

APPENDIX B

Biological Analysis Report

Lennar Tract 6262

BIOLOGICAL ANALYSIS REPORT

LENNAR TRACT 6262



MAY 2019



BIOLOGICAL ANALYSIS REPORT

LENNAR TRACT 6262, CLOVIS FRESNO COUNTY, CALIFORNIA

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
BAR	Biological Analysis Report
BIOS	Biogeography Information and Observation System
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWHR	California Wildlife Habitat Relationships
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

Quad Knopf, Inc. (QK) prepared this Biological Analysis Report (BAR) to evaluate the potential for special-status biological resources to be impacted by the construction of Tentative Tract 6262 in Clovis, Fresno County, California.

The proposed Project is located within the city of Clovis north of Herndon Avenue between North Peach Avenue and North Willow Avenue and includes the construction of 84 townhomes on approximately 12.5 acres.

A reconnaissance site visit and database review were completed by QK biologists to characterize the existing conditions on-site and determine the potential for special-status biological resources to occur on-site and be impacted by the Project.

The Project site is dominated by Annual Grassland, Barren, and Urban habitats, as defined by the California Department of Fish and Wildlife's California Wildlife Habitat Relationships system. No sensitive natural communities or aquatic resources are present. One special-status species, burrowing owl (*Athene cunicularia*) was determined to have potential to occur on-site. Nesting birds protected by the California Fish and Game Code and Migratory Bird Treaty Act also have the potential to occur on-site. Avoidance and minimization measures are prescribed including preactivity surveys and exclusion plan development and implementation for burrowing owls. With implementation of these measures, impacts to special-status biological resources would be less than significant.

SECTION 1 - INTRODUCTION

Quad Knopf, Inc. (QK) prepared this Biological Analysis Report (BAR) to evaluate the potential for special-status biological resources to be impacted by the construction of Tentative Tract 6262 (Project) in Clovis, Fresno County, California.

1.1 - Project Location

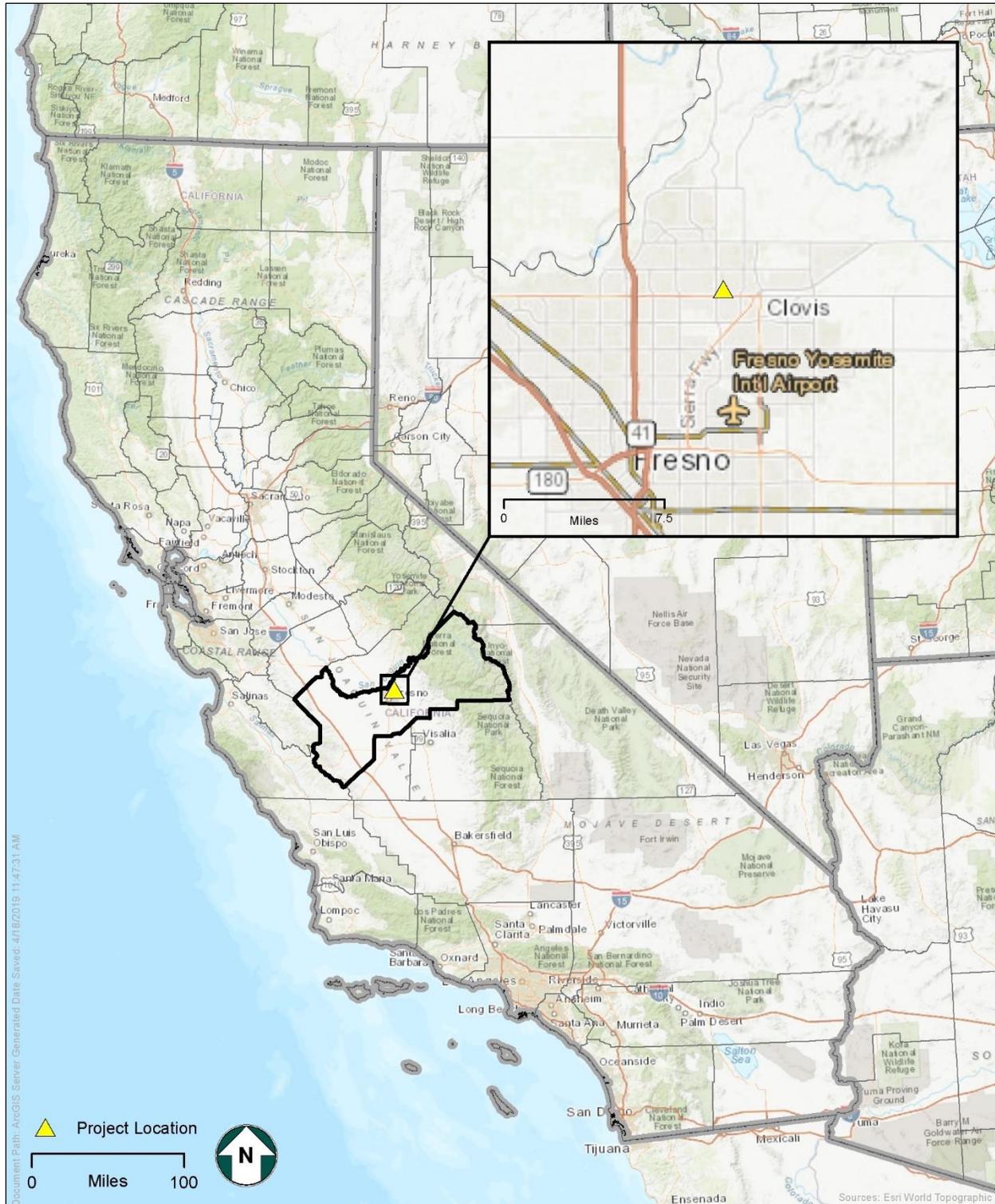
The proposed Project is located within the city of Clovis north of Herndon Avenue between North Peach Avenue and North Willow Avenue (Figures 1-1 and 1-2). The general latitude and longitude for the Project site is 36.840599° and -119.722885°. The Project is in the *Clovis, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle. The proposed Project will be built on Assessor's Parcel Numbers 561-26-10 and 561-26-17, which are zoned as R-2: Low Density Multiple Family Residential, 1 unit per 3,000 square feet.

1.2 - Project Description

The Project proposes approval of Vesting Tentative Subdivision Map Tract 6262. With full buildout, the approximately 12.5 acre site would be developed with up to 185 townhomes.

1.3 - Purpose, Goals, and Objectives

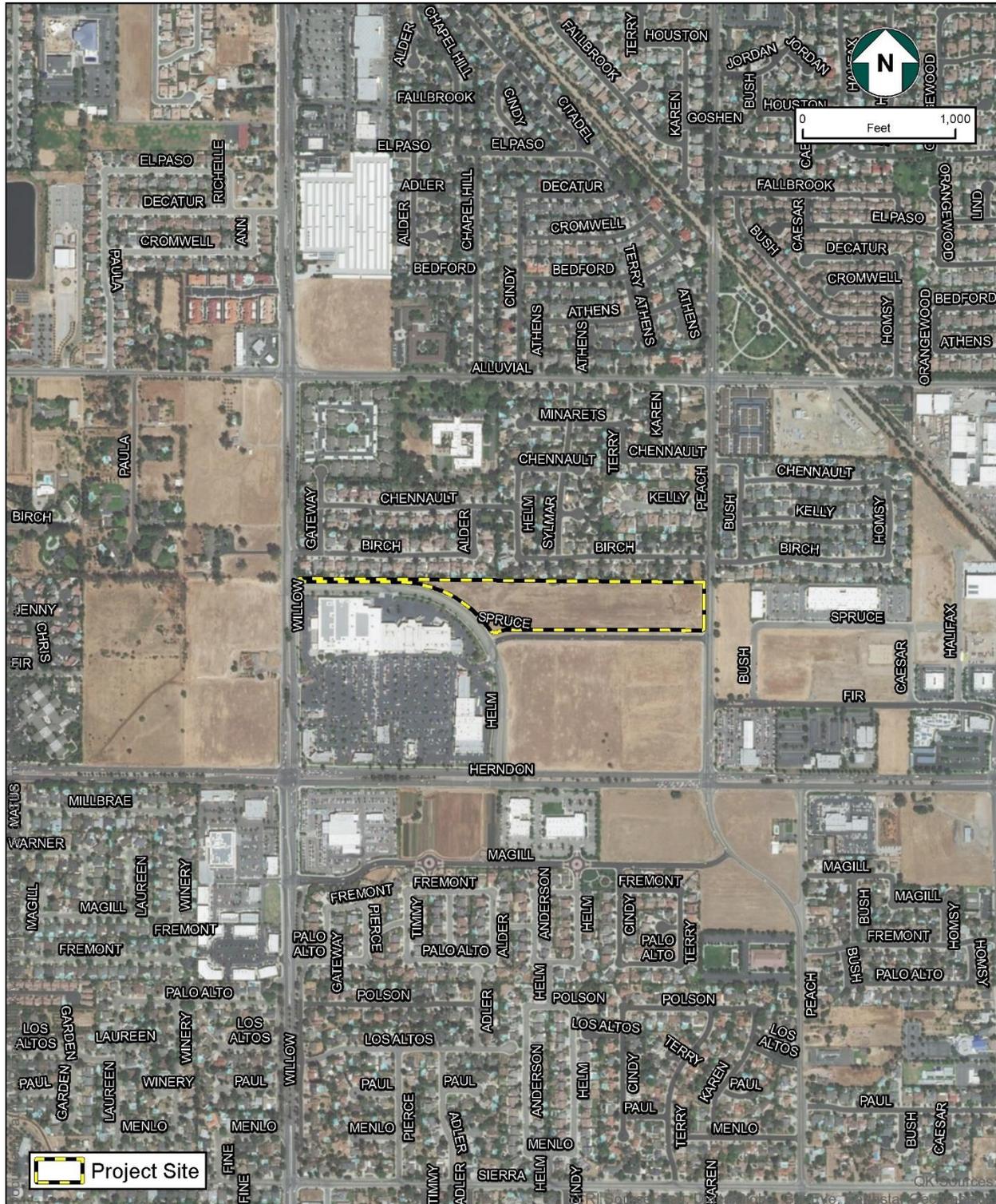
The purpose of this BAR is to identify where potential special-status biological resources may occur within the Project site, determine how those resources may be impacted by the proposed Project, and recommend avoidance, minimization, and mitigation measures to reduce the potential for impact to a less than significant level. This BAR has been prepared to support an analysis of biological conditions as required by the California Environmental Quality Act (CEQA) to support regulatory permit applications, if needed.



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Figure 1-1
Regional Map
Tract 6262
Clovis, Fresno County, California



 **Figure 1-2**
Project Location Map
Tract 6262
Clovis, Fresno County, California

SECTION 2 - METHODS

2.1 - Definition of Biological Study Area

For the purposes of this report, the Biological Study Area (BSA) is the Project disturbance footprint plus a 250-foot buffer (Figure 2-1).

2.2 - Definition of Special-Status Resources

For the purposes of this report, special-status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); species that are under review may be included if there is a reasonable expectation of listing within the life of the project,
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA),
- Species designated as Fully Protected, Species of Special Concern, or Watch List by the California Department of Fish and Wildlife (CDFW),
- Plant species with a California Rare Plant Rank (CRPR) in categories 1 or 2, and
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy.

The potential for each special-status species to occur in the study area was evaluated according to the following criteria:

- **No.** Habitat on and adjacent to the site is clearly unsuitable to meet the needs of the species (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Surveys did not detect species.
- **Yes.** Conditions on the site may, in some way, support a portion of the species ecology (foraging, reproduction, movement/migration). Surveys were conducted, but negative results do not exclude the potential for a species to occur.
- **Present.** Species was observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

Other sensitive biological resources evaluated in this report include federal and State wetlands and waters, fisheries resources, migratory corridors and linkages, designated critical habitats, and other resources that must be evaluated to comply with CEQA and NEPA.

2.3 - Literature Review and Database Analysis

The following sources were reviewed for information on special-status biological resources in the Project vicinity:

- CDFW's California Natural Diversity Database (CNDDDB; CDFW 2019a)
- CDFW's Biogeographic Information and Observation System (BIOS; CDFW 2019b)

- CDFW's California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer 1988)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2019)
- U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation system (USFWS 2019b)
- USFWS Critical Habitat Mapper (USFWS 2019a)
- USFWS National Wetlands Inventory (NWI; USFWS 2019c)
- USGS National Hydrography Dataset (NHD; USGS 2019)
- Federal Emergency Management Agency (FEMA) flood zone maps (FEMA 2019)
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2019a)
- Current and historical aerial imagery (Google LLC 2019)

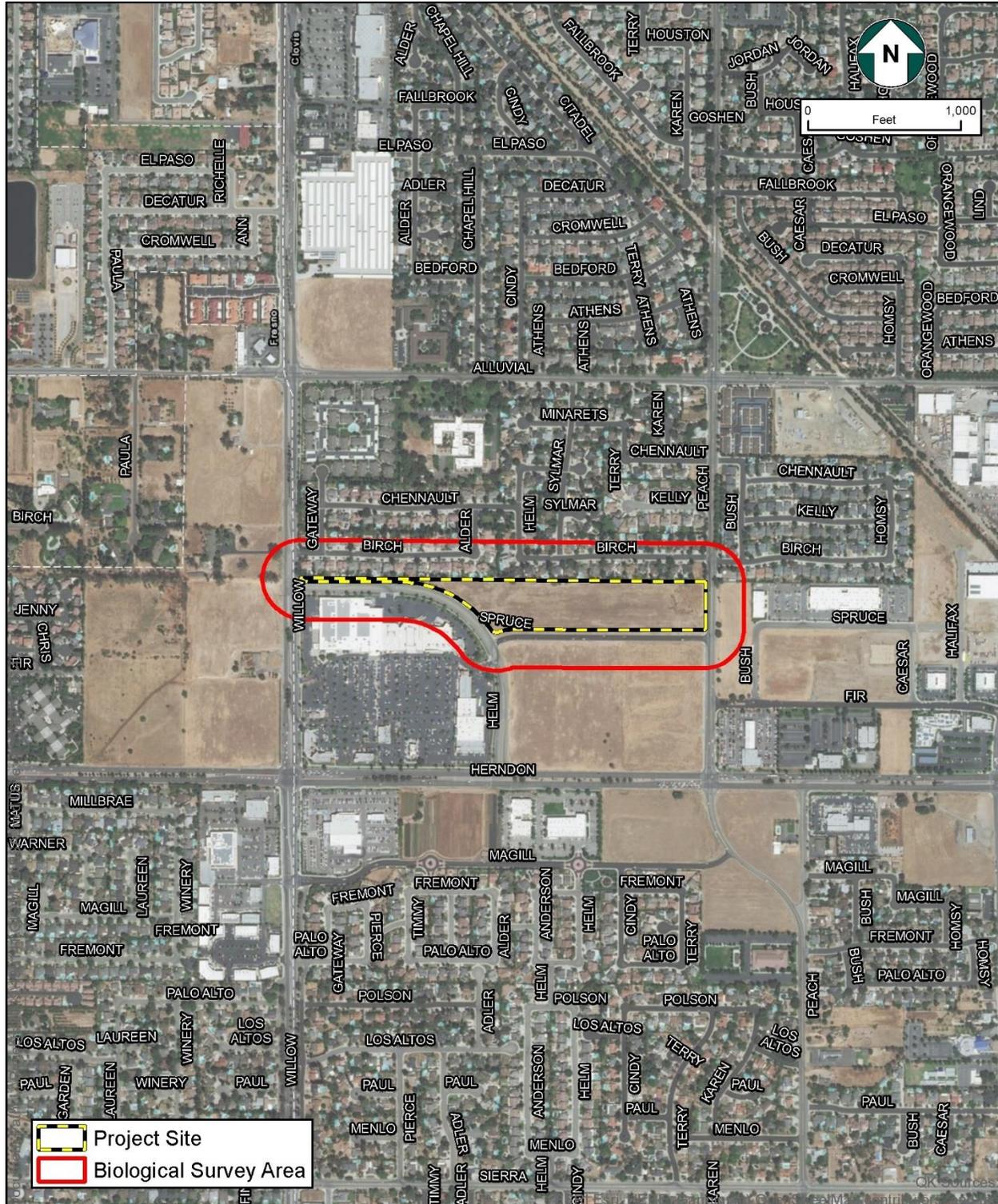
For each of these data sources, the search was focused on the *Clovis, California* USGS 7.5-minute quadrangle in which the Project is located, plus the surrounding eight (8) quadrangles. For the CNDDDB, a 10-mile search radius was used.

The CNDDDB provides element-specific spatial information on individually documented occurrences of special-status species and sensitive natural communities. Some of the information available for review in the CNDDDB is still undergoing review by the CDFW; these records are identified as unprocessed data. The CNPS database provides similar information as the CNDDDB, but at a much lower spatial resolution. Much of this information in these databases is obtained opportunistically and is often focused on protected lands or on lands where development has been proposed. Neither database represents a comprehensive survey for special-status resources in the region. As such, the absence of recorded occurrences in these databases at any specific location does not preclude the possibility that a special-status species could be present. The NWI and Web Soil Survey provide comprehensive data, but at a low resolution requiring confirmation in the field.

The results of the database inquiries were reviewed to develop a list of special-status resources that may be present within the vicinity of the Project. This list was then evaluated against the existing conditions observed during the reconnaissance site visit of the BSA to determine which special-status resources have the potential to occur, and then the potential for impacts to those resources as a result of implementation of the Project were evaluated.

2.4 - Reconnaissance-Level Field Surveys

A reconnaissance-level site survey of the BSA was conducted to characterize the existing biological conditions of the Project site and the greater BSA. The site visit consisted of a combination of windshield surveys and pedestrian transects. The survey effort resulted in 100% visual coverage of the BSA. All plant and animal species detected were recorded and identified to the lowest taxonomic level necessary to determine rarity. The locations of any special-status biological resources detected were documented using GPS.



 **Figure 2-1**
Biological Study Area
Tract 6262
Clovis, Fresno County, California

SECTION 3 - REGULATORY SETTING

Special-status resources that were studied and analyzed include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement areas, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for the regulation of general biological resources lies within the land use control and planning authority of local jurisdictions, in this instance, the County of Fresno.

Potential impacts to biological resources were analyzed based on the following list of statutes. Summaries of these statutes are provided in Appendix A.

- CEQA
- FESA
- CESA
- Federal Clean Water Act
- California Fish and Game Code
- Migratory Bird Treaty Act
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- Clovis General Plan 2014

SECTION 4 - ENVIRONMENTAL SETTING

This section identifies the regional and local environmental setting of the Project and describes existing baseline conditions. The environmental setting of the BSA was documented during a reconnaissance site survey (Table 4-1).

**Table 4-1
Field Survey Personnel and Timing.**

Date	Personnel	Time	Weather Conditions	Survey Type
4-23-2019	Carie Wingert	9:00 am – 9:50 am	clear; winds 1-2 mph; temps 71°F-73°F	Reconnaissance

4.1 - Physical Characteristics

The BSA is located within the city of Clovis which is dominated by residential and commercial development with few scattered undeveloped parcels remaining.

4.1.1 - TOPOGRAPHY

The BSA is located on the eastern floor of the Central Valley within the city of Clovis (Google LLC 2019). The topography of the BSA is relatively flat with elevational ranges from roughly 359 to 361 feet above mean sea level. There are several old dirt piles located in the eastern portion of the site. Representative photographs of the BSA are included in Appendix B.

4.1.2 - CLIMATE

The Project is located in an area with a Mediterranean climate of hot summers and mild, wet winters. Average high temperatures range from 54°F in January to 98°F in July, with daily temperatures exceeding 100°F several days in the summer (WWRC 2019). Average low temperatures range from 37°F in December to 65°F in July. Precipitation occurs primarily as rain, most of which falls from November to April, with an average of 10.9 inches of rainfall per year. Precipitation may also occur as a dense fog during the winter known as Tule fog. Rain rarely falls during the summer months.

4.1.3 - LAND USE

The Project site has historically been used for agricultural production but has been undeveloped for the past several decades as the city of Clovis grew and the parcel became surrounded by residential developments.

4.1.4 - SOILS

The BSA is underlain by five soil types (Figure 4-1; NRCS 2019).

Hanford coarse sandy loam. Hanford soils are very deep, well drained soils with negligible runoff and moderately rapid permeability (NRCS 2019a). They formed in moderately coarse textured alluvium, predominantly from granite and other quartz. These soils are typically found on stream bottoms, floodplains, and alluvial fans with slopes less than 15% at elevations from ~150 to ~3,500 feet above mean sea level (AMSL). They are used for growing fruits, vegetables, dairies, and urban development. Dominant natural vegetation includes annual grasses and forbs. This is not a hydric soil (NRCS 2019b).

Hanford sandy loam. This soil type is similar to Hanford coarse sandy loam except that the soils are composed of finer particulates.

Hanford fine sandy loam, clay loam substratum. This soil type differs from the other two Hanford soil map units in that it consists of a yet finer soil composition, with higher concentrations of loam and clay.

Tujunga loamy sand, 0 to 3 percent slopes. Tujunga soils are very deep, somewhat excessively drainage soils with negligible to low runoff and high saturation hydraulic conductivity (NRCS 2019a). They rarely flood. They formed in alluvium from granitic sources and are primarily found on floodplains and alluvial fans and are found at elevations from ~6 to ~2,000 feet AMSL. They are used for grazing, orchards, vineyards, and residential and commercial development. Natural vegetation consists primarily of annual grasses and forbs. This soil may be considered a hydric soil under criterion 4 (NRCS 2019b). Criterion 4 includes map unit components that are frequently flooded for long duration or very long duration during the growing season that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soils meet the definition of a hydric soil.

Visalia sandy loam, clay loam substratum, 0 to 3 percent slopes. Visalia soils are well drained soils with low runoff and moderately high permeability that is not prone to flooding or ponding (NRCS 2019a). It is formed of recent alluvium derived from granite at elevations from ~300 to ~400 feet AMSL. It is considered prime farmland if irrigated. This soil may be considered a hydric soil under criteria 2 and 4 (NRCS 2019b). Criterion 2 includes map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soil meets the definition of a hydric soil. Criterion 4 includes map unit components that are frequently flooded for long duration or very long duration during the growing season that: a) Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or b) Show evidence that the soils meet the definition of a hydric soil.

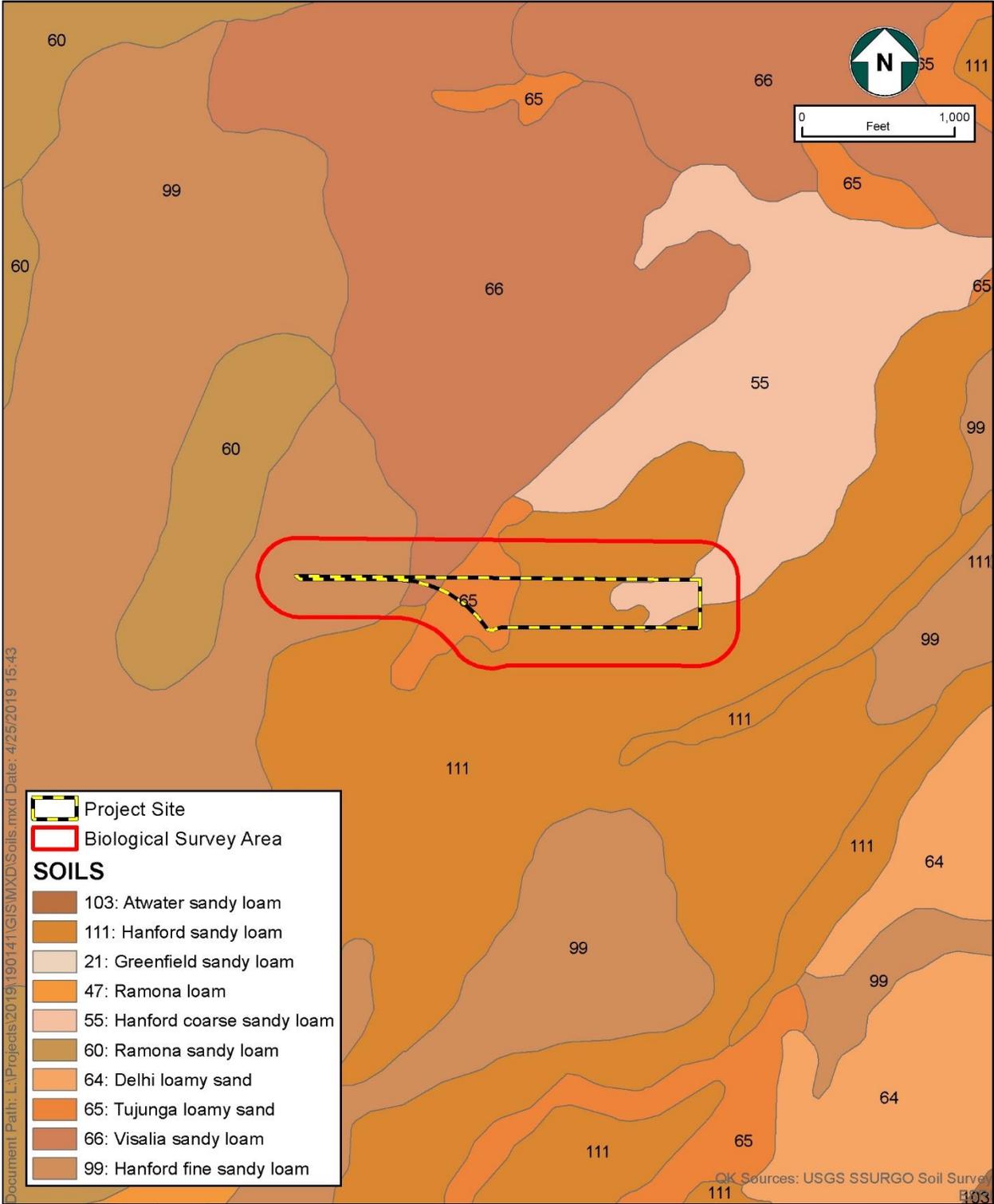


Figure 4-1
Soils
Tract 6262
Clovis, Fresno County, California

4.1.5 - HYDROLOGY

The BSA is located within the James Bypass watershed which drains water from the Sierra Nevada foothills towards the Fresno Slough (USGS 2019). The NHD identifies a blue line drainage along the eastern Project boundary called Helm Colonial Ditch (Figure 4-2). Historical aerial imagery shows this ditch was no longer present as of June 2009, when North Peach Avenue was widened, and a sidewalk was constructed in the location of the ditch. This ditch was not observed during the site visit and has likely been converted into a pipeline. No other drainages or aquatic features were observed.

The western portion of the BSA is within FEMA 0.2% Annual Chance Flood Hazard zones (FEMA 2019; Figure 4-3).

4.2 - Vegetation and Other Land Cover

Three habitat types were observed within the BSA: annual grassland, barren, and urban (Figure 4-4). These habitats are described below in the context of the CWHR (Mayer and Laudenslayer 1988). A complete list of plant species observed is presented in Appendix C.

Annual Grassland. The annual grassland accounted for approximately 9.1 acres within the BSA (1.7 acres within Project boundary) and consisted of annual forbs and grasses. No shrub or trees were present. Dominant plant species included ripgut (*Bromus diandrus*), barley (*Hordeum* spp.), red brome (*B. madritensis*), and fiddleneck (*Amsinckia* spp.). Much of the annual grassland within the BSA has been recently plowed.

Barren. Barren habitats accounted for approximately 10.6 acres within the BSA (9.8 acres within Project boundary) and consisted of plowed fields with little to no vegetation.

Urban. Urban habitat accounted for approximately 29.26 acres within the BSA (0.6 acres within Project boundary) and included developed areas with landscaped vegetation.

4.3 - General Wildlife Observations

Wildlife activity was low, consistent with urban areas. Animal species detected included California ground squirrels (*Otospermophilus beecheyi*), mourning doves (*Zenaida macroura*), northern mockingbirds (*Mimus polyglottos*), and house finches (*Haemorhous mexicanus*).

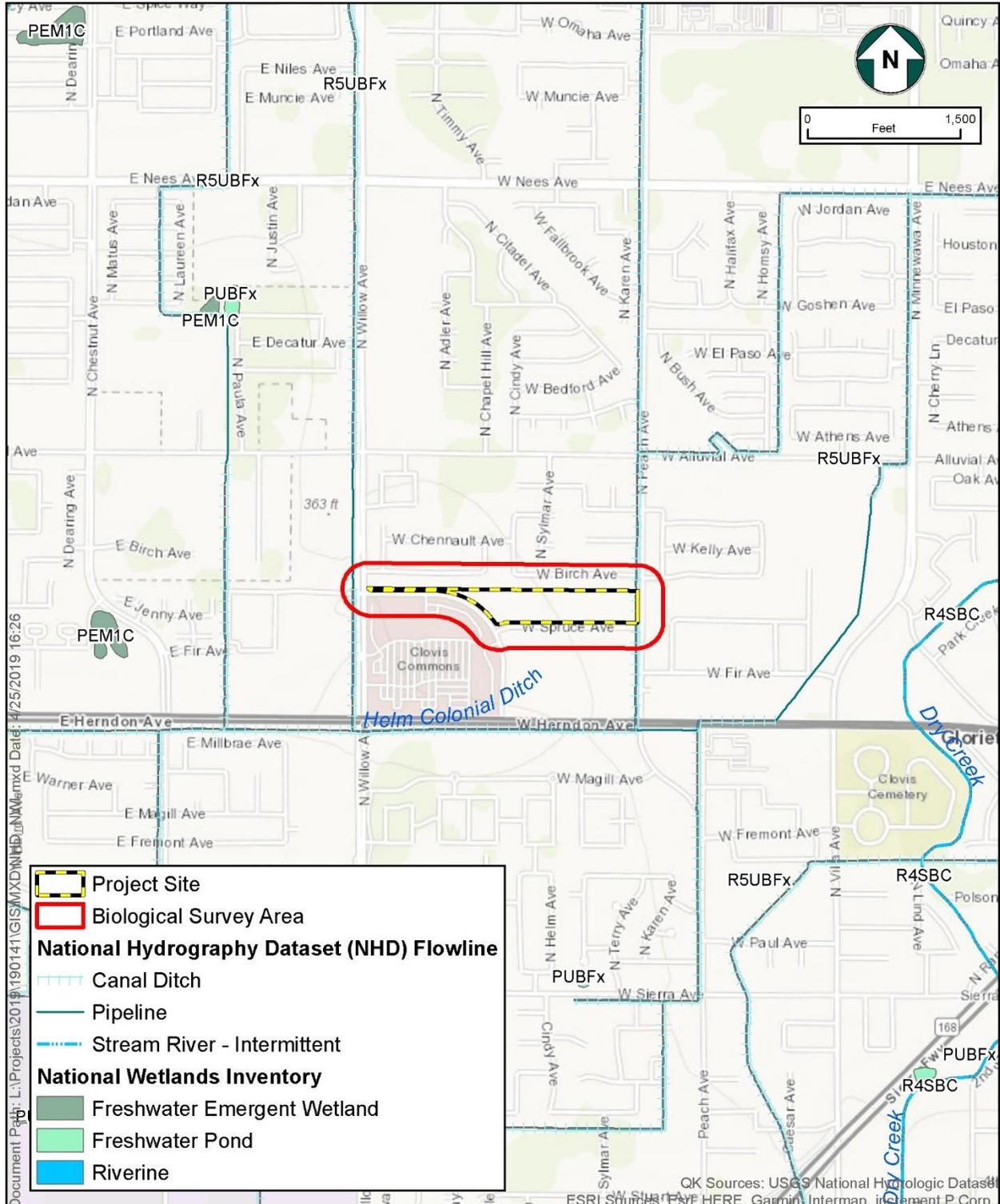


Figure 4-2
NWI and NHD Recorded Aquatic Resources
Tract 6262
Clovis, Fresno County, California



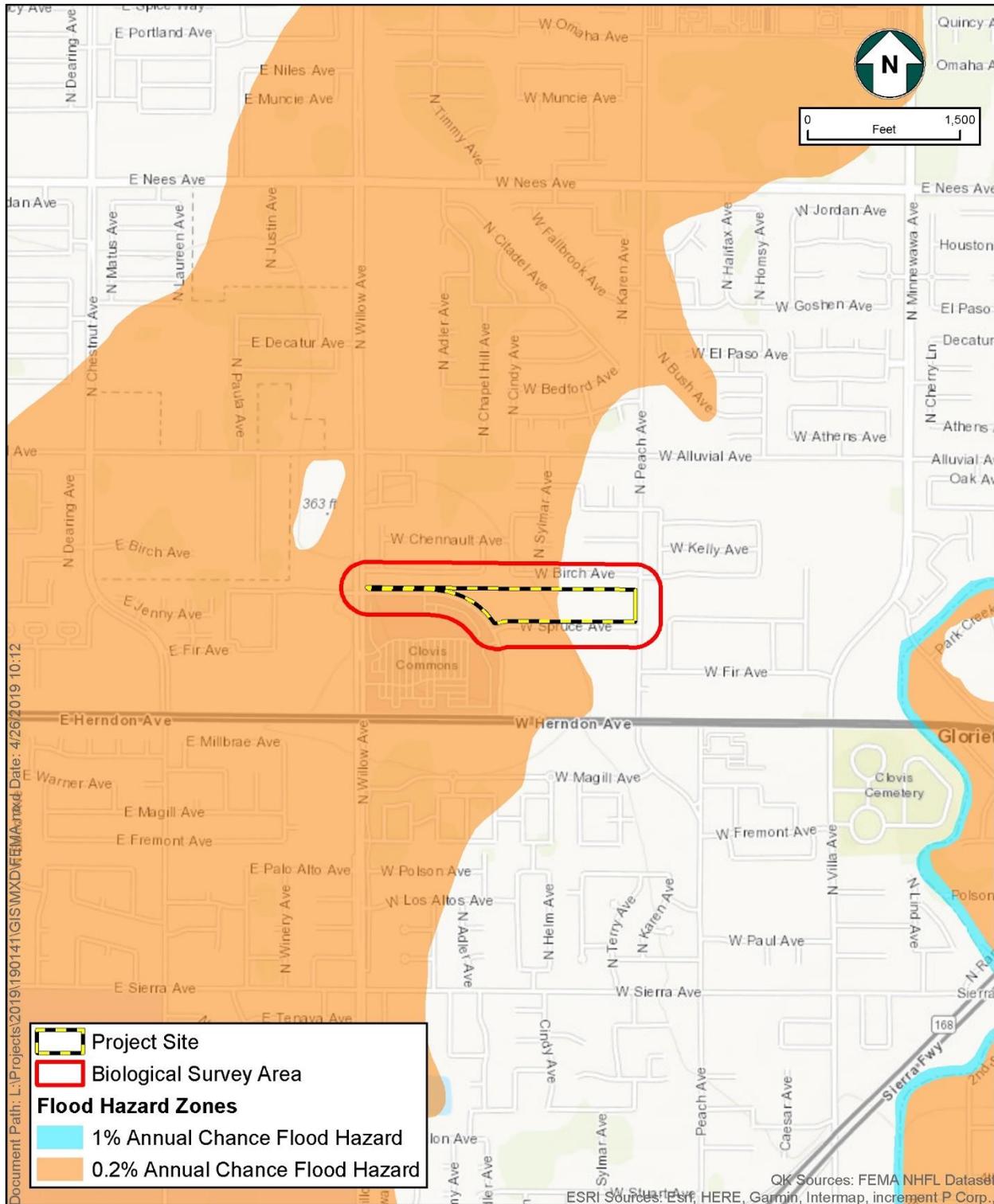


Figure 4-3
FEMA Flood Zone Map
Tract 6262
Clovis, Fresno County, California

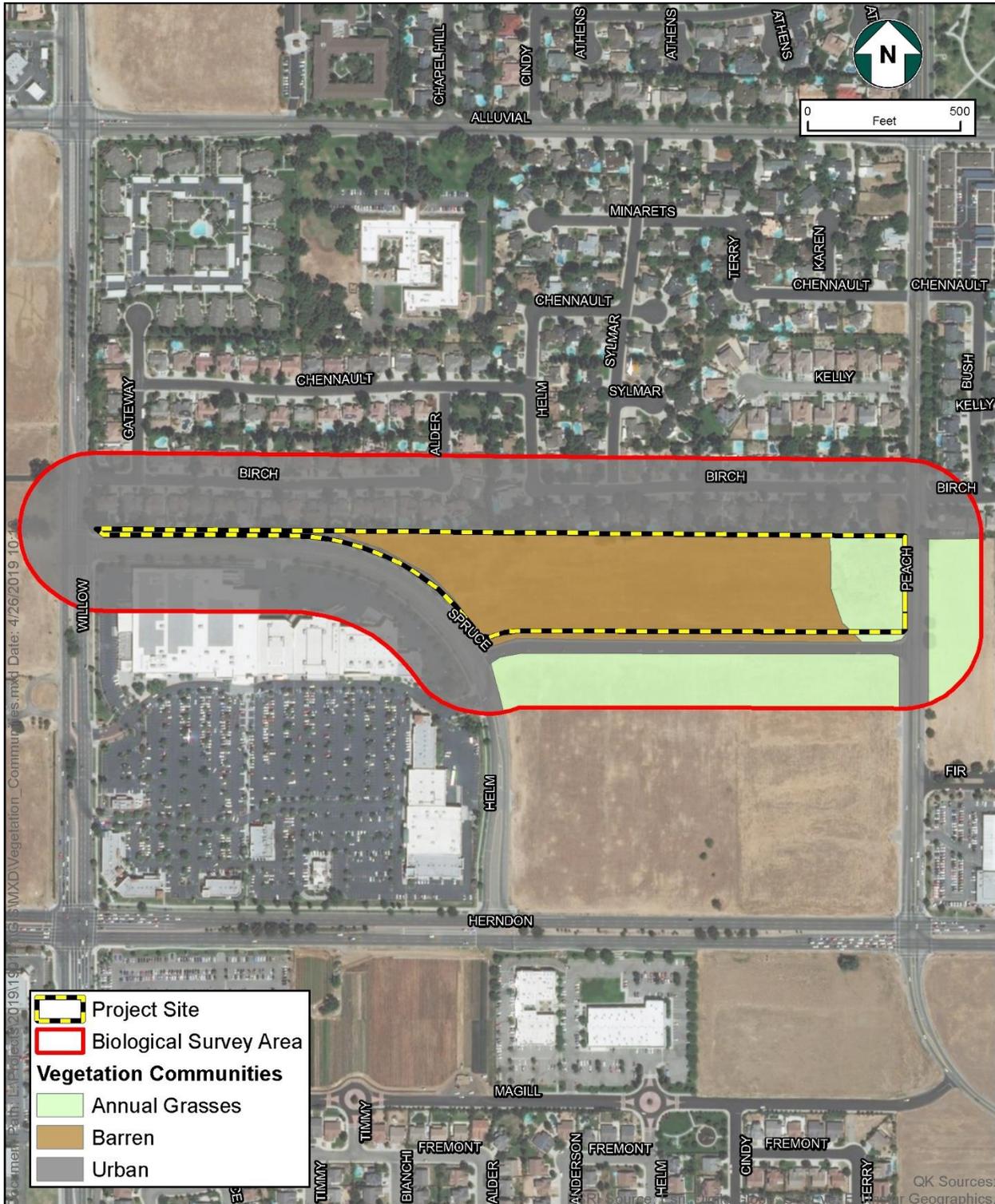


Figure 4-4
Vegetation Communities
Tract 6262
Clovis, Fresno County, California

SECTION 5 - SENSITIVE BIOLOGICAL RESOURCES

Local, State, and federal agencies regulate special-status species and other sensitive biological resources and require an assessment of their presence or potential for presence to be on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed on the Project site and evaluates the potential for the Project site to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB and CNPS, species occurrence records from other sites in the vicinity of the survey area, previous reports for the Project site, and the results of surveys of the Project site.

5.1 - Special-Status Species

Table 5-1 presents the list of special-status plant and animal species determined to have a potential to occur on-site and identifies if the Project may affect the species and threaten the viability of the species population. Each species is further discussed in the subsections below. The complete list of species evaluated for this Project is included in Appendix D.

**Table 5-1
Special-Status Species with Potential to Occur On-Site**

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Potentially Affected by Project? Yes/No	Viability Threat? Yes/No
Birds			
<i>Athene cunicularia</i> burrowing owl	-/- SSC	No	No

SSC State Species of Special Concern

5.1.1 - SPECIAL-STATUS PLANT SPECIES

The literature and database review identified 15 special-status plant species known or with potential to occur in the vicinity of the Project (Appendix D). None of these species have the potential to occur on-site due to the lack of suitable habitat conditions or the Project being located outside of the species' known range.

5.1.2 - SPECIAL-STATUS ANIMAL SPECIES

The literature and database review identified 21 special-status animal species known or with potential to occur in the vicinity of the Project (Appendix D). Of those, one (1) was determined to have a potential to occur on-site:

- **Burrowing owl** (*Athene cunicularia*) – state Species of Special Concern

Burrowing Owl

ATHENE CUNICULARIA

Status: State Species of Special Concern

Burrowing owls are found through much of California, primarily in arid and semi-arid habitats, including deserts (Poulin et al. 2011, Zeiner et al. 1990). Burrowing owls are the only species of owl in North America that use subterranean burrows for nesting and shelter. They prefer open habitats with few scattered shrubs or trees. In California, burrows used by this species are created by other fossorial mammals, especially California ground squirrels (*Otospermophilus beecheyi*). They are also the most diurnally active owl in North America, with peak activity levels during the crepuscular periods (dawn and dusk). Burrowing owls are known to occur in developed habitats, including urban and agricultural habitats, provided there are burrows available in relatively undisturbed areas (e.g., canals, drainage basins, abandoned railroad tracks). They primarily consume small rodents and insects, with rodents being particularly important during the breed season. Their diet will vary based on habitat conditions; the species has been observed hunting bats around parking lot light poles at night (Hoetker and Gobalet 1999). They have also been document traveling a mile or more to forage (Poulin et al. 2011). Primary threats to burrowing owls include habitat loss, degradation, and fragmentation, particularly where burrows are present (Poulin et al. 2011, Zeiner et al. 1988). Use of pesticides to reduce rodent and insect populations may threaten burrowing owls in urban and agricultural habitats caused by secondary poisoning transferred through their prey.

No burrowing owls or diagnostic signs of burrowing owls were observed on the Project site. Ground squirrel burrows were observed on-site and in the surrounding area and it is possible that a burrowing owl could be present on the site at some time in the future. The site could provide foraging opportunities if they are present elsewhere in the vicinity.

5.1.3 - OTHER PROTECTED SPECIES

Nesting Birds

No nesting birds were observed on the site at the time of the on-site biological examination. Habitat conditions within the BSA could support nesting migratory birds that specialize in ground nesting and could nest in trees at the western end of the Project site or within trees on adjacent parcels.

5.2 - Sensitive Natural Communities

5.2.1 - SENSITIVE PLANT COMMUNITIES

No sensitive plant communities were present within the BSA.

5.2.2 - CRITICAL HABITATS

No critical habitat is present within the BSA.

5.3 - Jurisdictional Aquatic Resources

The NWI shows an artificial drainage along the east side of the Project site (USFWS 2019c; Figure 4-2). This ditch is no longer present and has likely been converted into a pipeline. No other drainages or aquatic features were observed.

5.4 - Wildlife Movement

Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. Wildlife movement corridors can be large tracts of land that connect regionally important habitats that support wildlife in general, such as stop-over habitat that supports migrating birds or large contiguous natural habitats that support animals with very large home ranges (e.g., coyotes [*Canis latrans*], mule deer [*Odocoileus hemionus californicus*]). They can also be small scale movement corridors, such as riparian zones, that provide connectivity and cover to support movement at a local scale.

The Project is not located within an identified wildlife movement corridor and there are no features on site that would lend themselves specifically to wildlife movement (e.g., riparian corridors). The site is surrounded by residential and commercial development which are not conducive to wildlife movement.

5.5 - Resources Protected by Local Policies and Ordinances

There are no resources within the BSA that are protected by city policies for natural resources.

5.6 - Habitat Conservation Plans

The Project is located within an area covered by the PG&E San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). That HCP only applies to maintenance and operations of PG&E facilities.

SECTION 6 - IMPACT ANALYSIS & AVOIDANCE, MINIMIZATION, MEASURES

This section provides an analysis of the potential for biological resources to be impacted by the proposed Project. The analysis has been developed using the CEQA Appendix G questions, but also provides sufficient information to support NEPA documentation.

For the purposes of this analysis, it is assumed that the entire property will be developed for residential uses.

6.1 - Special-Status Species

The proposed project would have a significant effect on biological resources if it 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

6.1.1 - PROJECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES

No special-status plant species have potential to occur on-site due to the highly disturbed nature of the Project site from years of agricultural use. The Project will have no impact to special-status plant species.

6.1.2 - PROJECT IMPACTS TO SPECIAL-STATUS ANIMAL SPECIES

Impact Analysis

One special-status species was determined to have a potential to occur on-site: burrowing owl.

Western Burrowing Owl

Ground squirrel burrows suitable for burrowing owls were found during the reconnaissance survey. They were actively in use by ground squirrels and showed no evidence of use by burrowing owls; however, they may be used by burrowing owls at some time in the future. The Barren and Annual Grassland habitats on-site and in the vicinity could support foraging, and burrowing owls have been documented foraging for bats and insects around night lighting at shopping centers (Hoetker and Gobalet 1999). Impacts to burrowing owl would be limited to the loss of potential foraging habitat and possibly injury during construction of the Project if the species enters the Project site.

Nesting Birds

The BSA contains suitable habitat that could support a variety of ground nesting bird species protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Project activities adjacent to nesting birds could result in direct impacts to active nests from

noise and vibration caused by construction activities. The Project could also directly impact active nests if they are located in the trees on-site and if those trees are disturbed by the Project.

Avoidance, Minimization, and Avoidance Measures

The following measures are recommended to avoid, minimize, and reduce impacts to burrowing owls and nesting birds.

BIO- 1 Pre-activity Surveys for Burrowing Owl. Within 14 days of the start of Project activities in any specific area, a pre-activity survey should be conducted by a qualified biologist knowledgeable in the identification of burrowing owls. The surveys should cover the Project site plus a 250-foot buffer and should be phased with construction of the Project. Pedestrian surveys achieving 100% visual coverage should be conducted. Where access to adjacent parcels is not granted, visual inspections from the Project site and public accessways should be conducted. If no burrowing owls are observed, no further action is required. Survey efforts should be documented.

BIO -2 Avoidance and Minimization Measures for Burrowing Owls. If burrowing owls are detected on-site a no-work Environmentally Sensitive Area (ESA) buffer around the occupied burrow should be established in consultation with a qualified biologist. If the burrow is determined to be a nest burrow, the minimum buffer should be 100 feet. Smaller buffers may be utilized if the burrow is not being used as a nest. The ESA buffer should remain in place until the burrowing owl has left on its own. Once the owl has left, the burrow may be monitored using trail cameras. If no owls are detected for a minimum of 3 consecutive days/nights, the burrow may be hand excavated under the direct supervision of the biologist. All burrow tunnels must be hand excavated to their terminus before backfilling to ensure no burrowing owls or other animals are hiding inside.

Alternatively, burrowing owls can be passively excluded from a non-nest burrow through the use of one-way doors. Prior to engaging in passive exclusion activities, an Exclusion Plan should be prepared following the guidance outlined in the CDFW's *Staff Report on Burrowing Owl Mitigation* (2012). The Exclusion Plan should be submitted to the CDFW for review and approval prior to implementation. Once approved, one-way doors may be installed at non-nest burrows. The doors should be monitored for a minimum of three days to ensure the burrowing owls has left the burrow. The burrow may then be excavated as described above. If at any time during excavation a burrowing owl is detected within the burrow, excavation activities should immediately stop, and the one-way door reinstalled and monitored until the owl has left the burrow. Hand excavation may then resume. Exclusion efforts should be documented.

BIO- 3 **Pre-activity Nesting Bird Surveys.** If Project activities must occur during the nesting season (February 15 to August 31), pre-activity nesting bird surveys should be conducted within seven (7) days prior to the start of construction at the construction site plus a 250-foot buffer. The surveys should be phased with construction of the Project. If no active nests are found, no further action is required; however, note that nests may become active at any time throughout the summer, including when construction activities are occurring. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 100 feet to 250 feet may be required, as determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist. The biologist should have the ability to stop construction if nesting adults show sign of distress. Survey and monitoring efforts should be documented.

Significance After Mitigation. Implementation of the mitigation measures above will reduce Project impacts to special-status species to a less than significant level.

6.2 - Sensitive Natural Communities and Critical Habitat

The proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

The BSA does not overlap critical habitat and there are no sensitive natural communities present. Therefore, the Project would have no impacts to sensitive natural communities and no measures are warranted.

6.3 - Jurisdictional Aquatic Resources

The proposed project would have a significant effect on biological resources if it would:

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

One drainage feature is mapped in the NWI and NHD databases but is no longer present on-site. This drainage has likely been piped under North Peach Avenue and its adjacent sidewalk. There are no other aquatic features on-site. Therefore, no impacts to aquatic resources will occur and no measures are warranted.

6.4 - Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

- d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

The Project site does not intersect any regional or local wildlife movement corridors, nor does it support an important wildlife nursery site or any fisheries resources. No impacts to wildlife movements, nursery sites, or fisheries would occur and no measures are warranted.

6.5 - Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*

The City's General Plan includes policies for the preservation of important biological resources. The resources on-site are not important or otherwise significant. Development of the site would not result in impacts biological resources protected by city policy or ordinance and no measures are warranted.

6.6 - Adopted or Approved Plans

The proposed project would have a significant effect on biological resources if it would:

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

The Project is located within an area covered by the PG&E San Joaquin Valley Operation and Maintenance HCP. This HCP applies only to PG&E's activities and does not apply to the Project.

SECTION 7 - LIMITATIONS, ASSUMPTIONS, AND USE RELIANCE

This Biological Analysis Report has been prepared in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, and specified historical and literature sources. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile animal species could occupy the site on a transient basis, or re-establish populations in the future. No other guarantees or warranties, expressed or implied, are provided.

SECTION 8 - REFERENCES

- Calflora. 2019. *Information on wild California plants for conservation, education, and appreciation*. Berkeley, CA. Updated online and accessed via: www.calflora.org.
- California Department of Fish and Wildlife. 2018. *Special Animals List*. Biogeographic Data Branch, California Natural Diversity Database. November 2018.
- _____. 2019a. California Natural Diversity Database (CNDDDB) – Commercial version dated April 1, 2019. <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>.
- _____. 2019b. Biogeographic Information and Observation System (BIOS). Accessed April 2019 from www.wildlife.ca.gov/data/BIOS
- _____. 2019c. *Special Vascular Plants, Bryophytes, and Lichens List*. Biogeographic Data Branch, California Natural Diversity Database. March 2019.
- California Native Plant Society. 2019. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Updated online and accessed via: www.rareplants.cnps.org.
- Clovis, City of. 2014. General Plan. <https://cityofclovis.com/wp-content/uploads/2018/10/Clovis-General-Plan-2014.pdf>
- Federal Emergency Management Agency. 2019. FEMA flood map service center. Tulare County Unincorporated Areas. <https://msc.fema.gov/portal/search#searchresultsanchor>
- Google LLC. 2019. Google Earth Pro.
- Hoetker, G. M. and K. W. Gobalet. 1999. *Predation on Mexican free-tailed bats by burrowing owls in California*. Journal of Raptor Research 33(4):333-335.
- Mayer, K. E., and W. F. Laudenslayer, Jr. 1988. *A guide to wildlife habitat of California*. State of California, Resources Agency, Department of Fish and Wildlife. Sacramento, CA 166 pp.
- Poulin, R. G., L. D. Todd, E. A. Haug, B. A. Millsap, and M. S. Martell. 2011. Burrowing Owl (*Athene cunicularia*), version 2.0. In *The Birds of North America* (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.61>
- U.S. Geological Survey. 2019. National Hydrography Dataset. <https://www.usgs.gov/core-science-systems/ngp/national-hydrography>
- United States Department of Agricultural, Natural Resources Conservation Service. 2019a. Web Soil Survey. Accessed April 10, 2019. Soil Survey Area: Eastern Fresno County, California (CA654). Soil Survey Tabular Data: Version 10, September 12, 2018. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
- United States Department of Agriculture, Natural Resources Conservation Service. 2019b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. Accessed via: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>

- United States Fish and Wildlife Service (USFWS). 1973. The Endangered Species Act of 1973, as amended (16 U.S.C 1531 et seq.).
- _____. 1998. *Recovery plan for upland species of the San Joaquin Valley, California*. Region 1. Portland, OR. 319 pp.
- _____. 2010. *San Joaquin kit fox (Vulpes macrotis mutica) 5-year review: summary and evaluation*. Sacramento Fish and Wildlife Office, Sacramento, CA. 122 pp.
- _____. 2019a. Critical Habitat Portal. Available at:
<https://ecos.fws.gov/ecp/report/table/critical-habitat.html>
- _____. 2019b. Information for Planning and Consultation online project planning tool. Available at: <https://ecos.fws.gov/ipac/>
- _____. 2019c. National Wetlands Inventory Wetlands Mapper.
<https://www.fws.gov/wetlands/data/mapper.html>
- Western Regional Climate Center. 2019. Cooperative Climatological Data Summaries, NOAA Cooperative Station Fresno Yosemite Intl AP, California (043257).
<https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3083>
- Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1990. *California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III*. California Department of Fish and Wildlife.

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APPENDIX A

REGULATORY SETTING

TRACT 6262, CLOVIS, *FRESNO COUNTY, CALIFORNIA*

Regulatory Setting

Federal Laws and Regulations

Federal Endangered Species Act of 1973 (USC, Title 16, Sections 1531 -1543)

The federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. The FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA provides a program for the conservation and recovery of threatened and endangered species as well as the protection of designated critical habitat that USFWS determines is required for the survival and recovery of listed species.

Section 9 lists actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction of adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations (CCR) Title 50, Part 402. If an activity could result in "take" of a listed species as an incident of an otherwise lawful activity, then a biological opinion can be issued with an incidental take statement that exempts the activity from FESA's take prohibitions.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at CFR Title 50, Sections 13 and 17 for species under the jurisdiction of USFWS and CFR, Title 50, Sections 217, 220, and 222 for species under the jurisdiction of NMFS. Section 10 would apply to the Project if take of a species (as defined in Section 9) were determined to occur.

Section 4(a)(3) and (b)(2) of the FESA requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in section 3(5)(A) of the FESA: 1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special

management consideration or protection; and 2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

Migratory Bird Treaty Act (USC, Title 16, Sections 703 - 711)

The MBTA, first enacted in 1918, is a series of treaties that the United State has with Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (U.S. Code Title 16, Section 703). The MBTA currently includes several hundred species and includes all native birds.

BALD AND GOLDEN EAGLE PROTECTION ACT OF 1940 (USC, TITLE 16, SECTION 668)

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 protects bald eagles (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species and established civil penalties for violation of this act. Take of bald and golden eagles includes to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” To disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially inferring with normal breeding, feeding, or sheltering behavior. (Federal Register [FR], volume 72, page 31132; 50 CFR 22.3).

Federal Clean Water Act (USC, Title 33, Sections 1521 - 1376)

The Federal Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters. Section 401 requires that a Project applicant that is pursuing a federal license or permit allowing a discharge to waters of the U.S. to obtain State Certification of Water Quality, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S. Section 404 establishes a permit program administered by the United States Army Corps of Engineers (USACE) that regulates the discharge of the dredged or fill material into waters of the U.S., including wetlands. The USACA implementing regulations are found in CFR, Title 33, Sections 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Applicable State Laws and Regulations

California Environmental Quality Act (California Public Resources Code, Sections 21000 - 21178, and Title 14 CCR, Section 753, and Chapter 3, Sections 15000 - 15387)

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps guide the issuance of permits and approval of projects. Courts have interpreted CEQA to afford the fullest protection of the environment within the reasonable scope of the statutes. CEQA applies to all discretionary projects proposed to be conducted or approved by a State, County, or City agency, including private projects requiring discretionary government approval.

The purpose of CEQA is to disclose to the public the significant environmental effects of a proposed discretionary project; prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring; disclose to the public the agency decision making process to approve discretionary projects; enhance public participation in the environmental review process; and improve interagency coordination.

State CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species nonetheless may be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals.

California Endangered Species Act (California Fish and Game Code Section 2050 et seq.)

The California Endangered Species Act (CESA) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve Projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For Projects that would result in take of a species listed under the CESA, a project proponent would need to obtain a take permit under Section 2081(b). Alternatively, the CDFW has the option of issuing a Consistency Determination (Section 2080.1) for Projects that would affect a species listed under both the CESA and the FESA, as long as compliance with the FESA would satisfy the “fully mitigate” standard of CESA, and other applicable conditions.

Porter-Cologne Water Quality Control Act

Under Section 401 of the CWA, the RWQCB must certify that actions receiving authorization under Section 404 of the CWA also meet State water quality standards. The RWQCB regulates waters of the State under the authority of the Porter-Cologne Water Quality Control Act (Porter Cologne Act). The RWQCB requires Projects to avoid impacts to wetlands whenever feasible and requires that Projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. The RWQCB typically requires compensatory mitigation for impacts to wetlands and/or waters of the State. The RWQCB has jurisdiction over waters

deemed ‘isolated’ or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County (SWANCC) decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste into waters of the State, and such discharges are authorized through an Order of Waste Discharge (or waiver of discharge) from the RWQCB.

Various Sections of the California State and Fish and Game Code

SECTION 460 AND SECTIONS 4000-4003

Chapter 5 of the California Fish and Game Code (FGC) describes regulations concerning the take of furbearing mammals, including defining methods of take, seasons of take, bag and possession limits, and areas of the State where take is allowed. Section 4000-4003 defines furbearing mammals, and the issuance of permits by the Department. Sections 460 and 4000 identifies fisher, marten, river otter, desert kit fox and red fox as furbearing mammals, and Section 460 prohibits take of these species at any time. This section of the California Fish and Game Code (FGC) has historically been interpreted to apply to restriction on furbearer trapping permit but has recently been expanded by CDFW to apply to any forms of take and treated as if these species were listed under CESA.

SECTIONS 1600 THROUGH 1616

Under these sections of the FGC, a Project operator is required to notify CDFW prior to any Project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the California Code of Regulations, a “stream” is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events. Preliminary notification and Project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable Project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement.

SECTIONS 3511, 4700, 5050, AND 5515

The protection of fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the FGC. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species, except as allowed for in an approved Natural Communities Conservation Plan (NCCP), or through direct legislative action.

SECTIONS 1900 THROUGH 1913 - NATIVE PLANT PROTECTION ACT

California’s Native Plant Protection Act (NPPA) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provision of

the NPPA prohibit that taking of listed plants from the wild and require notification of CDFW at least ten days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. A Project proponent is required to conduct botanical inventories and consult with CDFW during Project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Local and Regional Laws, Regulations, and Policies

Clovis General Plan

Clovis’ General Plan Open Space and Conservation Element includes goals, policies, and implementation programs for preservation of natural resources including wetland and riparian areas, fish and wildlife habitat, and vegetation. Goal 2 is specifically aimed at the protection of natural resources.

**Table A-1
Open Space and Conservation Element
Clovis General Plan**

D. Wetland and Riparian Areas	
Goal 2	Natural, agricultural, and historic resources that are preserved and promoted as key features for civic pride and identity.
Policies	
Policy 2.1	Stewardship. Promote responsible planning and management of land and resources among property owners.
Policy 2.2	New development. Encourage new development to incorporate on-site natural resources and low impact development techniques.
Policy 2.3	Visual resources. Maintain public views of open spaces, parks, and natural features. Enhance views along roadways and trails. Preserve Clovis’ viewshed of the surrounding foothills and orient new development to capitalize on views of the Sierra Nevada.
Policy 2.4	Agricultural lands. Preserve the city’s agricultural legacy through the Agricultural land use designation, memorialize agricultural history and culture, and facilitate thoughtful conversion of lands to development.
Policy 2.5	Right to farm. Support, encourage, and protect agricultural operations within Clovis and recognize their right to farm.
Policy 2.6	Biological resources. Support the protection of biological resources through the conservation of high quality habitat area.
Policy 2.7	Native plants. Encourage the use of native and climate-appropriate plant species and prohibit the use of plant species known to be invasive.
Policy 2.8	Urban forest. Maintain and enhance a diverse and healthy urban forest on public and private lands

Policy 2.9	National and state historic resources. Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.
Policy 2.10	Local historic resources. Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.
Policy 2.11	Old Town. Prioritize the preservation of the historic character and resources of Old Town.
Policy 2.12	Public education. Support public education efforts for residents and visitors about the unique historic, natural, and cultural resources in Clovis.

Source: (Clovis 2014)

Local Ordinances

The City of Clovis municipal code includes tree protection standards (Chapter 9.30) that protects heritage trees, multi-trunk trees, and parkway trees throughout the city.

APPENDIX B

**REPRESENTATIVE PHOTOGRAPHS OF THE
TRACT 6262, CLOVIS, *FRESNO COUNTY, CALIFORNIA***



Photograph 1: View of the Project site along North Peach Avenue.
36.841144°, -119.720350°, looking south from northeast corner
Photograph taken by Carie Wingert on April 23, 2019.



Photograph 2: View of debris piles on Project site.
36.841144°, -119.720350°, looking southwest from northeast corner
Photograph taken by Carie Wingert on April 23, 2019.



Photograph 3: View of Project site along West Spruce Avenue.
36.840218°, -119.720344° looking west from southeast corner
Photograph taken by Carie Wingert on April 23, 2019.



Photograph 4: View of landscaped portion of Project site.
36.841139°, -119.726829° looking west
Photograph taken by Carie Wingert on April 23, 2019.

APPENDIX C

**PLANT AND ANIMAL SPECIES OBSERVED WITHIN THE BIOLOGICAL STUDY AREA
TRACT 6262, CLOVIS, *FRESNO COUNTY, CALIFORNIA***

Appendix C – Plant and Animal Species Observed within the BSA

**Table C-1
Plant Species Observed within the Biological Study Area on April 23, 2019
Tract 6262, Clovis, Fresno County, California**

Scientific Name	Common Name	Native/Introduced	Cal-IPC Rating
Herbs			
<i>Amsinckia</i> spp.	fiddleneck	Introduced	None
<i>Anthemis cotula</i>	dog fennel	Introduced	None
<i>Capsella bursa-pastoris</i>	Shepherd's purse	Introduced	None
<i>Erodium botrys</i>	broad leaf filaree	Introduced	Limited
<i>Eschscholzia californica</i>	California poppy	Native	N/A
<i>Malva parviflora</i>	cheeseweed mallow	Introduced	None
<i>Raphanus sativus</i>	wild radish	Introduced	Limited
<i>Salsola tragus</i>	Russian thistle	Introduced	Limited
<i>Sisymbrium orientale</i>	Indian hedge mustard	Introduced	None
Grasses			
<i>Avena barbata</i>	slender oat	Introduced	Moderate
<i>Bromus diandrus</i>	ripgut	Introduced	Moderate
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	Introduced	High
<i>Cynodon dactylon</i>	Bermuda grass	Introduced	Moderate
<i>Hordeum</i> spp.	barley	Introduced	Moderate

*Cal-IPC = California Invasive Plant Council.

Rating system: **High** = several ecological impacts; **Moderate** = substantial but not severe ecological impacts; **Limited** = minor ecological impacts or not enough information to justify higher score; **Alert** = species ranked as High or Moderate with limited distribution, but potential to spread; **Watch** = could pose a high risk of becoming invasive in the future.

**Table C-2
Animal Species Detected within the Biological Study Area on April 2, 2019
Tract 6262, Clovis, Fresno County, California**

Scientific Name	Common Name	Status	Native or Introduced
Amphibians			
Birds			
<i>Mimus polyglottos</i>	northern mockingbird	None	Native
<i>Zenaida macroura</i>	mourning dove	None	Native
<i>Haemorhous mexicanus</i>	house finch	None	Introduced
Mammals			
<i>Otospermophilus</i>	California ground squirrel	None	Native

APPENDIX D

**SPECIAL-STATUS SPECIES DATABASE SEARCH RESULTS FOR THE
TRACT 6262, CLOVIS, *FRESNO COUNTY, CALIFORNIA***

Table D-1
 Special-Status Plant Species in the Regional Vicinity of the Project Site
 Tract 6262, Clovis, Fresno County, California

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
Plants				
<i>Calycadenia hooveri</i> Hoover's calycadenia	-/- 1B.3	Annual herb; blooms July – September; occurs on rocky soils in cismontane woodland and valley and foothill grassland; elevation ~ 215-985 feet; threatened by development; documented primarily in eastern foothills of Central Valley.	No	Habitat is heavily and historically disturbed.
<i>Castilleja campestris</i> var. <i>succulenta</i> succulent owl's clover	T/E 1B.2	Annual herb (hemiparasitic); blooms April – May, sometimes as early as March; occurs vernal pools, swales and some seasonal wetlands, often on acidic soils; elevation ~165-2,460 feet; threatened by urban and agricultural development, flood control, grazing, and trampling; documented primarily on eastern Central Valley floor and foothills from Fresno County north.	No	No suitable aquatic habitat or soils present.
<i>Caulanthus californicus</i> California jewelflower	E/E 1B.1	Annual herb; blooms February to May; occurs in slightly alkaline sandy soils in chenopod scrub, valley and foothill grassland, and pinyon and juniper woodland; elevation ~200 to 3,280 feet; found in San Joaquin Valley, Carrizo Plain, and Cuyama Valley from Fresno County south to Santa Barbara County; many occurrences presumed extirpated; threatened by development, grazing, and competition from non-native plants.	No	No suitable soils or habitat present.
<i>Downingia pusilla</i> dwarf downingia	-/- 2B.2	Annual herb; blooms March-May; occurs in vernal pools and in moist conditions in valley and foothill grasslands; elevation ~3-1460 feet; threatened by development, grazing, non-native plants, vehicles, and industrial forestry; documented primarily on Central Valley floor and foothills from Fresno County north, and in coastal mountains north of the Bay area.	No	No suitable moist conditions present.

Appendix D – Special-Status Database Search Results

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Eryngium spinosepalum</i> spiny-sepaled button celery	-/- 1B.2	Annual or perennial herb; blooms April-June; occurs in vernal pools and moist areas in valley and foothill grasslands; elevation ~260-3,200 feet; threatened by development, grazing, road maintenance, hydrological alterations, and agriculture; documented primarily in foothills of Sierra Nevada with scattered occurrences on Central Valley floor and western foothills and lower mountains.	No	No suitable moist conditions present.
<i>Imperata brevifolia</i> California satintail	-/- 2B.1	Perennial rhizomatous herb; blooms September-May; occurs in mesic conditions in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali) and riparian scrub; elevation ~sea level to 4,000 feet; threatened by development and agriculture; documented from Butte County south to the Mexican border; some documented occurrences may be escaped ornamental plantings.	No	No suitable habitat present.
<i>Lagophylla dichotoma</i> forked hare-leaf	-/- 1B.1	Annual herb; blooms April-May; occurs in cismontane woodland, and valley and foothill grassland, sometimes on clay soils; elevation ~147 to 1,100 feet; threatened by vehicles and non-native plants; documented primarily on Sierra Nevada foothills and margins of Central Valley floor from Fresno north.	No	No suitable habitat present and site has been historically and heavily disturbed.
<i>Leptosiphon serrulatus</i> Madera leptosiphon	-/- 1B.2	Annual herb; blooms April-May; occurs in cismontane woodland and lower montane coniferous forest; elevation ~985 to 4,265 feet; threatened by road maintenance, exotic plant control, and erosion; documented occurrences from Mariposa County to Kern County, primarily in lower mountains and foothills of western Sierra Nevada; few occurrences on edges of alluvial fans in Madera and Fresno counties.	No	No suitable habitat present.
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	T/E 1B.1	Annual herb; blooms April to September; occurs in vernal pools; elevation ~32-2,500 feet; threatened by agricultural, development, overgrazing, channelization, and non-native plants; documented primarily on eastern Central Valley floor and foothills from Visalia north.	No	No vernal pools present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Orcuttia pilosa</i> hairy Orcutt grass	E/E 1B.1	Annual herb; blooms May to September; occurs in vernal pools; often in acidic and saline-alkaline soils; elevation ~150 to 655 feet; threatened by agriculture, urbanization, overgrazing, non-native plants, and trampling; only known from a few locations on the Central Valley floor and lower foothills in Madera, Merced, and Stanislaus counties, and the very northern portion of the valley in Butte, Glenn, and Tehama counties.	No	No vernal pools present.
<i>Pseudobahia bahiifolia</i> Hartweg's golden sunburst	E/E 1B.1	Annual herb; blooms March-April; occurs on clay soils in cismontane woodland and valley and foothill grasslands often in acidic conditions; elevation ~45 to 500 feet; threatened by development, agricultural, overgrazing, and trampling; many occurrences very small; documented primarily in Sierra Nevada foothills and valley floor margins from Fresno County north.	No	No suitable habitat present and site has been heavily and historically disturbed.
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	T/E 1B.1	Annual herb; bloom February-April; occurs on adobe clay in cismontane woodland and valley and foothill grassland; elevation ~295 to 2,625 feet; threatened by agriculture, grazing, development, non-native plants, road construction and maintenance, and flood control activities; documented in eastern San Joaquin Valley primarily on foothills and alluvial fans from Fresno County south to the Tehachapi mountains in Kern County.	No	No adobe clay soils present.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	-/- 1B.2	Perennial rhizomatous herb (emergent); blooms May-October, sometimes into November; occurs in assorted shallow freshwater marshes and swamps, and slow-moving waterways, in sandy loam and clay soils; elevation ~0 to 2,130 feet; threatened by grazing, development, recreational activities, non-native plants, road widening, and channel alteration/maintenance; documented primarily throughout Central Valley on valley floor and surrounding foothills.	No	No suitable aquatic habitat present.
<i>Tropidocarpum capparideum</i> caper-fruited tropidocarpum	-/- 1B.1	Annual herb; blooms March-April; occurs on alkaline hills in valley and foothill grassland; elevation ~3 to 1,500 feet; threatened by grazing, military activities, trampling, and non-native plants; documented in Fresno, San Luis Obispo, and Santa Barbara counties; other documented occurrences in San Francisco Bay area and northward considered extirpated.	No	No suitable alkaline conditions present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Tuctoria greenei</i> Greene's tuctoria	E/R 1B.1	Annual herb; blooms May-July, sometimes September; occurs in small or shallow vernal pools, primarily on Anita clay and Tuscan loam soils; elevation ~100 to 3510 feet; threatened by agriculture, urbanization, overgrazing, and habitat fragmentation; documented on Central Valley floor and surrounding foothills; many occurrences presumed extirpated.	No	No vernal pool habitat present.
Invertebrates				
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	T/-	Occur a variety of vernal pool habitats that range from small, clear pools to large, turbid and alkaline pools; more common in pools less than 0.05 acre, typically as part of larger vernal pool complexes; adults active from early December to early May; pools must hold water for at least 18 days, the minimum to complete the life cycle if temperatures are optimal; eggs laid in spring and persist through dry season as cysts; current California distribution includes the Central Valley and coast ranges; threatened by habitat loss, degradation, and fragmentation, and interference with vernal pool hydrology.	No	No vernal pool habitat present.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	T/- --	Closely associated with elderberry shrubs (<i>Sambucus</i> sp.) for food and reproduction; usually along rivers and streams; eggs laid on bark, and larvae hatch and burrow into the stems; adults eat elderberry leaves and flowers; stem diameter must be minimum one inch; exit holes in stems are most common methods for identification; ranges from southern Shasta County to Fresno County.	No	No elderberry shrubs present.
Fish				

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Mylopharodon conocephalus</i> hardhead	-/ SSC	Found in small to large streams in low- to mid-elevation in relatively undisturbed habitats; also in lakes or reservoirs; found in clear, cool, deep streams with a slow but present flow; bottom feeders that focus on invertebrates and aquatic plant material from stream substrates; spawning typically on gravel and rocky substrates; widely distributed: Sacramento-San Joaquin and Russian River drainages, Pit River in Modoc County to Kern River; in San Joaquin drainage can be found in tributary streams but rarely in valley reaches of the river; absent from Cosumnes River.	No	No aquatic habitat present.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	T/T WL	Occurs in ephemeral pools or ponds that mimic them, and that remain inundated for 12 weeks or more; can occupy artificial ponds (ranch stock ponds) if ponds are allowed to go dry in the summer; requires nearby upland habitat containing small mammal burrows or crevices that provide refugia; restricted to grasslands and low foothills; lives underground most of the year.	No	No aquatic habitat present. Old recorded occurrence from 1974 recorded to the northeast and considered extirpated. Dense and growing development in the area precludes species presence.
<i>Anniella pulchra</i> northern California legless lizard	-/ SSC	Secretive fossorial lizard found in many habitats, especially valley and foothill grassland, chaparral, coastal scrub, and coastal dune, most commonly associated with sandy or loose organic soils with leaf litter; elevation from near sea level to 6,000 feet; may hibernate in inland areas with colder winter temperatures; primarily associated with foothill and mountains from Ventura County north to San Joaquin and Contra Costa counties, and in the western Sierra Nevada foothills in Fresno and Tulare counties.	No	Grassland habitat present but has been heavily disturbed through regular plowing.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Spea hammondi</i> western spadefoot	-/ SSC	Species relies on vernal pools for breeding where predators cannot become established; open areas with sand or gravelly soils in a variety of habitats: grasslands, coastal scrub, woodlands, chaparral, sandy washes, lowland river floodplains, alkali flats, foothills, and mountains; endemic to California and northern Baja California; distribution from Redding south throughout Central Valley and foothills, throughout South Coast Ranges into coastal southern California to Transverse mountains and Peninsular mountains; elevation from sea level to 4,500 feet.	No	No suitable aquatic habitat present.
Reptiles				
<i>Arizona elegans occidentalis</i> California glossy snake	-/ SSC	Common throughout California, especially in desert habitats but also chaparral, sagebrush, valley and foothill hardwood, pine-juniper woodland, and annual grassland; elevation from below sea level to 6,000 feet; nocturnal; utilize small mammal burrows, rock outcrops, and loose soil for cover; prefer open sandy areas with scattered brush, or rocky areas; ranges from eastern part of San Francisco Bay Area south to northwestern Baja California, but absent from coast; may also be in Tehachapi Mountains and Santa Monica Mountains.	No	No suitable habitat present.
<i>Actinemys [=Emys] marmorata</i> western pond turtle	-/ SSC	Highly aquatic and diurnally active; found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with vegetation and rocky/muddy bottoms; wide variety of habitats; need basking areas near water (logs, rocks, vegetation mats, banks); may enter brackish water and even seawater; digs nest on land near water; range from north of San Francisco Bay area south, including Central Valley.	No	No suitable habitat present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Phrynosoma blainvillii</i> coast horned lizard	-/ SSC	Prefers sandy/loose soils in grassland, forests, woodlands, and open chaparral; often found along sand washes and dirt roads with scattered shrubs for refuge; specialized in consuming ants; distribution includes coastal California from Baja California north to the Bay Area, southeastern desert regions, southern Central Valley flats and foothills and surrounding mounts on drier, warmer slopes; threatened by habitat loss/fragmentation and spread of invasive ant species displacing native prey; elevation from sea level to 8,000 feet.	No	No suitable habitat present and site has been heavily and historically disturbed and lacks scattered shrubs.
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	-/E	Colonial breeder that prefers freshwater, emergent wetlands with tall, dense cattails or tules, but also thickets of willow, blackberry, wild rose, and tall herbs; breeding colonies are minimum ~50 pairs; forages in pastures, grain fields, and similar habitats near breeding areas.	No	No suitable habitat.
<i>Athene cunicularia</i> burrowing owl	-/ SSC	Occupies variety of open, semi-arid to arid habitats throughout central and southern California, including desert regions; prefers open habitats with few shrubs or trees; most active around sunrise and sunset; utilizes burrows constructed by mammals year-round for shelter and nesting; well documented in urban areas where patches of undeveloped areas are present (e.g., canals, airports, drainage basins), and in areas of dense agricultural development where, particularly where canals provide burrow habitat; forages primarily for rodents and insects within several miles of burrow, usually in open grassy habitats if available; has been observed hunting bats and insects around parking lot lights; threats include development resulting in habitat loss/fragmentation.	Yes	Ground squirrel burrows within BSA. CWHR shows predicted suitable habitat throughout the Fresno/Clovis area.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	T/E --	Nests in open riparian woodlands along broad lower flood bottoms of larger river systems; prefers willows, often mixed with cottonwood, with understory of blackberry, nettles or wild grape; nest most often placed in willows with cottonwoods used extensively for foraging; occasionally nests in orchards adjacent to river bottoms; migratory.	No	No suitable riparian habitat present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Buteo swainsoni</i> Swainson's hawk	-/T --	Occurs in grassland, desert and agricultural landscapes in the Central Valley and Antelope Valley; hawks may be resident or migrant; breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah; also observed breeding in large eucalyptus trees along freeways and in trees over rural residences surrounded by agriculture; may nest on ground if no suitable trees are available; nests are platform of sticks, bark, and fresh leaves at or near top of trees; breeds from late March to late August; forages in grassland, open scrub, and grain fields, primarily for rodents.	No	No suitable nesting habitat present.
<i>Vireo bellii pusillus</i> least Bell's vireo	E/E --	Summary resident in dense riparian habitat and lower portions of canyons in San Benito and Monterey counties; also along coast from Santa Barbara south, and along western edge of deserts; usually associated with willow, cottonwood, baccharis, blackberry, or mesquite; nests in willows or other shrub or small tree ~2-3 feet above ground, sometimes lower; winters in Mexico; species may be close to extinction.	No	No suitable riparian habitat present.
<i>Eremophila aspestris actia</i> California horned lark	-/ WL	Year-round resident in California; occurs in grasslands and deserts with open areas and low growing herbaceous vegetation or sometimes scattered low shrubs near seal to open alpine dwarf-shrub habitat above tree line; ground nester; builds grass-lined nest in cup-shaped depression on ground in the open; threatened by pesticide poisoning and habitat loss.	No	Site has been plowed regularly, precluding species from occurring, and much of site lacks vegetation needed for nests.
<i>Phalacrocorax auratus</i> double-crested cormorant	-/ WL	Common throughout North America and are considered winter transients in the Central Valley; winter months they are found near freshwater lakes and rivers, including freshwater, saltwater, and brackish waters; adapted to using poles and towers for nesting sites and foraging areas historically threatened pesticide (DDT) use but population numbers have increased since the DDT ban; threatened by habitat loss, nest site disturbance, and altered hydrology, including sea level rise.	No	No suitable aquatic habitat present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
Mammals				
<i>Dipodomys nitratooides exilis</i> Fresno kangaroo rat	E/E -	Occurs on alkali open grassland on bare alkaline clay-based soils; nocturnal species; burrows with tunnels approximately 12 to 15 inches below ground; threatened by predation and disease; historically occurred on the valley floor in Kings, Fresno, Madera, and Merced counties, but may be extirpated.	No	No suitable habitat present.
<i>Taxidea taxus</i> American badger	-/ SSC	Occurs mostly in open, drier stages of shrub, forest, and herbaceous habitats, with friable soils; feeds mostly on fossorial rodents; digs burrows for cover and reproduction; can dig new den each night; litters born mostly in March and April; somewhat tolerant of human activities but avoids cultivated agricultural habitats.	No	No suitable habitat present and no suitable burrows detected on-site.
<i>Antrozous pallidus</i> pallid bat	-/ SSC	Occurs throughout California in wide variety of habitats: grasslands, shrublands, woodlands, forests up through mixed conifer; most common in open, dry habitats with rocky areas for roosting; yearlong resident; feeds mainly on insects and arachnids on the ground or by gleaning; day roosts in caves, crevices, mines, and occasionally hollow trees and buildings, including bridges; night roosts in more open sites; maternity colonies form early April with young flying by July or August; needs water; very sensitive to disturbance of roosting sites.	No	No suitable habitat present.
<i>Eumops perotis californicus</i> western mastiff bat	-/ SSC	Occurs in open, semi-arid to arid habitats throughout southeastern San Joaquin Valley and Coast Ranges from Monterey County southward; also in urban areas; feeds on insects captured in flight; roosts in cliff faces, high buildings, trees, and tunnels; nursery roosts most often in tight rock crevices or crevices in buildings; maternity season begins in March with young flying on their own by September.	No	No suitable habitat present.

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Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	E/T	Endemic to the Central Valley; found primarily in San Joaquin Valley, Carrizo Plain, Salinas Valley, Cuyama Valley, and other small valleys in western foothills; occurs in arid to semi-arid grasslands, open shrublands, savannahs, and grazed lands with loose-textured soils; highly adaptable and documented in urban developed areas; uses burrows year-round for shelter, escape from predators, and rearing young; will use man-made structures, such as pipes, for denning; feeds primarily on small mammals, but will also consume birds, reptiles, insects, and scavenge for human food; intensively-maintained agricultural areas avoided; threatened by habitat loss and fragmentation, vehicle strikes, and disease; current mange outbreak in urban population in Bakersfield and in nearby natural areas.	No	No suitable burrows present. Foxes seen in this part of the Fresno/Clovis area are most likely gray fox and red fox.
<u>CRPR (California Rare Plant Rank):</u>		FE	Federally Endangered	
1A	Presumed Extinct in California	FT	Federally Threatened	
1B	Rare, Threatened, or Endangered in California and elsewhere	FC	Federal Candidate Species	
2A	Plants presumed extirpated in California, but more common elsewhere	FS	Federally Sensitive	
2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere	SE	State Endangered	
<u>CRPR Threat Code Extension:</u>		ST	State Threatened	
.1	Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)	SC	State Candidate	
.2	Fairly endangered in California (20-80% occurrences threatened)	SS	State Sensitive	
.3	Not very endangered in California (<20% of occurrences threatened)	SSC	State Species of Special Concern	
		SFP	State Fully Protected	
		SR	State Rare	
		WL	Watch List	