxtail barley (*H. murinum*), and purple vetch (*V. benghalensis*).

Ruderal

Ruderal areas are an unclassified habitat type that comprises approximately 3.71 acres (22.0%) of the study area and none of the Project footprint. These areas are primarily composed of non-native grasses and forbs and more ruderal native species. Dominant native species in this area include California plantain (*Plantago erecta*) and California everlasting (*Pseudognaphalium californicum*). Dominant non-native species observed in this area include ripgut brome (*B. diandrus*), red broome (*B. madritensis*), and soft chess (*B. hordeaceus*), and Russian thistle (*Salsola tragus*).

Disturbed

Disturbed/barren areas is an unclassified habitat type that composes approximately 1.68 acres (9.9%) of the study area and 3.3% of the Project footprint. This habitat type includes the access roads around the active agriculture. This area is barren due to repeated disturbance associated with road traffic and repeated human use. Plant species observed in barren areas include mostly introduced weedy species or native weeds that can tolerate repeated disturbance. Non-native species observed include cheeseweed (*Malva parviflora*), knotweed (*Polygonum aviculare ssp. depressum*), Russian thistle (*S. tragus*), and Indian hedge mustard (*Sisymbrium orientale*). Native species observed included small wire lettuce (*Stephanomeria exigua*).

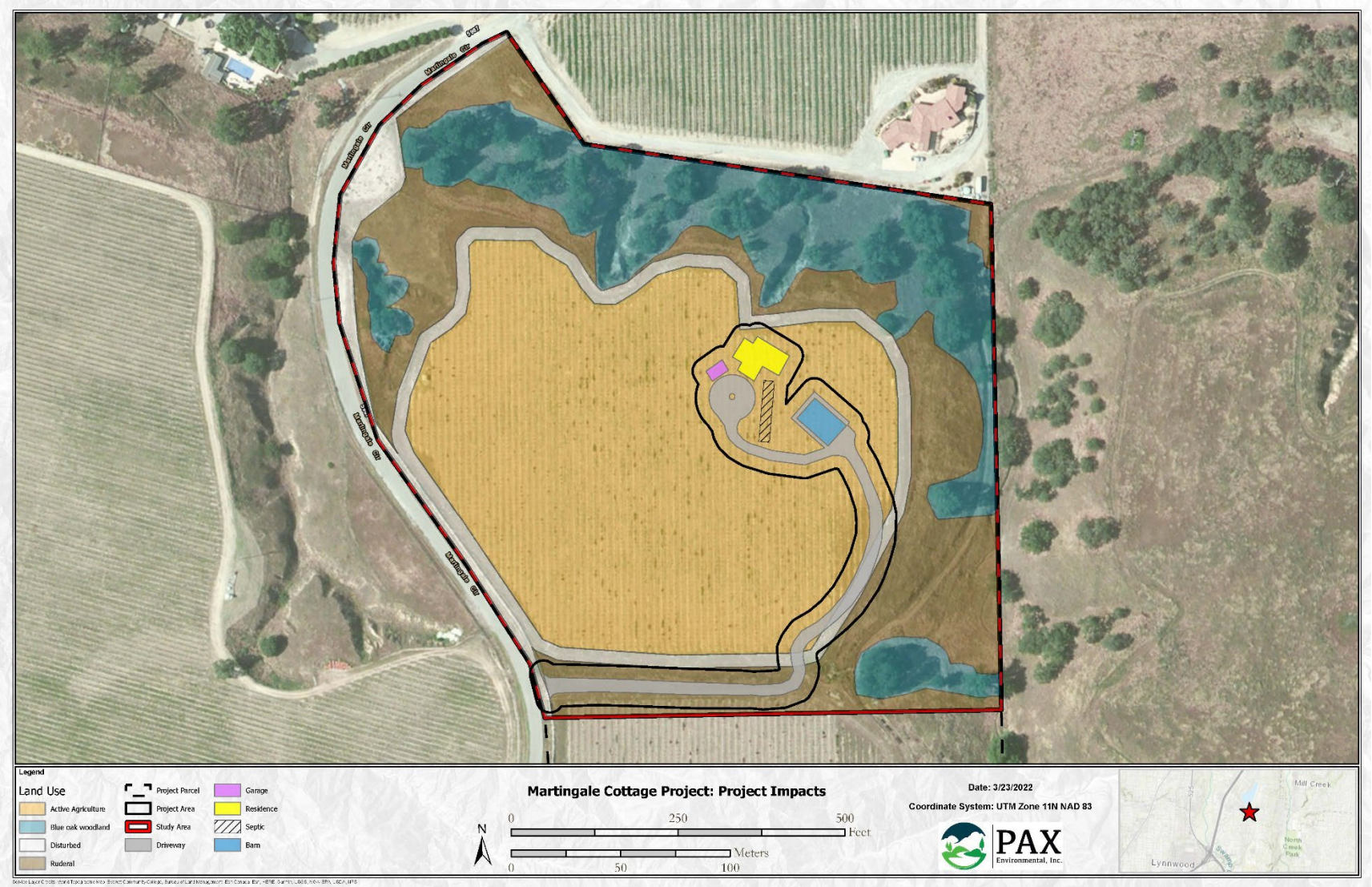

Figure 3. Project Area with Project Components and Vegetation Communities.

3.2 Wildlife

Wildlife species observed during the survey included those common to oak woodlands, scrub, and agricultural habitats. No fish or amphibian species were detected due to lack of natural surface water in the vicinity. Reptile species observed during the survey include Coast Range fence lizard (*Sceloporus occidentalis bocourtii*) and western side-blotched lizard (*Uta stansburiana elegans*).

Bird species observed during the survey include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Anna calypte*), acorn woodpecker (*Melanerpes formacivorus*), Say's phoebe (*Sayornis saya*), western scrub-jay (*Aphelocoma californica*), common raven (*Corvus corax*), bushtit (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), and Brewer's blackbird (*Euphagus cyanocephalus*).

Mammals, or evidence of their presence detected during the survey, include southern pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and coyote (*Canis latrans*).

3.3 Special-Status Biological Resources

The following discussion addresses special-status biological resources having the potential to occur in the Project study area. These resources include plant and wildlife species and habitats that have been afforded special status and/or recognition by the U.S. Fish and Wildlife Service (USFWS), CDFW, and California Native Plant Society (CNPS). In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss.

Special-status plant species considered by the analysis include those potentially occurring within the direct impact footprint that are listed as Threatened and/or Endangered by the California or federal Endangered Species Act(s), as well as those assigned a California Rare Plant Rank (CRPR) by the CNPS that clearly meet the definition of Rare or Endangered under Guideline §15380 of the California Environmental Quality Act (CEQA). CRPR listing statuses are based on the degree of rarity (Lists 1A through 4) and threat level (0.1, 0.2, and 0.3) as follows (CNPS 2021):

Rarity Ranks:

- List 1A: presumed extirpated in California, and rare or extinct elsewhere
- List 1B: rare, threatened, or endangered in California and elsewhere
- List 2A: presumed extirpated in California, but more common elsewhere
- List 2B: rare, threatened, or endangered in California, but more common elsewhere
- List 3: review list of plants about which more information is needed
- List 4: watch list of plants with limited distribution

Threat Ranks:

- 0.1: seriously threatened in California (> 80% threatened / high degree and immediacy of threat)
- 0.2: moderately threatened in California (20-80% threatened / moderate degree and immediacy of threat)
- 0.3: not very threatened in California (< 20% threatened / low degree and immediacy or no current threats known)

Special-status wildlife species considered by the analysis include those listed by the state and/or federal Endangered Species Acts as Threatened and/or Endangered, Candidate(s) for listing as Threatened and/or Endangered, and/or listed by the CDFW as Fully Protected (FP), Species of Special Concern (SSC), and/or CDFW Watchlist (WL).

Natural Communities are evaluated using NatureServe's Heritage Methodology, the same system used to assign global and state rarity ranks for plant and animal species in the CNDDB. They are assigned an overall rarity score for a single rank of 1 through 5. Evaluation is done at both the Global (full natural range within and outside of California) and State (within California) levels resulting in a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents.

Wetlands are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the United States Army Corps of Engineers (USACE). According to the USACE, areas considered to be a "wetland" (and subject to the regulatory jurisdiction of the USACE) must exhibit hydrology, hydric soils, and hydrophilic vegetation that meet federal criteria, as indicated in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008).

In addition, if drainages meet the criteria established by Section 1600 of the California Fish and Game Code, the CDFW may require a Streambed Alteration Agreement prior to any modification of the bed, bank, or channel of streambeds. CDFW jurisdiction generally includes the streambed and the canopy of associated riparian vegetation.

Table 2, Special-Status Plant Species, and Table 3, Special-Status Wildlife Species, provide a summary of special-status plant and wildlife species known to occur in the Project region including information on the status, potential for occurrence within the Project site, and definitions for the various status designations. Figure 5 presents the locations of special-status resources in proximity to the Project site, as determined by records searches. Sources used to determine the special-status of biological resources are as follows:

- Plants – Electronic Inventory of Rare and Endangered Vascular Plants of California. (California Native Plant Society [CNPS] [2021]). California Natural Diversity Database (CNDDB) List of Special Plants (CDFW 2021).
- Wildlife - CNDDB List of Special Animals (CDFW 2021)
- Habitats – CNDDB List of Sensitive Natural Communities (CDFW 2021)

3.4 Special-Status Plants

The CNDDB and CNPS on-line inventory listed 10 plants as occurring in the Project region which are considered special status (CNPS List 1 and 2 species). No special status plants were observed during the survey in a below-average rainfall year. Additionally based on the habitats in the area none of these species are expected to occur.

3.5 Special-Status Wildlife

The CNDDB on-line inventory listed 21 special status wildlife species in the region. No special status wildlife species were observed on the Project site or throughout the study area during the surveys. Three species were determined to have a low potential to occur on the Project site.

Invertebrates

The study area was determined to have a moderate potential for occurrence of Crotch's bumble bee (*Bombus crotchii*), a candidate for listing as Endangered under the California Endangered Species Act (CESA). This species is known to inhabit rodent burrows and other refugia in scrub and grassland habitats. California ground squirrel burrows were observed in the study area during surveys. The marginal suitability of habitat on the Project site, resulting in a low potential for occurrence.

Birds

The study area was determined to have a low potential for Swainson's hawk (*Buteo swainsonii*), a state listed Threatened species. The closest CNDDB record for Swainson's hawk is approximately 3.5 miles northeast. This species typically occupies flats and agricultural fields in desert areas. Given the marginal suitability of the habitat in the study area and the distance to known records, this species has a low potential for occurrence.

Mammals

The study area was determined to have a low potential for the San Joaquin kit fox (*Vulpes macrotis mutica*) (SJKF), a federally-listed Endangered and state listed Threatened Species. The closest CNDDB record for SJKF is more than 3-miles to the southeast. This species occurs in relatively flat to gently rolling grasslands and open scrub with friable soils where it will excavate burrows or expand California ground squirrel burrows (Zeiner et al. 1990). No burrows for this species were identified in the study area. However, given the proximity to known records this species is considered to have a low potential for occurrence.

3.6 Sensitive Natural Communities

The CNDDB records search did not identify any special status natural communities as occurring in the Project region. Vegetation on the study area consists of the active agriculture, blue oak woodland, ruderal, and disturbed. Within the Project site vegetation communities are active agriculture and developed/disturbed. None of the above-mentioned natural communities are considered special status.

No surface water was observed in the study area during the survey and no depressions that could become inundated during rain events were identified. There was no evidence of standing

water, and no wetland indicator plant species or soils were identified. A search of the National Hydrographic Dataset (NHD) and National Waters Inventory (NHI) identified an intermittently flooded riverine streambed on the eastern portion of the property (Figure 4). This riverine feature is located 220 ft from the closest point of the driveway, 235 ft from the barn, and 305 ft from the proposed future house.

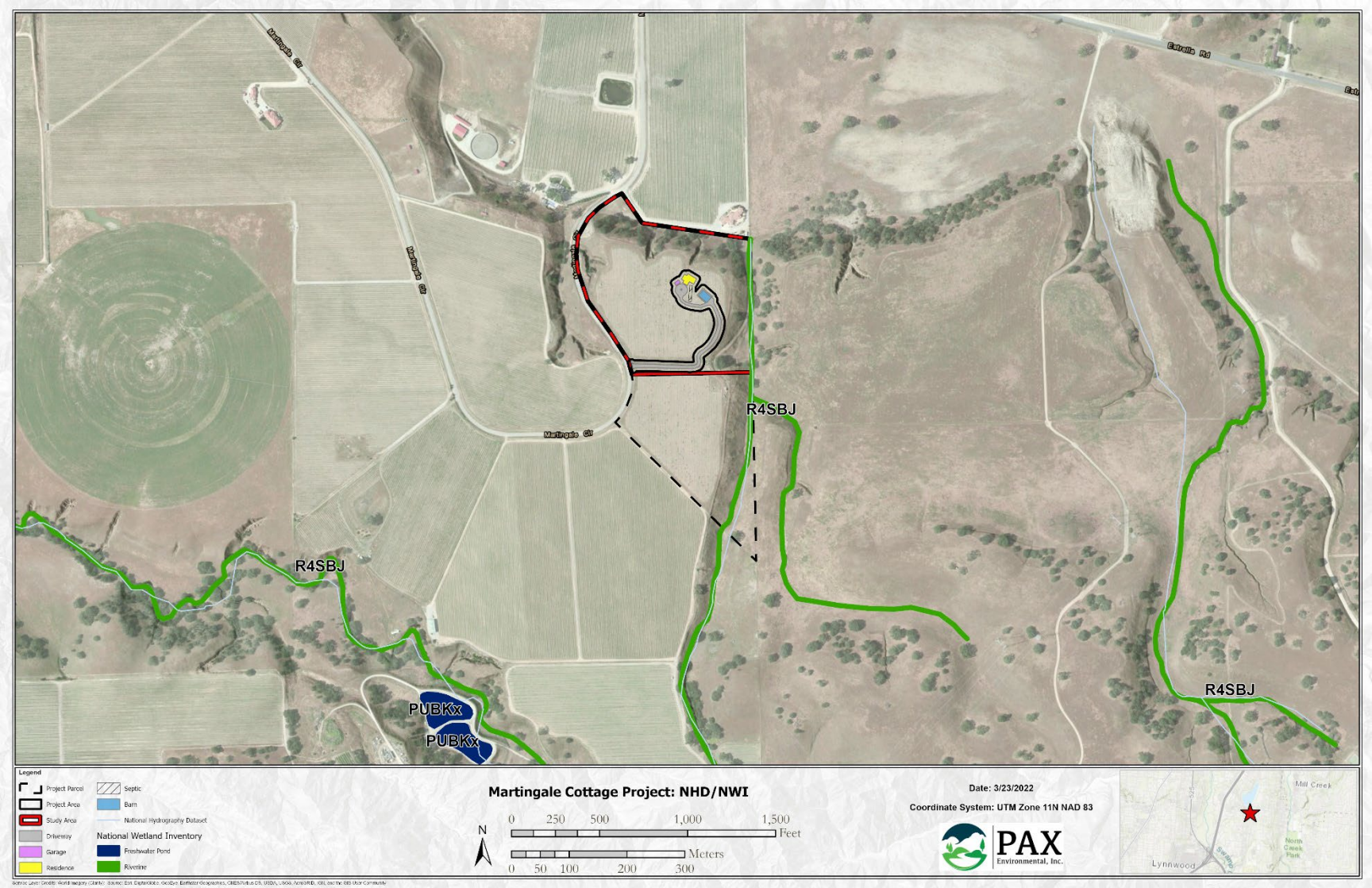

Figure 4. National Hydrographic Dataset and National Waters Inventory Map.

Table 2. Special-Status Plant Species Occurring in The Project Region

Scientific Name	Common Name	Status			Bloom Period	Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW	CNPS			
Calycadenia villosa	dwarf calycadenia			1B.1	May-Oct	Open, dry meadows, seeps, hillsides, and gravelly washes in chaparral, cismontane woodland, or valley and foothill grassland between 1,970 to 2,065 ft elevation	Not expected (3,6)
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover			1B.2	Mar-May	Meadows and seeps, Valley and foothill grassland; sometimes serpentinite between 30 and 1,410 ft elevation	Not expected (2, 5)
Caulanthus lemmonii	Lemmon's jewelflower			1B.2	Mar-May	Pinyon/ juniper woodland and grasslands between 1,085 and 3,020 ft elevation	Not expected (3, 5, 6)
Eriogonum temblorense	Temblor buckwheat			1B.2	May-Sept	Valley and foothill grassland with barren clay or sandstone areas between 750 and 2,755 ft elevation	Not expected (2, 7)
Horkelia cuneata var. sericea	Kellogg's horkelia			1B.1	Feb-Jul	Sandy or gravelly areas among chaparral, cismontane woodland, and coastal scrub between 50 and 5,400 ft elevation.	Does Not Occur (1, 2)

Scientific Name	Common Name	Status			Bloom Period	Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW	CNPS			
Juncus luciensis	Santa Lucia dwarf rush			1B.2	Apr-Jul	Vernal pools, ephemeral drainages, wet meadows and streamside's among lower montane coniferous forest, chaparral and Great Basin scrub between 680 and 6,680 ft elevation	Not expected (1, 2, 5)
Lepidium jaredii ssp. jaredii	Jared's pepper-grass			1B.2	Mar-May	Alkali flats and sinks with sandy soils among valley and foothill grassland between 1,105 and 3,300 ft elevation	Not expected (1, 2, 3)
Monolopia gracilens	woodland woollythreads			1B.2	Mar-Jul	Redwood forests, mixed evergreen forests, chaparral between 490 and 3640 ft elevation.	Does Not Occur (1)
Navarretia fossalis	spreading navarretia	FT		1B.1	Mar-Jul	Hardpan or claypan in vernal pools, chenopod scrub, marshes, swamps and playas between 50 and 2,790 ft elevation	Not expected (2,6)
Navarretia nigelliformis ssp. radians	shining navarretia			1B.2	Mar-Jul	Cismontane woodland, valley/foothill grassland, and vernal pools between 525 and 1,770 ft elevation	Not expected (2, 6)

Scientific Name	Common Name	Status			Bloom Period	Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW	CNPS			

1: STATUS DEFINITIONS

USFWS

FE: Species designated as endangered under the federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."

FPE: Proposed for federal listing as Endangered.

C: Candidate for federal listing as Threatened or Endangered.

FT: Species designated as Threatened under the Federal Endangered Species Act = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."

FPT: Proposed for federal listing as Threatened.

CDFW

SE: Endangered = "a species is Endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes" and is officially listed as such under the California Endangered Species Act (CESA).

ST: Threatened = "a species that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act" (CESA).

SR: State-listed as Rare = "taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation" (Special Vascular Plants, Bryophytes, and Lichens List.

SC: State candidate for listing as threatened or endangered

CNPS

1A Plants Presumed Extinct in California

1B Plants Rare, Threatened, or Endangered in California & elsewhere

2A Plants presumed extirpated in California, but more common elsewhere

2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3 Review list of plants about which more information is needed

4 Watch list of plants with limited distribution

2: LIKELIHOOD FOR OCCURRENCE

Not expected: Not expected to occur in Project footprint

Low: Low potential to occur in Project footprint

Moderate: Moderate potential to occur in Project footprint

High: High potential to occur in Project footprint

Present: Observed within Project footprint

RATIONALE

1: Lack of suitable habitat

2: Lack of suitable substrate

3: Beyond known elevation range

4: Beyond known geographic range

5: Required soil moisture regime not present

6: Not observed during survey

7: Marginally suitable habitat present

8: Suitable habitat present but no known records within one mile

9: Suitable habitat present with known records within one mile

10: Observed during survey

Table 3. Special-Status Wildlife Species Occurring in The Project Region.

Scientific Name	Common Name	Status		Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW		
Invertebrates					
Bombus crotchii	Crotch bumble bee		SCE	Burrows in grassland or scrub with, or in proximity to, nectar sources (perennially flowering plants) in coastal California east to the Sierra-Cascade Crest and south into Mexico	Low (6)
Branchinecta lynchi	vernal pool fairy shrimp	FT		Valley & foothill grassland with vernal pools.	Not expected (1)
Fishes					
Lavinia exilicauda harengus	Monterey hitch		SSC	Lakes, ponds, sloughs, backwaters and sluggish sandy pools of small to large rivers	Not expected (1)
Amphibians					
Spea hammondii	western spadefoot		SSC	Grasslands and woodlands with vernal pools	Not expected (1)
Reptiles					
Actinemys pallada	southwestern pond turtle		SSC	Ponds, marshes, rivers, streams, and irrigation ditches with basking sites and suitable upland habitat for egg-laying	Not expected (1)
Anniella pulchra	Northern California legless lizard		SSC	Moist sandy or loose loamy soils under sparse vegetation.	Not Expected (1,2)

Scientific Name	Common Name	Status		Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW		
Arizona elegans occidentalis	California glossy snake		SSC	Scrub or grassland with loose or sandy soils	Not Expected (1,2)
Phrynosoma blainvillii	coast horned lizard		SSC	Sandy substrate with scattered low bushes and abundant native ants and other insects.	Does Not Occur (1)
Birds					
Agelaius tricolor	tricolored blackbird		ST, SSC	Open water with cattails or other protected nesting substrate within two miles of foraging habitat	Nesting: Not expected (1) Foraging: Not expected (1)
Aquila chrysaetos	golden eagle		FP, WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons or large trees in open areas.	Nesting: Does Not Occur (1); Not expected (1)
Buteo swainsoni	Swainson's hawk		ST	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats	Nesting: Not Expected (1); Foraging: Low (6)
Coturnicops noveboracensis	yellow rail		SSC	Sedge- or grass-dominated wetlands, particularly wet prairie and rich fens with narrow-leaved sedges and wet meadows with wide-leaved sedges and grasses	Nesting: Does Not Occur (1); Does not occur (1)
Falco mexicanus	prairie falcon		WL	Dry open terrain and cliffs for nesting	Nesting: Not expected (1); Foraging: Not expected (1)

Scientific Name	Common Name	Status		Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW		
Riparia riparia	bank swallow		ST	Vertical banks, cliffs, and bluffs in alluvial, friable soils. Lowland areas along ocean coasts, rivers, streams, lakes, reservoirs, and wetlands	Nesting: Not expected (1); Foraging: Not expected (1)
Vireo bellii pusillus	least Bell's vireo	FE	SE	Willow, mulefat, mesquite in low riparian in vicinity of water or dry river bottoms below 2,000 ft. elevation.	Nesting: Does Not Occur (1); Foraging: Not expected (1)
Mammals					
Ammospermophilus nelsoni	Nelson's antelope squirrel		ST	Hot, arid valleys and scrub deserts in the southern San Joaquin Valley	Not expected (1)
Antrozous pallidus	pallid bat		SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting	Not expected (1)
Onychomys torridus tularensis	Tulare grasshopper mouse		SSC	Hot, arid valleys and scrub deserts in the southern San Joaquin Valley	Not expected (1)
Perognathus inornatus psammophilus	Salinas pocket mouse		SSC	Valley & foothill grassland. Annual grassland and desert shrub communities in the Salinas Valley. Fine-textured, sandy, friable soils.	Not expected (1,2)
Taxidea taxus	American badger		SSC	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils	Not Expected (1)

Scientific Name	Common Name	Status		Habitat Description	Likelihood for Occurrence/Rationale[2]
		USFWS	CDFW		
Vulpes macrotis mutica	San Joaquin kit fox	FE	ST	Friable soils among annual grasslands or grassy open stages with scattered shrubby vegetation.	Low (6)

Status Definitions[1]

USFWS

FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."

FT: Species designated as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."

FPE: Proposed for federal listing as Endangered.

FPT: Proposed for federal listing as Threatened.

BCC: Bird of Conservation Concern

CDFW

ST: Threatened = "a species that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."

SE: Endangered = "a species is Endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."

SR: Rare = " not presently threatened with extinction, but in such small numbers throughout its range that it may become Endangered if its present environment worsens."

FP: Fully Protected species are protected by special legislation and cannot be taken at any time.

SSC: Species of Special Concern.

WL: Watch List

[2]: LIKELIHOOD TO OCCUR IN THE PROJECT DISTURBANCE AREA

Not expected: Not expected to occur

Low: Low potential to occur

Moderate: Moderate potential to occur

High: High potential to occur

Present: Known to occur

[3]: Species not expected in the Project disturbance area but may occur in the study area

[2]: RATIONALE

1: Lack of suitable habitat

2: Lack of suitable substrate

3: Beyond known elevation range

4: Beyond known geographic range

5: Marginally suitable habitat present

6: Suitable habitat present but no known records within one mile (or appropriate distance based on typically sized territory for the species)

7: Suitable habitat present with known records within one mile (or appropriate distance based on typically sized territory for the species)

8: Species or evidence of presence observed during survey

9: Overwintering migrant

4.0 Impact Assessment and Mitigation

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study Checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the Project would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery study areas;
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan.

Biological resource impact evaluation must consider both the resource itself and how that resource fits into a regional or local context. Impacts that diminish or eliminate a regionally important biological resource, or conflict with local, state, or federal resource conservation plans designed to protect said resources are considered substantial. Whereas, impacts to resources considered locally important may not be significant according to CEQA if there is not a regional effect.

4.1 Plants

The Project site is composed of annual active agriculture and disturbed areas that have been invaded by non-native, weedy species occurring at much higher densities than natives. These conditions are considered unsuitable for all special status plants known to occur in the Project region. Habitat impacts are presented in Table 4 below.

Table 4. Vegetation Impacts

Habitat Type	Acreage
Active Agriculture	1.74
Disturbed/	0.06
Total	1.80

Active agriculture on the Project site primarily consists of non-native species. Spreading the seed of invasive species from the Project site and into new areas may result in indirect impacts to special-status plant populations and sensitive habitats within the region. Implementation of Mitigation Measure BIO-2 below would be expected to reduce potential impacts to a level considered less than significant.

4.2 Wildlife

The total area of direct disturbance is approximately 1.74 acres of annual brome grasslands, a non-natural vegetation, and 0.06 acres of disturbed or barren areas. These habitat types are repeatedly disturbed and dominated by weedy species, represent little value to native wildlife, and are not expected to support substantial populations of common or special status wildlife. Short-term direct impacts to habitat could cause injury or death to wildlife because of construction-related disturbances, such as vegetation removal, grading, and construction. However, the loss of these habitats would not be expected to substantially reduce the extent, diversity, or quality of native or other important vegetation for wildlife or result in substantial loss of native wildlife.

Invertebrates

Based on the presence of marginally suitable habitat, the Project site was determined to have a low potential for occurrence of Crotch's bumble bee, a federally and state listed Threatened species. Given the limited size of the Project site and limited extent of occupiable habitat for this species, the likelihood of impact is considered low. Implementation of Mitigation Measures BIO-1 and BIO-3 would avoid or reduce potential direct and indirect impacts to this species to a level considered less than significant.

Birds

The Project has the potential for direct and/or indirect impacts to active nests during construction, including direct impacts to ground-nesting bird species. Threatened birds, including Swainson's hawk, and indirect impacts to common raptors and/or other passerines nesting in the study area and/or adjacent areas. Nest failure or take resulting from Project activities would conflict with the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712) and California Fish and Game Code (FGC Division 4, Part 2, §§ 3503 and 3513). Implementation of Mitigation Measures BIO-1 and BIO-5 would avoid or reduce potential impacts to special status birds and all nesting birds to a level considered less than significant.

Mammals

No burrows considered suitable for use by the federally listed Endangered and state listed Threatened SJKF were documented during the survey. Indirect impacts may occur to kit foxes potentially occupying the study area beyond the Project disturbance area during long-term Project activities, including increased light-pollution and restriction of movement across the Project site. Implementation of Mitigation Measures BIO-1, BIO-4, and BIO-6 would avoid or reduce potential impacts to the species to a level considered less than significant.

4.3 Natural Communities

The CNDDB records search did not identify any special status natural communities occurring in the Project region. The Project site consists of active agriculture, a non- natural community that is dominated by non-native, weedy species, and disturbed/barren areas. No sensitive natural communities were identified during the survey. Impacts to approximately 1.80 acres of active agriculture and disturbed areas would be considered less than significant. One riverine feature was identified in the NHD and NWI. Project implementation would not have direct or indirect impacts to this feature based on the distance from the proposed development.

4.4 Wildlife Movement

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. A functional network of connected habitats is essential to the continued existence of California's diverse species and natural communities in the face of both human land use and climate change. Terrestrial species must navigate a habitat landscape that meets their needs for breeding, feeding and shelter. Projects that introduce substantial barriers to movement of resident or migratory wildlife species or hinder the normal activities of wildlife require mitigation to offset Project effects.

The study area is surrounded by undeveloped areas and active agriculture with some natural habitats. Project implementation would not directly impact the area and development would not be expected to substantially inhibit wildlife movement through the area. The Project does not introduce significant features that would be expected to affect wildlife movement through surrounding natural habitats and impacts to wildlife movement are considered less than significant.

5.0 Recommendations

The following avoidance, minimization, and mitigation measures are recommended to reduce the anticipated impacts to the maximum extent feasible.

BIO-1 **Worker Environmental Awareness Program (WEAP)**. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with Project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the Project area. The specifics of this program shall include identification of the sensitive species and habitats, a

description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the Project. All employees shall sign a form documenting that they have attended the WEAP and understand the information presented to them. The form shall be submitted to the County Department of Planning and Building to document compliance prior to initiation of construction.

BIO-2 **Noxious Weed Species.** To prevent the potential spread of invasive botanical species identified within the Project site, all vehicles and equipment used at the site shall be cleaned of all dirt, mud, and plant debris prior to entering or exiting the site (e.g., driven over rumble strips) to prevent tracking of potential seed stock to or from the property. Rumble strips will also be regularly cleaned and maintained to prevent the accumulation of non-native seed stock.

BIO-3 **Crotch's Bumblebee Survey and Minimization Measures.** Within 30 days prior to initiation of ground disturbance between March and September, the Project footprint will be surveyed for Crotch's bumble bee using a photograph survey methodology. The site will be slowly walked by two biologists equipped with >8-megapixel point and shoot or DSLR cameras using transects to obtain 100% coverage of the project site. All insects observed during the survey will be photographed with attention to family Apidae (bees). All bees observed will be photographed to the greatest extent feasible without handling. Photographs should clearly show the entire top side of the abdomen, the side of the thorax/abdomen and the face/head. Several photos should be taken of each specimen to obtain an identification. If a bee is observed entering a burrow or other cavity, a GPS point should be recorded and attention should be focused on the cavity to determine if multiple individuals may be entering/exiting, indicating the potential presence of a colony. Biologists will submit photos to Bumble Bee Watch (www.bumblebeewatch.org), BeeSpotter (https://beespotter.org), or a similar website that employs bumble bee experts to verify the identifications. Qualified scientific experts may also be used to verify photographic records. CDFW will be notified as soon as possible if a *B. crotchii* observation is verified. If a *B. crotchii* colony is detected on the Project site, the colony will be mapped and avoided. No vegetation or soil disturbance will be permitted within a 50-foot radius of the colony. If avoidance is infeasible, CDFW will be consulted regarding potential conservation measures.

BIO-4 **Pre-construction Survey for San Joaquin Kit Fox.** A County-approved qualified biologist shall complete a preconstruction survey for San Joaquin kit fox no less than 14 days and no more than 30 days prior to the start of initial Project activities to ensure these special-status wildlife species are not present within proposed work areas. If dens are discovered, they shall be inspected to determine if they are currently occupied. If the qualified biologist determines that occupied San Joaquin kit fox dens may be present, an exclusion buffer shall be established in accordance with the distances recommended in the USFWS' 2011 recommendations. The USFWS shall be contacted for further guidance regarding any natal San Joaquin kit fox dens encountered. If avoidance is not possible during construction or continued operation, the County and CDFW shall be contacted for further guidance.

BIO-5 **Pre-construction Surveys for Nesting Raptors and Birds.** The applicant shall ensure the following actions are undertaken to avoid and minimize potential impacts to nesting birds: To the extent feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to avoid the nesting season and occur between September and January. For activities that cannot avoid the nesting season (February 15 to August 31), not more than 30 days prior to initiation of construction activities (e.g. mobilization and staging), a qualified biologist shall conduct preconstruction surveys for nesting raptors and other native nesting birds. The survey for the presence of nesting raptors shall cover all areas within the disturbance footprint plus a 500-foot buffer where access can be secured. Survey reports shall be submitted to the County Department of Planning and Building at least one week prior to initiating construction, and within one week of completing surveys for ongoing activities. If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50 to 300 feet based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest, and 500 feet for nests of fully protected species (such as white-tailed kite) and raptors. All buffers shall be marked using high-visibility flagging, fencing, and/or signage. No construction activities shall be allowed within the buffers until the young have fledged from the nest or the nest fails, unless approved by the qualified biologist. The qualified biologist shall confirm that breeding/nesting is complete and young have fledged the nest prior to removal of the buffer. Encroachment into the buffer shall be conducted at the discretion of the qualified biologist. Monitoring reports summarizing nest avoidance measures, including buffers, fledge dates, and documentation of the avoidance of fully protected species, if applicable,

shall be submitted to the County Department of Planning and Building on a monthly basis while nest buffers are in place or while activities are occurring within the specified buffer of an inactive nest of a fully protected species.

BIO-6 **Mitigation Measure 3: Lighting.** Any temporary construction lighting or permanent lighting introduced for the Project shall avoid nighttime illumination of potentially suitable habitat features for special-status species (i.e., off-site adjacent grasslands). Temporary construction lighting will be kept to the minimum amount necessary and shall be directed toward active work areas and away from open spaces and/or drainages. To minimize the effects of future exterior lighting on special-status wildlife species, all outdoor lighting fixtures shall be positioned and/or shielded to avoid direct lighting of off-site natural or semi-natural habitat areas.

6.0 Literature Cited

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7.0 APPENDIX A. Kit Fox Evaluation

Kit Fox Habitat Evaluation Form

(guidelines)

Cover Sheet

Project Name Estrella Vineyard Residence

Date 9/3/2021

Project Location* 5175 Martingale Circle (3 mi. East of Paso Robles Air Port.) San Luis Obispo County, CA

*Include project vicinity map and project boundary on copy of U.S.G.S. 7.5 minute map (size may be reduced)

U.S.G.S. Quad Map Name Estrella

Lat/Long or UTM coordinates (if available)

35.67976 N, 120.56378 W

Project Description:

Project Size 1.8 **Acres** **Amount of Kit Fox Habitat Affected** 1.8 **Acres**

Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type Vinyard 1.8 Acres

WHR type _____ _____ Acres

WHR type _____ _____ Acres

WHR type _____ _____ Acres

Comments: _____

Form Completed By: William J. Vanherweg

Rev 3/02
G:envdiv/forms/kit fox habitat

San Joaquin Kit Fox Habitat Evaluation form

Is the project area within 10 miles of a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in question 2 (A-E)

Yes - Continue with evaluation form
No - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al., 1998)

   A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20)
   B. Project is within core population (15)
   C. Project area is identified within satellite populations (12)
   D. Project area is within a corridor linking satellite populations (10)
   E. Project area is not within any of the previously described areas but is within known kit fox range (5)

2. Habitat characteristics of project area.

   A. Annual grassland or saltbush scrub present >50% of site (15)
   B. Grassland or saltbush scrub present but comprises<50% of project area (10)
   C. Oak savannah present on >50% of site (8)
   D. Fallow ag fields or grain/alfalfa crops (7)
   E. Orchards/vineyards (5)
   F. Intensively maintained row crops or suitable vegetation absent (0)

3. Isolation of project area.

   A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)
   B. Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)
   C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e., river, canal, aqueduct) (7)
   D. Project area surrounded by ag but less than 200 yards from habitat (5)
   E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

4. Potential for increased mortality as a result of project implementation. Mortality may come from direct (e.g., - construction related) or indirect (e.g., - vehicle strikes due to increases in post development traffic) sources.

   A. Increased mortality likely (10)
   B. Unknown mortality effects (5)
   C. No long term effect on mortality (0)

Revised 03-02

5. Amount of potential kit fox habitat affected.

A. >320 acres (10)
B. 160 - 319 acres (7)
C. 80 - 159 acres (5)
D. 40 - 79 acres (3)
(E) < 40 acres (1)

6. Results of project implementation.

(A) Project site will be permanently converted and will no longer support foxes (10)
B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)
C. Project area will be temporarily impacted and no maintenance necessary (5)
D. Project will result in changes to agricultural crops (2)
E. No habitat impacts (0)

7. Project Shape

A. Large Block (10)
(B.) Linear with > 40 foot right-of-way (5)
C. Linear with < 40 foot right-of-way (3)

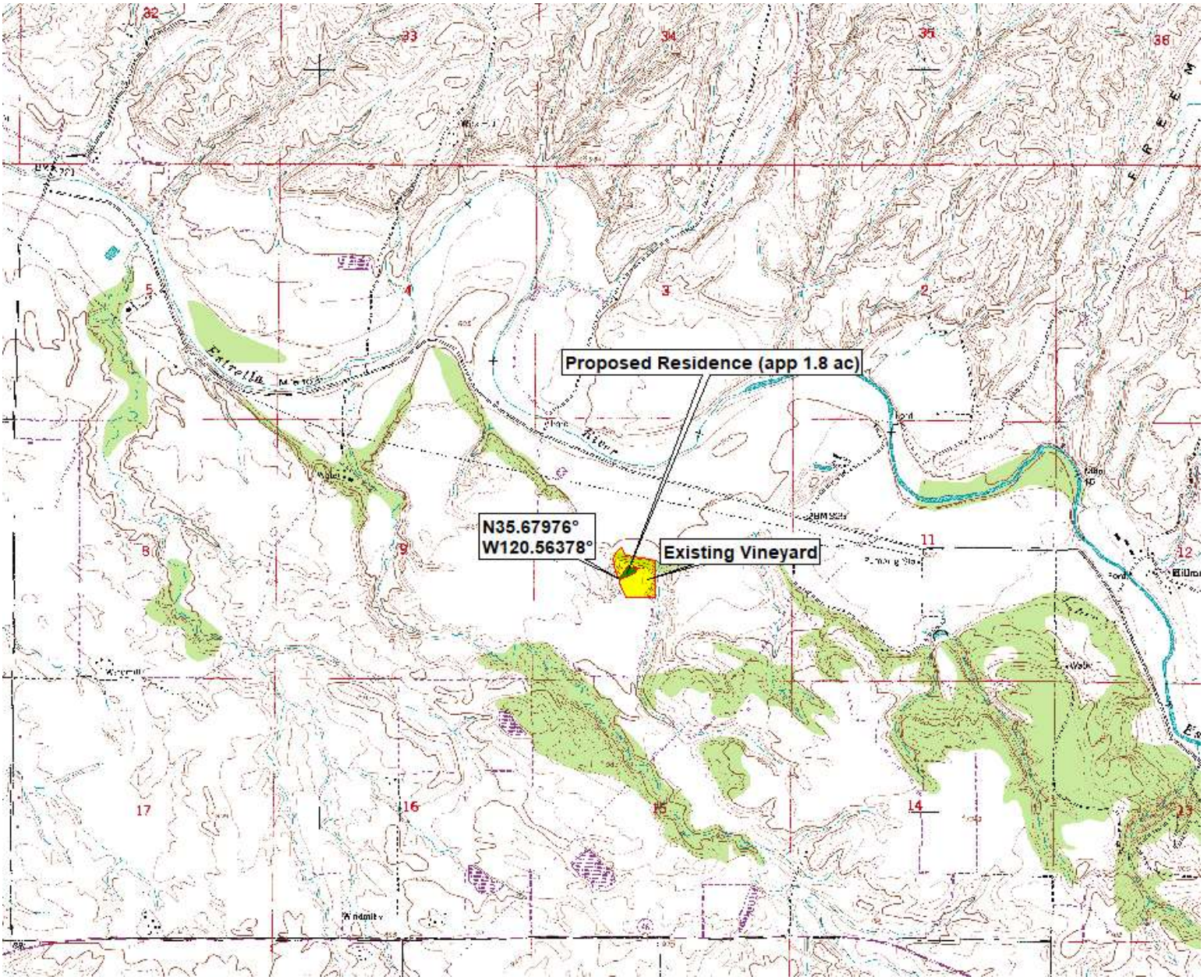
8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?

A. Yes (10)
(B.) No (0)

Scoring

1.	Recovery importance	10
2.	Habitat condition	5
3.	Isolation	5
4.	Mortality	0
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	5
8.	Recent observations	0
TOTAL		**36**

Revised 03/02-lpd


Proposed Residence (app 1.8 ac)
N35.67976°
W120.56378°
Existing Vineyard
Estrella River