



City of Reedley Annexation 2020-01 Project

Biological Resources Assessment

prepared for

City of Reedley

Community Development Department
1733 Ninth Street
Reedley, California 93654
Contact: Ellen Moore
Via email: ellen.moore@reedley.ca.gov

prepared by

Rincon Consultants, Inc.

7080 North Whitney Avenue, #101
Fresno, California 93720

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RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

Table of Contents

Executive Summary	1
1 Introduction	3
1.1 Project Location	3
1.2 Project Description.....	3
2 Methodology	7
2.1 Regulatory Overview.....	7
2.2 Study Area	8
2.3 Literature Review	8
2.4 Field Reconnaissance Survey	9
3 Existing Conditions.....	10
3.1 Physical Characteristics	10
3.2 Vegetation and Land Cover Types	12
3.3 General Wildlife	13
4 Sensitive Biological Resources	15
4.1 Special-status Species	16
4.2 Sensitive Plant Communities and Critical Habitats	19
4.3 Jurisdictional Waters and Wetlands	19
4.4 Wildlife Movement	20
4.5 Resources Protected by Local Policies and Ordinances.....	20
4.6 Habitat Conservation Plans.....	20
5 Impact Analysis and Mitigation Measures.....	21
5.1 Special-Status Species	21
5.2 Jurisdictional Waters and Wetlands	26
5.3 Sensitive Plant Communities	27
5.4 Wildlife Movement	27
5.5 Local Policies and Ordinances.....	28
5.6 Adopted or Approved Plans.....	28
6 Limitations, Assumptions, and Use Reliance	29
7 References	30
8 List of Preparers.....	32

Tables

Table 1	Wildlife Species with Potential to Occur within the Study Area.....	16
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Figures

Figure 1	Regional Location	5
Figure 2	Study Area	6
Figure 3	Soils Map	11
Figure 4	Biological Resources.....	14

Appendices

Appendix A	Regulatory Setting
Appendix B	Site Photographs
Appendix C	Floral and Faunal Compendium
Appendix D	Special-status Species Evaluation Tables

Executive Summary

This document provides the findings of a Biological Resources Assessment (BRA) prepared by Rincon Consultants, Inc. for the City of Reedley Annexation 2020-01 Project. This report was prepared to document the existing conditions on the project site and determine potential impacts to sensitive biological resources based upon proposed project plans.

The project site is located in the San Joaquin Valley, immediately west of the Sierra Nevada foothills in unincorporated Fresno County, adjacent to the City of Reedley, California. The proposed project consists of the annexation of six parcels into the City of Reedley (approximately 58 acres).

Approximately 32 of the 58 acres would be pre-zoned into a Central and Community Commercial (CC) zone district and approximately 11 acres would be pre-zoned to the One Family Residential (R-1-6) zone district. The remaining area, approximately 15 acres along the Kings River and riparian corridor, would be pre-zoned to the Resource Conservation and Open Space (RCO) zone district. The designated Conservation and Open Space zone is located west of the study area and consists mainly of native and non-native vegetation. Agricultural fields are present along the east side of the riparian corridor, along with ruderal fields located northeast of the corridor. Overall conditions of the area were highly disturbed by agricultural use and homeless encampments along the Kings River.

Rincon assessed the potential for 39 special-status species (20 plant species and 19 wildlife species) to occur within the vicinity of the project site. One special-status plant species, Sanford's Arrowhead (*Sagittaria sanfordii*), has low potential to occur in the project site. Five special-status wildlife species have potential to occur in the project site. Four of these species have a low potential to occur: Burrowing owl (*Athene cunicularia*, California Department of Fish and Wildlife [CDFW] Species of Special Concern), San Joaquin kit fox (*Vulpes macrotis mutica*, CDFW federally endangered and state threatened), Swainson's hawk (*Buteo swainsoni*, state threatened), and Western pond turtle (*Emys marmorata*, CDFW Species of Special Concern). One species has a high potential to occur: Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, federally threatened). None of these species were observed on site during the field reconnaissance survey on December 3, 2020. As a result of implementation of the project, sensitive species (including nesting birds) within the project area could be impacted by the loss of/injury to individuals, disturbance of breeding activities, disturbance to habitat, and/or construction noise and other human disturbances.

One natural vegetation community is considered sensitive: Valley Oak *Quercus labata* Forest and Woodland (CNPS 2020b). Vegetation along the Kings River and riparian corridor have many important uses, including providing habitat for sensitive plant and animal species. No development is proposed to take place within the Kings River and riparian corridor; therefore, potential project impacts to these sensitive resources would be less than significant.

One regional wildlife corridor is mapped within the project area. The Kings River is a significant corridor for wildlife movement. Corridors can significantly increase available habitat for wildlife when new developments take up surrounding areas. No development is proposed to take place within the riparian corridor, and it will be a designated Conservation and Open Space zone.

One perennial river (the Kings River) and one canal ditch (West Reedley Ditch) are located within the project site. The Kings River is a traditionally navigable waterway and has a defined bed and bank; therefore, this feature falls under the jurisdiction of the United States Army Corps of Engineers

(USACE), CDFW, and the Regional Water Quality Control Board (RWQCB). West Reedley Ditch contained standing water and hydrophytic plant species at the time of the site survey but is man-made and excavated in upland areas with no apparent connectivity to the Kings River. Therefore, this feature may fall under jurisdiction of the CDFW and/or the RWQCB but is not likely to be under the jurisdiction of USACE. Under the proposed project the Kings River and riparian corridor would be located in the RCO zone; therefore, impacts to this feature would only occur through encroachment or accidental release (spills/runoff) during construction. Impacts to West Reedley Ditch may also occur from accidental release or diversion to underground stormwater system.

1 Introduction

Rincon Consultants, Inc. (Rincon) has prepared a Biological Resources Assessment (BRA) for the City of Reedley Annexation 2020-01 Project (project) within southern Fresno County, California (Figure 1). This BRA documents the current existing conditions within the project site and evaluates the potential for project-related impacts to biological resources. The proposed project site includes approximately 58-acres that is located on land currently used for agriculture and a portion of the King's River. This BRA has been prepared to support the California Environmental Quality Act (CEQA) environmental review for the Reedley Annexation 2020-01 Project.

1.1 Project Location

The project is located within southern Fresno County in the San Joaquin Valley of California; however, the project is within the City of Reedley's Sphere of Influence (SOI). As shown in Figure 1, the project is located Adjacent to the City of Reedley, and is bordered on three sides by City limits. The site is approximately 11.3 miles east of State Route 99 and approximately 9.1 miles south of the State Route 180. The project site is within the *Reedley, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle (USGS, 2020). Fresno County Assessor's Parcel Numbers (APNs): 368-350-17, 368-350-31, 368-350-32, 368-350-33, 365-072-30T, and 365-072-31. Specifically, the project runs parallel to the east side of the Kings River, north of residential homes, west of commercial buildings, and is directly south of Manning Avenue (Figure 2). The project site is currently used for agriculture, including row crops and orchards.

1.2 Project Description

The proposed project would consist of three components:

- Approval of the annexation of six parcels into the City of Reedley (Annexation Application No. 2020-01),
- Pre-zone approximately 58 acres into the City (Pre-Zone Application No. 2020-01), and
- Develop approximately 11 acres for commercial use as part of a master plan for the project site (Site Plan Review Application No. 2020-01).

Annexation Application No. 2020-01: The project would annex four parcels (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33) approximately 58 acres from the County of Fresno and a portion of the King's River (APNs 365-072-30T and 365-072-31) into the City of Reedley. The proposed annexation is adjacent to the existing City of Reedley City Limits on the north, south and east sides. Along the western boundary of the annexation area there is an approximate 1,000-foot opening located in the southwesterly corner of the subject territory that serves as the connection point to the County of Fresno. The proposed annexation is within the City of Reedley's adopted SOI, and the subject property has a Community Commercial, Low Density Residential, and Open Space Planned Land Use Designation pursuant to the City of Reedley 2030 General Plan. The proposed annexation is an area that is substantially surrounded by the existing City of Reedley City Limits, development is imminent, and it does not conflict with the goals and policies of the Cortese-Knox-Hertzberg Act to promote the planned, orderly, efficient development of an area.

Pre-Zone Application No. 2020-01: The project would pre-zone approximately 58 acres as part of the annexation application, this pre-zone would be consistent with the City of Reedley's 2030 General Plan. Approximately 32 of the 58 acres would be pre-zoned into a Central and Community Commercial (CC) zone district, approximately 11 acres would be pre-zoned to the One Family Residential (R-1-6) zone district, and approximately 15 acres, which includes a portion of the Kings River, would be pre-zoned to the Resource Conservation and Open Space (RCO) zone district.

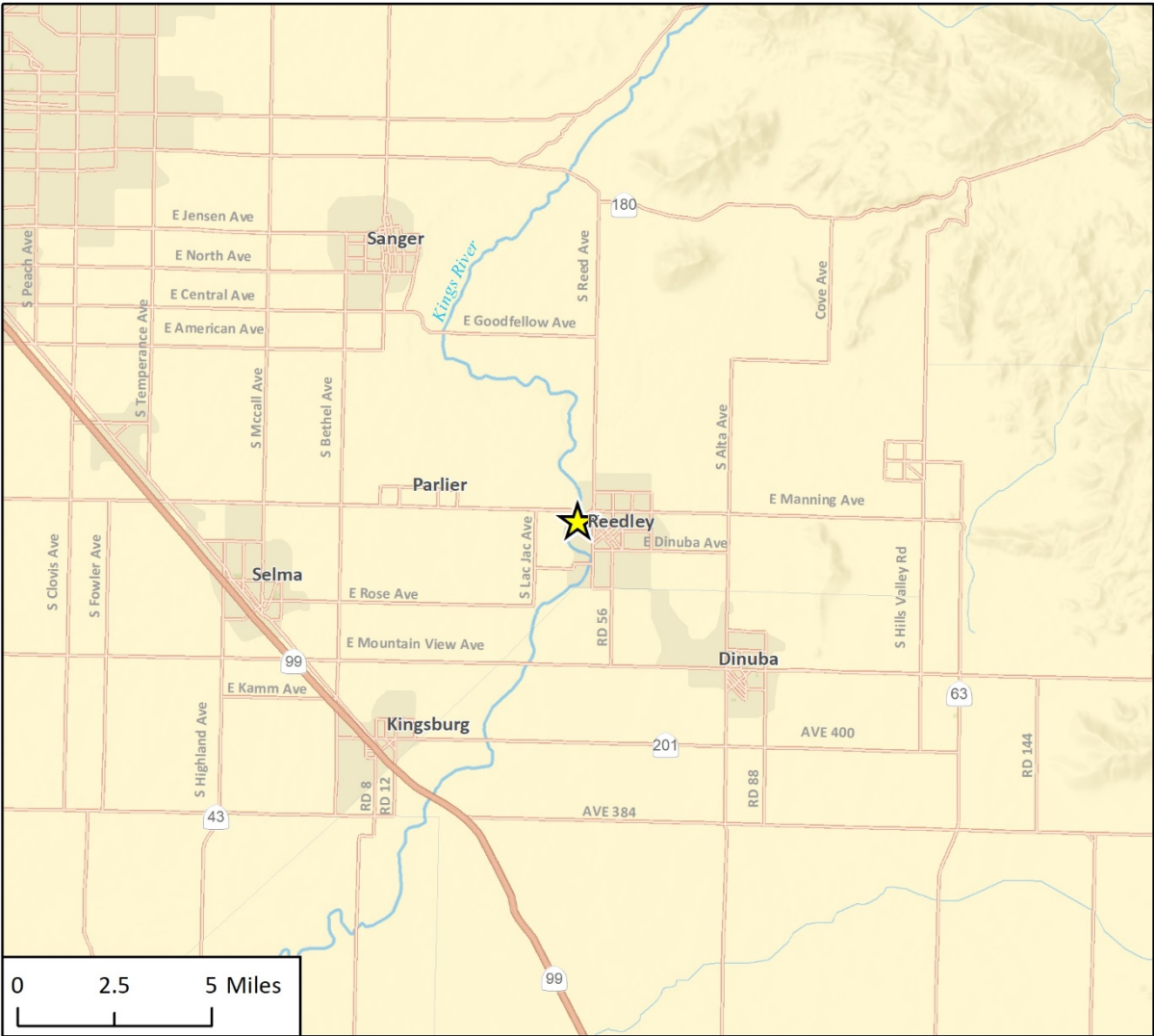
Site Plan Review Application No. 2020-01: The project would master plan approximately 11 of the 58 acres of the land proposed to be designated as CC (APNs 368-350-17, 368-350-31, 368-350-32, and 368-350-33). This master plan includes the proposed development of nine commercial buildings totaling 90,480 square feet (SQ) with a total of 487 parking spaces.

- The proposed commercial uses would consist of:
 - Retail stores
 - Drive-thru restaurants
 - Dine-in restaurants
 - Gas Station (one)
 - Hotel (one)

The proposed ingress/egress to the site would be available off of Manning Avenue and off of the proposed southern extension of Manning Avenue which would be accessed at the Manning Avenue/I Street intersection.

The project would also dedicate land directly east of the Kings River that is currently designated as Open Space by the City of Reedley 2030 General Plan for the future development of the Reedley Parkway. The proposed master site plan would meet the 25 percent imminent development requirement as part of the annexation process and application. However, the portion of the Kings River proposed to be annexed to create a logical jurisdictional boundary is not included in this calculation. The proposed master site plan is consistent with the proposed pre-zoning designations and the City of Reedley 2030 General Plan.

Figure 1 Regional Location



Basemap provided by Esri and its licensors © 2020.

★ Project Location



18-06295 Regional Location Figure

Figure 2 Study Area



2 Methodology

2.1 Regulatory Overview

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

Definition of Special-status Species

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)
- Species designated as sensitive by the U.S. Forest Service or Bureau of Land Management, if the project would affect lands administered by these agencies
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy.

Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Appendix A):

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGF)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- Fresno County 2000 General Plan
- City of Reedley 2030 General Plan

Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

- a) *Have substantial adverse effects, 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.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*
- 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.*
- 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 sites.*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.*

2.2 Study Area

The study area evaluated for this analysis includes the entire annexation area, including the pre-zoning of an approximately 32-acre commercial development site, approximately 11-acre residential area, and approximately 15-acre conservation zone along the King's River (Figure 2). The project would master plan approximately 11 of the 32 acres of the land proposed to be designated as commercial development. Representative photographs of the study area are provided in Appendix B.

2.3 Literature Review

Rincon analyzed agency and public databases and literature for relevant information on potential biological resources to occur within the *Reedley, California* USGS 7.5-minute quadrangle and surrounding eight quadrangles: *Orange Cover North, Orange Cover South, Wahtoke, Sanger, Selma, Monson, Traver, and Burris Park California*. Site-specific aerial photographs (Google Earth 2020), topographic maps, hydrographic maps, and soil survey maps of the study area were analyzed during the literature review.

Queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2020a), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2020), the Biogeographic Information and Observation System (CDFW 2020b) were conducted to consider state and federally listed species that have the potential to occur within the study area.

The results of database-queries and lists of special-status species were reviewed by Rincon's regional biological experts for accuracy and completeness. The final list of special-status biological resources evaluated in this report was determined based on occurrences within the 9-quad search area and species known to occur in the region based on the local biologists' expert opinions. The results of the species potential-to-occur assessment were compiled into a table presented as Appendix D.

The following resources were also reviewed for additional information on existing conditions related to biological resources within the study area:

1. United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2020b)
2. USFWS Critical Habitat Portal (USFWS 2020a)

2.4 Field Reconnaissance Survey

Rincon biologists Morgan Craig and Samantha Kehr conducted a field reconnaissance survey of the study area on December 3, 2020 from 1015 to 1215. While conducting the survey, temperatures ranged from 61 to 67 degrees Fahrenheit (°F), wind speeds from 2-3 mph, and there was 0% cloud cover. The survey consisted of meandering transects throughout the entire study area on foot. The pedestrian survey allowed biologists to document site conditions, identifying plant and animal species, assessing potential habitats suitable for special-status species, jurisdictional waters and wetlands, and vegetation communities present within the study area. The majority of the study area consists of actively farmed agricultural fields. The Kings River located on the west side of the study area was visually surveyed with the aid of binoculars.

3 Existing Conditions

3.1 Physical Characteristics

Elevations within the study area range from approximately 300 to 350 feet (91.44 to 106.68 meters) above mean sea level (msl) (USFW 2020a). The study area is located within preexisting agricultural land, the Kings River and associated riparian corridor, and developed land. The majority of the active agricultural land consist of citrus orchards, strawberry fields, and fallow fields. Manning Avenue is located directly north of the study area, and crosses over the Kings River, which runs along the west side of the project site. Residential buildings are located south of the project site, along with commercial buildings and parking lots located to the east. Topography within the study area is generally flat. Terracing for agricultural use occurs within the majority of the site and the top-of-bank along the Kings River riverbed slopes abruptly downward toward the riverbed.

The climate in this region is generally hot with dry summers and mild winters. The average high temperature is 98 °F and occurs between the months of June and September. The average low temperature is 37 °F and occurs between the months of November and January. The average annual precipitation is 10.63 inches, with most of the precipitation occurring between December and March (Western Regional Climate Center 2020).

Watershed and Drainages

The study area is located within the Tulare Basin. The study area is located in the Cole Slough-Kings River watershed (Hydrologic Unit Code [HUC] 1803001202), and the Tulare-Buena Vista Lake watershed (HUC 18030012) (CDFW 2020b). Two potentially jurisdictional features were observed within the study area during the reconnaissance survey (Figure 4). The Kings River is a perennial river that was observed west of the study area, and a canal ditch was observed on the east side of the study area. The National Hydrography Dataset (NHD) labels the canal ditch, West Reedley Ditch, and an artificial riverine system (USGS 2020). The canal acts as a connecting link between two underground stormwater structures. This stormwater system conveys runoff from developed areas within the City and agricultural ditches from the surrounding area. Standing water and wetland-riparian vegetation was observed during the field reconnaissance survey. Potentially jurisdictional water features within the study area are described in section 4.3.

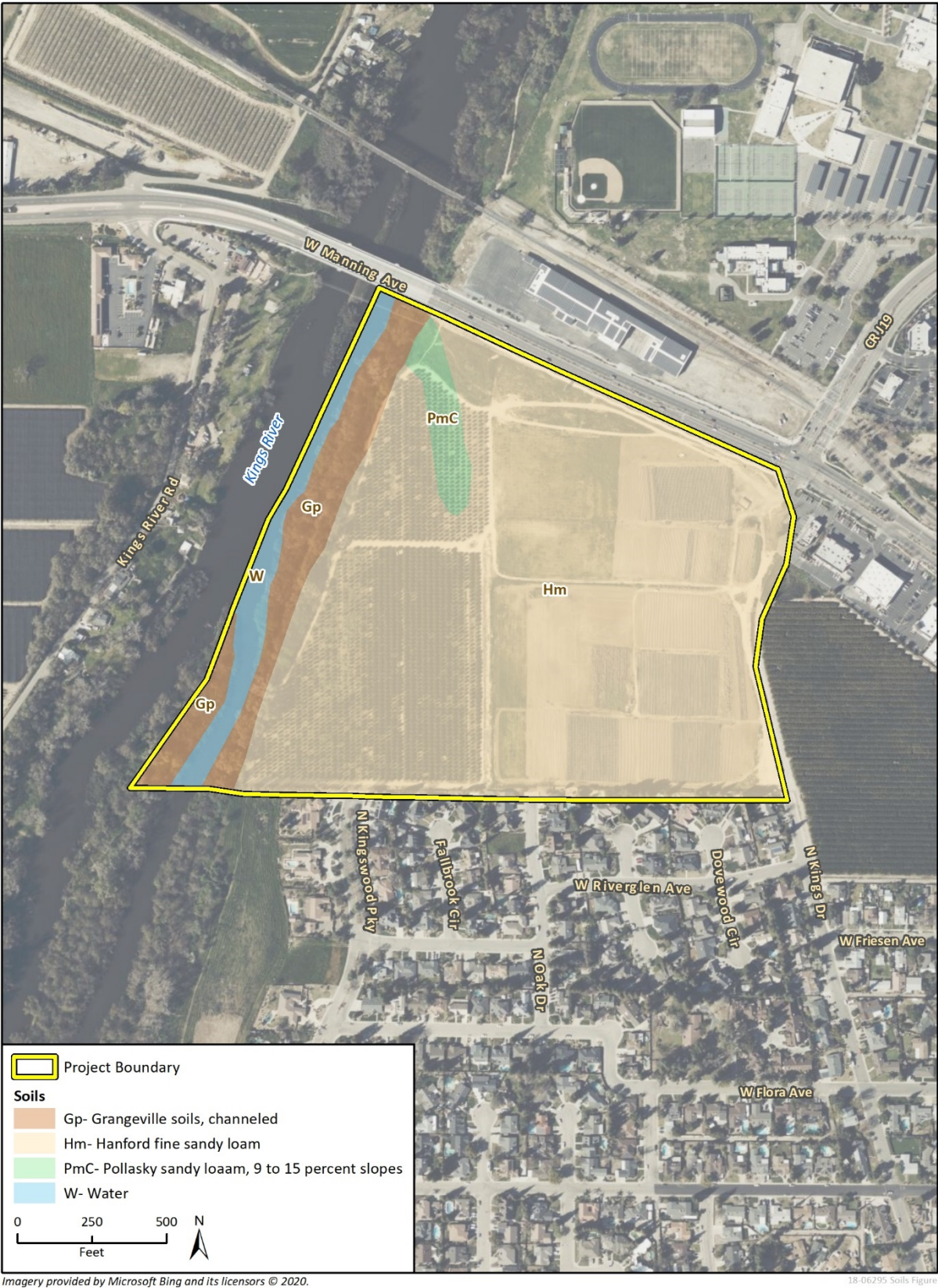
Soils

According to data available from the USDA and National Cooperative Soil Survey (NCSS) Web Soil Survey (USDA 2020b), three soils units are mapped within the study area including:

- Grangeville soil, 0-2 percent slope*
- Hanford fine sandy loam, 0-15 percent slope
- Pollasky sandy loam, 9-15 percent slope

Soil distribution within the project area is depicted in Figure 3 and the soil series are described in more detail below. The one hydric soil type found in the area is indicated with an asterisk above (USDA 2020a). The following soil series descriptions are summarized from soil series descriptions available on the NRCS website.

Figure 3 Soils Map



Grangeville Series

Grangeville soil can be considered a poorly-drained soil and has a 0-2 percent slope at elevations of 160 to 500 feet. This soil is formed from alluvial fans and flood plains and is derived from granite parent material. According to the NCRS-USDA Web Soil Survey, Grangeville soil is mapped underlying 11.2% of the study area (USDA NRCS 2020a). Grangeville is considered a hydric soil, ranges from being slightly acidic to moderately alkaline. This soil has been commonly used for agricultural farming and is found in uncultivated areas that consist of oak and cottonwood trees.

Hanford Series

Hanford fine sandy loam is considered a well-drained soil and has a 0-15 percent slope at elevations of 200 to 500 feet. This soil is formed from alluvial fans and flood plains and is derived from granite parent material. According to the NCRS-USDA Web Soil Survey, Hanford soil is mapped underlying 76.8% of the study area (USDA NRCS 2020a). Hanford fine sandy loam is usually slightly alkaline and become more alkaline with depth. This soil has been commonly used for agricultural farming, urban development, and can be found in uncultivated areas with annual grasses. Due to active agricultural use the soil is heavily disturbed.

Pollasky Series

Pollasky sandy loam is considered well-drained soil and has a 9 to 15 percent slope at elevations of 300 to 500 feet. This soil is formed from erosion remnants on terraces and is derived from granite parent material. According to the NCRS-USDA Web Soil Survey, Pollasky sandy loam soil is mapped underlying 2.7% of the study area (USDA NRCS 2020a). This soil has been commonly found on hilly or steep dissected alluvial terrace lands and is not prime farmland soil.

3.2 Vegetation and Land Cover Types

The study area is comprised primarily of disturbed, active agricultural land, ruderal and developed areas, with a smaller area of perennial river and associated riparian corridor. A complete list of plant species identified is included in Appendix C. Four land cover types exist within the study area: agriculture, ruderal, developed/disturbed, and riparian (Figure 4). Only one sensitive vegetation community was observed in the study area and consists of the riparian corridor. The riparian vegetation community within the study area is heavily disturbed by the presence of non-native invasive species such as common fig (*Ficus carica*) and tobacco tree (*Nicotiana glauca*). Native vegetation includes valley oak (*Quercus lobate*), Fremont cottonwood (*Populus fremontii*), northern California walnut (*Juglans hindsii*), and willow tree (*Salix lasiolepis*).

Agriculture

Agricultural fields comprise approximately 38.2 acres, which is 67% of the study area. Agricultural areas include fallow agricultural fields and active citrus orchards and strawberry fields, as well as designated land for farming cabbage, raspberry, strawberry, squash, gourd, cherry tomatoes, and sugar cane. This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems.

Ruderal

Two percent of the project site consist of ruderal areas. These areas are primarily in the northwest corner of the project site, adjacent to the Kings River and near the agricultural fields. Plant species observed within these areas consist primarily of weedy non-native species, including; Bermuda grass (*Cynodon dactylon*), Russian thistle (*Salsola tragus*), and horseweed (*Erigeron canadensis*). This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems.

Developed/Disturbed

Developed/disturbed areas occur throughout the project, comprising 14% of the study area. Compacted dirt access roads are present throughout agricultural areas and along the perimeter of the study area. This land cover type is not naturally occurring and is not described in either the Holland (1986) or Sawyer et al. (2009) classification systems. Roads and structures are included within this land cover type. Developed buildings such as a strawberry stand and parking area are located in the northeast corner of the study area.

Riparian

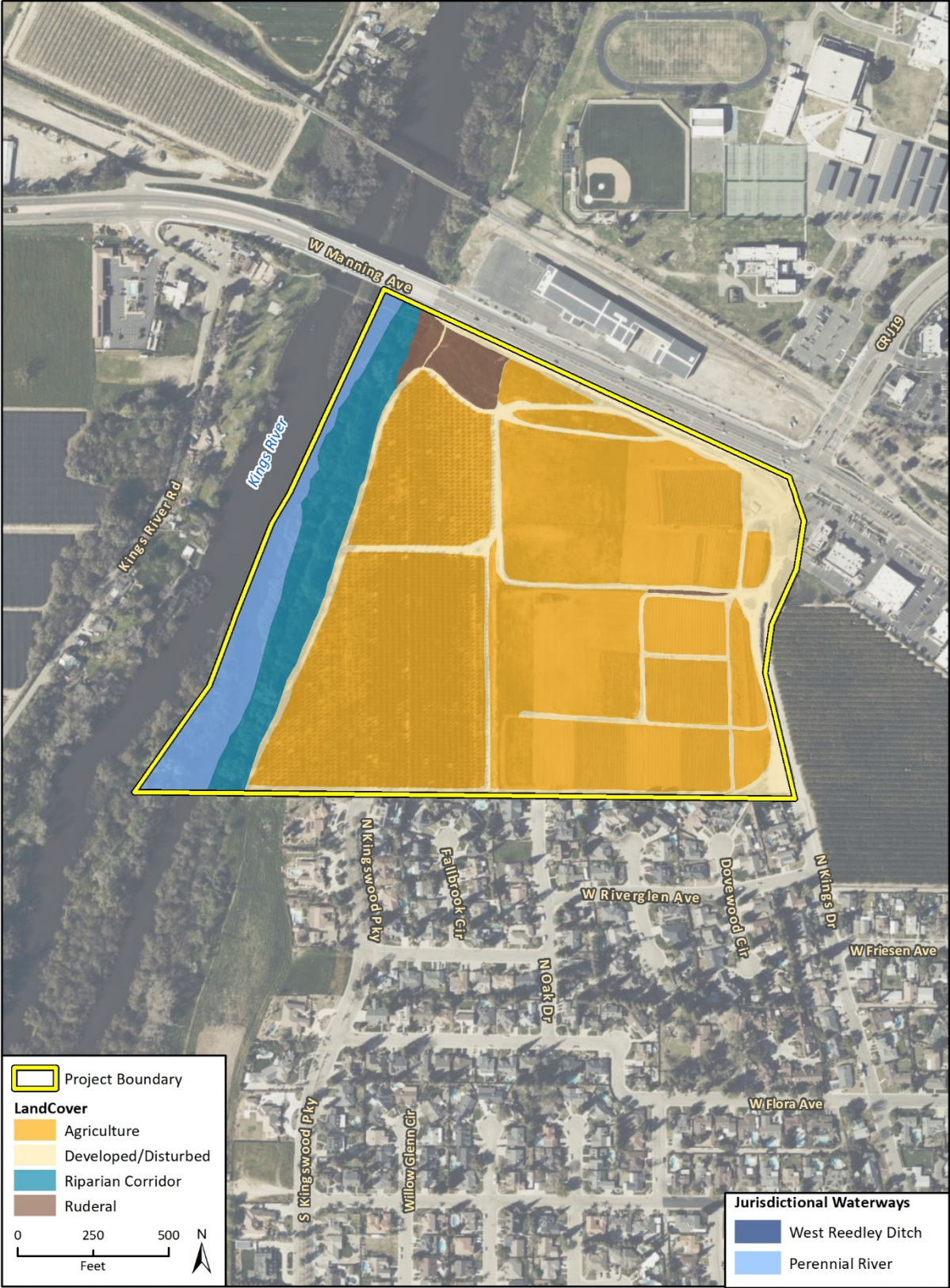
The riparian community occurs along the west side of the site parallel to the Kings River and makes up 9% of the study area. This community most closely resembles the Valley Oak *Quercus Labata* Forest and Woodland Alliance (Sawyer et al. 2009) or Great Valley Oak Riparian Forest (Holland 1986). Native valley oak (*Quercus lobate*), Fremont cottonwood (*Populus fremontii*), northern California walnut (*Juglans hindsii*), and willow tree (*Salix lasiolepis*) are dominant in the tree canopy of the riparian corridor. Non-native plant species such as common fig (*Ficus carica*) and tobacco tree (*Nicotiana glauca*) are largely dominant in the understory. Blue elderberry (*Sambucus cerulea*) is also present within this vegetation community. Areas along the Kings River are currently heavily disturbed by homeless encampments. This vegetation community is considered sensitive by CDFW and is discussed in greater detail in Section 4.2.

Two additional land cover categories, Perennial River and West Reedley Ditch, are considered sensitive by CDFW and are addressed below in Section 4.3, Jurisdictional Waters and Wetlands. A portion of the Kings River is mapped as Perennial River, located parallel along the west side of the riparian corridor, and makes up 7% of the study area. West Reedley Ditch is located on the east side of the study area and makes up <1% of the study area.

General Wildlife

The study area consists predominately of disturbed agricultural land, which results in generally low wildlife potential. However, the surrounding areas, including the Kings River and riparian corridor does provide habitat suitable for wildlife species within the study area. Wildlife species observed included avian species such as white-crowned sparrow (*Zonotrichia leucophrys*), wood duck (*Aix sponsa*), and common starling (*Sturnus vulgaris*). A group of inactive cliff swallow (*Petrochelidon pyrrhonota*) mud nests were observed on the underside of the Manning Avenue bridge, over the Kings River. A domestic dog and cat were the only mammals observed during the field survey, but several California ground squirrel (*Otospermophilus beecheyi*) burrows were present throughout the study area and raccoon (*Procyon lotor*) tracks were observed near the King's River. A complete list of wildlife species observed during the field reconnaissance survey is included in Appendix C.

Figure 4 Biological Resources



4 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 presence to be conducted on site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed within the study area and evaluates the potential for the study area 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, species occurrence records from other sites in the vicinity of the survey area, previous reports for the study area, and the results of reconnaissance-level site visit. The potential for each special-status species to occur in the study area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (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). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; those recognized as Fully Protected, SSC, or WL Species by the CDFW; raptors and nesting birds as protected by the CFGC; and plants ranked as California Rare Plant Rank (CRPR) 1 and 2, per the following definitions:

- **Rank 1A** = Plants presumed extinct in California
- **Rank 1B.1** = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- **Rank 1B.2** = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened)
- **Rank 1B.3** = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened, or no current threats known)
- **Rank 2** = Rare, threatened or endangered in California, but more common elsewhere

CRPR 1B and 2 plant species are typically regarded as rare, threatened, or endangered under the CEQA by lead CEQA agencies and were considered as such in this document. CRPR 3 and 4 plant species are typically not considered for analysis under CEQA except where they are designated as rare or otherwise protected by local governments or where cumulative impacts could result in population-level effects.

4.1 Special-status Species

Based on the results the CDFW CNDDDB map of State and federally listed species that have been previously documented within a 5-mile radius of the project site, CNPS Online Inventory of Rare and Endangered Plants of California database and Biogeographic Information and Observation System database queries, literature review, and reconnaissance survey, 20 special-status plant species and 19 special-status wildlife species were evaluated for their potential to occur within the study area (Appendix D).

Special-status Plant Species

Twenty special-status plant species were evaluated for their potential to occur within the study area. Of the twenty species evaluated, only one has potential to occur on site based on the presence of potentially suitable habitat: Sanford's arrowhead (*Sagittaria sanfordii*). The remaining nineteen species were excluded based on the absence of habitat, lack of suitable soils, and historical disturbance experienced in the study area (see Appendix D for a species-by-species evaluation).

Sanford's Arrowhead

Sanford's arrowhead is not a federally, or state listed species, although this species is ranked as CRPR 1B.2. Sanford's arrowhead occurs mainly in freshwater marshes, swamps, and wetlands. There are no occurrences within the project site, however there are five CNDDDB occurrences within five miles from the study area from agricultural ditches, last recorded in 2017. The segment of West Reedley Ditch within the study area provides marginal habitat for this species, and the site is largely surrounded by development; therefore, there is a low potential for Sanford's arrowhead to occur.

Special-status Animal Species

Rincon evaluated nineteen special-status animal species for their potential to occur within the study area or adjacent habitats (Appendix D). Of the nineteen species evaluated, one has high potential to occur within the study area, and four of these species have low potential to occur.

Table 1 Wildlife Species with Potential to Occur within the Study Area

Common Name	Scientific Name	Status	Potential to Occur
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT	High Potential
Burrowing owl	<i>Athene cunicularia</i>	SSC	Low Potential
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/ST	Low Potential
Swainson's hawk	<i>Buteo swainsoni</i>	ST	Low Potential
Western pond turtle	<i>Emys marmorata</i>	SSC	Low Potential
FE = Federally Endangered	FT = Federally Threatened	SE = State Endangered	ST = State Threatened
SSC = CDFW Species of Special Concern	FP = State Fully Protected	WL = State Watch List	

The remaining fourteen species are not expected to occur in the study area based on the absence of native grassland, woodland, scrub vegetation communities, or other species-specific habitat requirements, and/or because the range of the species does not overlap with the study area. Those special-status wildlife species that have potential to occur are listed in Table 1 and are discussed in further detail below.

Burrowing Owl

The burrowing owl, a state Species of Special Concern (SSC), is a small long-legged owl found in dry, open areas with low vegetation in North America. Preferred habitats include grasslands, deserts, rangelands or agricultural areas with little or no vegetation. Burrowing owls rely on existing burrows of other animals, such as California ground squirrel, which they modify for their own use.

One occurrence of the species is documented by the CNDDDB within 5 miles of the study area, last observed in 2006. No active burrowing owl burrows were observed within the study area during the reconnaissance survey. The study area is predominantly agricultural fields that have been regularly disturbed by active cultivation or disking. Very few small mammal burrows were observed within the study area to provide suitable habitat. Given the ongoing agricultural activities, presence of homeless encampments, and lack of suitable nesting habitat, it is unlikely that burrowing owls would occupy the site and are only likely to occur incidentally during migration or dispersal.

San Joaquin Kit Fox

The San Joaquin kit fox (SJFK) is a federally endangered and state threatened species that is endemic to California west of the Sierra Nevada Mountains. SJKF occur in the Central Valley generally in the Sacramento area south to the southern end of the San Joaquin Valley, in the Carrizo Plain and Panoche Valley, and occasionally in northern San Luis Obispo County. This species is about the size of a house cat, weighing 4-7 pounds and is approximately 30 inches in length. Its diet consists of black-tailed jackrabbits and desert cottontails, rodents (especially kangaroo rats [*Dipodomys* sp.]) and ground squirrels (*Spermophilus* sp.), insects, reptiles, and some birds, bird eggs, and vegetation. SJKF are most commonly found in gently sloping to relatively flat terrain vegetated with grasslands and open scrub. They may occur on a limited basis in areas under less intense agricultural production, such as dry-land grain farming and orchards, and they are known to occur in urban areas.

No evidence of SJKF was detected during focused surveys (see Appendix D). The study area consists of marginal habitat for SJKF. Burrows found within the study area during the field survey were of a suitable size for kit fox (greater than 6" in diameter), but due to the heavily disturbed nature of the site, the potential for SJKF to utilize the site is low. SJKF may occur in the project site's surrounding areas temporarily during long range dispersal.

Swainson's Hawk

Swainson's hawk is a state threatened, with a low potential to nest and forage on the project site. This species breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, and agricultural or ranch lands with groves or lines of trees. Suitable foraging areas such as grasslands, or agricultural fields such as fallow fields, alfalfa, low-growing crops such as beet and tomato, and irrigated and dryland pasture, are required adjacent to the nesting habitat.

No occurrences of Swainson's hawk have been recorded by CNDDDB within five miles of the project site, however, there is marginally suitable nesting habitat for Swainson's hawk within the project area in the form of tall oak trees. No old raptor nests were observed at these trees during the survey. This

species typically prefers to nest within a grove or lines of trees but are known to nest within smaller trees and isolated trees when higher quality nesting habitat is absent. Suitable foraging habitat is within the study area and includes fallow and disked fields with low-growing vegetation. Therefore, Swainson's hawk has a low potential to occur in the study area.

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle is a federally threatened species and is often found in riparian habitats containing elderberry (*Sambucus* sp.), their host plant. Adults are active from March through June, when they lay their eggs on elderberries branches 2-8 inches in diameter. Some preferences have been shown to prefer "stressed" elderberries. A total of five occurrences have been recorded within five miles of the study area. One occurrence has been recorded less than a half of a mile of the site (CDFW 2020a). Rincon observed blue elderberry within the riparian vegetation near the Kings River. There is a high potential for this species to occur within the riparian portion of the study area.

Western Pond Turtle

Western pond turtle is a CDFW species of special concern that is found in ponds, lakes, rivers, creeks, marshes, and irrigation ditches, with abundant vegetation. It requires basking sites of logs, rocks, cattail mats, or exposed banks. Western pond turtle is active from approximately February to November. It will estivate during summer droughts by burying itself in soft bottom mud. When creeks and ponds dry up in summer, some turtles will travel along the creek until they find an isolated deep pool, others stay within moist mats of algae in shallow pools, and many turtles move to woodlands above the creek or pond and bury themselves in loose soil. Pond turtle will overwinter underground until temperatures warm up and the heavy winter flows of the creek subside. They return to the creek in the spring.

Suitable habitat for this species is present at Laguna Grande and the Frog Pond, and the Canyon Del Rey Creek may provide a corridor for movement between the two. This species is also known to occur on the former Fort Ord and other ponds within five miles of the BSA. This species is most likely to occur along the Canyon Del Rey/SR 218 segment. This species is known to occur in the Kings River watershed. This species has a low potential to occur on the project site.

Other Protected Species

Nesting Birds

Non-game migratory birds protected under the California Fish and Game Code (CFGF) Section 3503, such as native avian species common to grasslands, agricultural, developed and ruderal areas, have the potential to breed and forage throughout the project area. An inactive cliff swallow colony (mud nests) was observed at the Kings River under the Manning Avenue bridge during the reconnaissance survey. Species of birds that are common to occur in the area, such as mourning dove, western scrub jay, Bewick's wren, red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*) may nest in the study area. Nesting by a variety of common birds protected by the MBTA and CFGF Section 3503 could occur in virtually any location throughout the study area containing native or non-native vegetation.

4.2 Sensitive Plant Communities and Critical Habitats

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in CNDDDB. Sensitive natural communities included in the CNDDDB follow the original methodology according to “Preliminary Descriptions of the Terrestrial Natural Communities of California” (Holland 1986). The methodology for determining sensitivity continues to be revised and is now based on “the Manual of California Vegetation” (Sawyer et al. 2009). Communities considered sensitive by CDFW are published in the California Sensitive Natural Communities List (CDFW 2018). Vegetation alliances are ranked 1 through 5 based on NatureServe’s (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Some alliances with the rank of 4 and 5 have also been included in the 2018 sensitive natural communities list under CDFW’s revised ranking methodology (CDFW 2018c).

Because of transitioning vegetation community nomenclature, one vegetation community in the study area would be considered sensitive: Valley Oak *Quercus lobata* Forest and Woodland (CNPS 2020b) or Great Valley Oak Riparian Forest (Holland 1986). A riparian zone acts as a buffer between a river or stream and the adjacent land. The riparian habitat within the study area is heavily disturbed by the presence of non-native invasive species (fig and tobacco tree) and human disturbance (homeless). However, the large oak and cottonwood trees, dead snags, and dense willow thicket provide habitat value.

There are no federally designated critical habitats within 5 miles of the study area.

4.3 Jurisdictional Waters and Wetlands

Based on the literature review and observations made during the field reconnaissance survey, there is one perennial river and one unknown canal located within the study area. The Kings River falls under the jurisdiction of USACE, RWQCB, and CDFW, and West Reedley Ditch may fall under jurisdiction of RWQCB and CDFW (Figure 4). The two potentially jurisdictional water features identified within the study area are described below.

Kings River

The Kings River is a potentially jurisdictional water located parallel along the west side of the riparian corridor and makes up 7% of the study area. Native riparian or wetland vegetation along the riverbanks consisted primarily of Fremont cottonwood, California black walnut, and arroyo willow. Invasive and ruderal plant species such as white mulberry (*Morus alba*), tobacco tree, and common fig were also present along the river. This vegetation community may provide habitat for sensitive species that forage and breed in wetlands. The National Wetlands Inventory (NWI) classifies this feature as R2UBH (Riverine [R], Lower Perennial [2], Unconsolidated Bottom [UB], and Permanently Flooded [H]). As a traditionally navigable water and perennial river, the Kings River falls under the jurisdiction of USACE, RWQCB, and CDFW.

West Reedley Ditch

West Reedley Ditch is located on the east side of the study area. The approximate length of the ditch is 619 feet (Google Earth 2020). There are active agricultural fields surrounding the ditch within the

study area and orchard fields to the east of the canal outside of the study area. The NWI classifies this feature as R5UBFx (Riverine [R], Unknown Perennial [5], Unconsolidated Bottom [UB], Semi-permanently Flooded [F] and Excavated [x]). There was approximately one foot of standing water in the canal at the time of the field reconnaissance survey, and a large variety of aquatic plants exists throughout the entire canal. This vegetation community may provide habitat for species that forage and breed in wetlands. CDFW may assert jurisdiction over this feature due to the presence of wetland habitat. Any impacts to this feature may require a CDFW Lake and Streambed Alteration Agreement. The RWQCB may also assert jurisdiction over this ditch under the Porter-Cologne Water Quality Control Act. Any impacts to this feature may require a RWQCB discharge permit.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project commissioned by the California Department of Transportation (Caltrans) and CDFW; identifies “Natural Landscape Blocks” which support native biodiversity and the “Essential Connectivity Areas” which link them (Spencer et al. 2010).

Wildlife movement corridors can be both large and small in scale. Fallow agricultural fields, ruderal areas, compacted dirt roads, and the Kings River, provide local scale opportunities for wildlife movement throughout the study area. Existing dirt roads within the study area also act as corridors for wildlife movement, particularly for relatively disturbance-tolerant species such as coyote and raccoon. There are no Natural Landscape Blocks or Essential Connectivity Areas mapped within the study area.

4.5 Resources Protected by Local Policies and Ordinances

The project is located in unincorporated Fresno County. The Fresno County’s 2000 General Plan includes goals and policies for conservation and open space. The Proposed Master Plan includes Resource Conservation and Open Space (RCO) zoning for the riparian corridor and Kings River; therefore, annexation and development under the Master Plan would not conflict with this ordinance.

The Open Space and Conservation Element of the City of Reedley 2030 General Plan (2014) contains several similar goals, policies, and implementation programs aimed at the conservation of wetland and riparian areas, fish and wildlife habitat, and vegetation, which would govern the development projects proposed under the master plan for the City of Reedley Annexation Project.

4.6 Habitat Conservation Plans

The study area is not within any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5 Impact Analysis and Mitigation Measures

This section discusses the potential impacts and effects to biological resources that may occur from implementation of the proposed project and recommends mitigation measures that would reduce those impacts, where applicable.

5.1 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.*

Special-status Plants

One special-status plant species has the potential to occur within the study area based on known ranges, habitat preferences, species occurrence records in the vicinity of the study area, and presence of suitable habitat.

Sanford's Arrowhead

Marginal habitat for Sanford's arrowhead is present in wetland habitat in West Reedley Ditch within the study area. The ditch is within areas proposed for development. Because this species is not state or federally listed these impacts would only be considered significant if it would jeopardize the regional population. Because of the small size of suitable habitat and isolation from natural vegetation communities, the removal of a small number of individuals, if present, would not represent an impact to the regional population. Therefore, impacts to Sanford's arrowhead would be less than significant.

Special-status Wildlife

Five special-status wildlife species have potential to occur within the study area based upon observations made during the field reconnaissance survey, known ranges and habitat preferences, species occurrence records within the vicinity, and presence of suitable habitat. Four of these animal species have a low potential to occur: burrowing owl, Swainson's hawk, San Joaquin kit fox, and western pond turtle. One of these species has a high potential to occur within the study area: Valley elderberry longhorn beetle. No sensitive species were observed within the study area during the field reconnaissance survey. Nesting special-status bird species and/or nesting birds protected under the MBTA and CFGC have potential to occur throughout the study area during the nesting season (February 1 to September 15).

Burrowing Owl

No burrowing owl or burrowing owl sign was observed during the field reconnaissance survey. Isolated and low-density California ground squirrel burrows and associated ditches and roadside berms provide marginal habitat. Burrowing owl may utilize the study area for foraging; however, ongoing agricultural uses and low abundance of prey make most of the study area poor quality foraging habitat. The species is most likely to occur incidentally during migration or dispersal. If this

were to occur, the project could directly impact the individuals either through ground disturbance activities destroying the burrow, or construction noise and human presence resulting in harassment of individuals. These impacts would be considered significant under CEQA. Mitigation measures BIO- 1 and 2 below are recommended to reduce impacts to burrowing owl to less than significant.

San Joaquin Kit Fox

SJKF has a low potential to occur on site. Several burrows of sufficient size to accommodate SJKF were detected during site surveys. This species may use dry agriculture land, fallow agricultural fields, and adjacent grasslands for foraging; however, the low abundance of prey and potential predators makes the site marginal as a foraging habitat. The species may occur within the study area irregularly during dispersal. Impacts to SJKF, if present during construction, could include injury or mortality of individuals. Injury, mortality, or harassment of even a single individual would be considered significant under CEQA. Mitigation measures BIO- 1 and 3 below are recommended to reduce direct impacts to be less than significant level. Impacts to SJKF would also require consultation with USFWS and possible permitting for “take” of a listed species.

Swainson's Hawk

There is marginal nesting and foraging habitat for Swainson's hawk within the study area in the riparian corridor, row crops, and disked fields. However, developed and disturbed areas in the City of Reedley surrounding the study area and in the greater vicinity do not provide habitat for this species. Therefore, the potential for Swainson's hawk to occur on site is low. Project activities could result in potential disturbance of foraging behavior during construction. Impacts may also occur if an active nest was present in the vicinity during construction and disturbance resulted in nest abandonment. These impacts would be considered significant under CEQA. Given the small area of marginal foraging habitat, isolation due to surrounding development, and abundance of foraging habitat in the greater vicinity, loss of foraging habitat would be less than significant. Implementation of Mitigation measures BIO- 1 and 4 below are recommended would reduce potential impacts to nesting Swainson's hawk to less than significant.

Valley Elderberry Longhorn Beetle

Multiple blue elderberry host plants were observed during the reconnaissance site visit within the riparian corridor, on the west side of the study area. There is high potential for Valley elderberry longhorn beetle to occur within the study area. No development is proposed inside the conservation zone; however, impacts to this species could occur if encroachment by workers or equipment crushed vegetation and occupied host plants. Impacts could also occur if construction occurred during the adult flight period and resulted in crushed or injured individuals. Mitigation Measures BIO- 1 and 5 below are recommended to reduce impacts to less than significant.

Western Pond Turtle

There are no known occurrences of western pond turtle within 5 miles of the study area, however suitable basking sites and aquatic habitat may be present in the Kings River and the site is within this species known range. No development is proposed inside the conservation zone or the Kings River, therefore, impacts to this species could occur if individuals were present in the work area during upland movement and were injured or crushed by equipment. Mitigation measures BIO- 1 and 6 below are recommended to reduce impacts of this species to less than significant.

Raptors and Nesting Birds

Bird species observed during the site survey, including western scrub jay, mourning dove, and acorn Bewick's wren have potential to nest within the study area. Suitable nesting habitat for common raptors such as red-tailed hawk and red shouldered hawk also exists within the riparian corridor. If nests of protected species are present in the study area during construction, the project could directly impact the nest either through ground disturbance activities destroying the nest, or through disruption of normal biological behaviors during construction resulting in nest failure. Direct impacts to non-listed species would not be significant under CEQA but would be a violation of CFGC. Mitigation measures BIO- 1 and 7 are recommended to reduce potential impacts to nesting raptors to less than significant, and to avoid violations of the CFGC.

BIO-1 WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction should attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the construction area. The specifics of this program should include identification of special-status 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 should also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees should sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them.

BIO-2 MITIGATION MEASURES FOR BURROWING OWL

A preconstruction clearance survey for burrowing owls should be conducted by a qualified biologist no less than 14 days prior to the start of construction activities in accordance with the protocols adopted by the CDFW *Staff Report on Burrowing Owl Mitigation* (2012). If burrowing owls are observed on site or within 500 feet of the site, the following avoidance and minimization measures should be implemented:

- A no-disturbance buffer should be established around occupied burrows. The buffer size may range from 150 feet to 650 feet depending on the time of year and the level of construction activity (refer to CDFW 2012).
- A qualified biologist should monitor the nest to ensure construction activities will not adversely impact the nesting birds and determine when the burrow is no longer occupied.

If construction activities cannot avoid the active burrowing owl nest, CDFW should be consulted regarding passive eviction. If necessary, burrowing owls may be relocated from burrows after an exclusion plan is prepared and approved by the CDFW.

BIO-3 MITIGATION MEASURES FOR SAN JOAQUIN KIT FOX

A pre-construction clearance survey for San Joaquin kit fox (SJKF) should be conducted no less than 14 days and not more than 30 days prior to the initiation of ground-disturbing activities. The survey area should include the entire study area and all accessible undeveloped habitat within 200 feet. If potential dens are observed, they must be avoided to the maximum extent possible.

- The following minimum non-disturbance buffers should be established prior to construction activities (consistent with USFWS guidance [2011]):
 - Potential den: 50 feet
 - Atypical den: 50 feet
 - Known den: 100 feet
 - Natal/pupping den: at least 500 feet, and **USFWS must be contacted**.
- Buffer establishment should be established in accordance with USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011) under "Exclusion Zones."
- If known San Joaquin kit fox dens are observed on the site, and cannot be avoided, **USFWS and CDFW must be contacted** regarding incidental take permits.

Construction activities should adhere to the avoidance and minimization measures outlined in the USFWS 2011 Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance, outlined below:

- Project-related vehicles should observe a 20-mph speed limit in all study areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated study areas should be prohibited.
- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS should be notified within three days of the discovery.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least once a week from a construction or project site.
- Use of rodenticides and herbicides in study areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of proven lower risk to kit fox.

BIO-4 MITIGATION MEASURES FOR SWAINSON'S HAWK

To avoid impacts to nesting Swainson's hawk, all construction activities should be limited to the time period between August 30 and February 1. If construction activities cannot be completed within this timeframe, a protocol-level survey should be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee, 2000). If active Swainson's hawk nests are found, up to a .5 mile non-disturbance buffer should be established by a qualified biologist based on the nest location in relation to the project activity, the line-of-sight from the nest to the project activity, and observed hawk behavior at the nest.

All construction personnel should be notified as to the existence of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities should occur within the buffer until the qualified biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer should occur only at the discretion of the qualified biologist.

BIO-5 MITIGATION MEASURES FOR VALLEY ELDERBERRY LONGHORN BEETLE

Prior to construction, a qualified biologist will survey the project footprint to confirm the absence of Valley elderberry longhorn beetle host plants (blue elderberry). If elderberry plants are present, the biologist should flag all individual shrubs within the project footprint for avoidance.

Temporary high visibility plastic mesh-type construction fence should be installed at least 20 feet from the driplines of elderberry shrubs, riparian corridor, or edge of the designated conservation zone, whichever is closer to the work area, to prevent encroachment by construction vehicles and personnel. Fencing should also include Environmentally Sensitive Area signage every 200 feet. If Valley elderberry longhorn beetle habitat cannot be avoided, the applicant shall provide evidence to the City that a Section 2081 Incidental Take Permit (ITP) from CDFW for Valley elderberry longhorn beetle (if determined to be required) has been obtained. If it is determined that an ITP is not required, the project developer/operator shall provide a letter describing the consultation process and wildlife agency determination, indicating that an ITP is not required. The letter shall also identify the CDFW point of contact and contact information.

BIO-6 MITIGATION MEASURES FOR WESTERN POND TURTLE

A qualified biologist should conduct a pre-construction survey for western pond turtle within 48 hours prior to initiation of construction activities. If western pond turtle is observed in the work area a qualified biologist should relocate the individual to a suitable location no less than 200 feet outside of the construction area. If western pond turtle is observed within the work area during construction, all work should stop until the turtle has left the site or can be relocated by a qualified biologist.

BIO-7 MITIGATION MEASURES FOR RAPTORS AND NESTING BIRDS

Ground disturbance and vegetation removal activities should be restricted to the non-breeding season (September 16 to January 31) when feasible. If construction activities occur during the nesting bird season (February 1 to September 15), the following mitigation measures are recommended to reduce impacts to protected raptor species, and protected nesting birds.

- A preconstruction nesting bird survey should be conducted no more than 14 days prior to initiation of ground disturbance and vegetation removal. The survey should be conducted within the study area and include a 150-foot buffer for passerines and 500-foot buffer for other raptors, as feasible. The survey should be conducted by a biologist familiar with the identification of avian species known to occur in the region.
- If nests are found, an appropriate avoidance buffer based on the nest location in relation to the project activity, the line-of-sight from the nest to the project activity, and bird behavior should be determined and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary.
- All construction personnel should be notified as to the existence of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities should occur within the buffer until the qualified biologist has confirmed that breeding/nesting is completed,

and the young have fledged the nest. Encroachment into the buffer should occur only at the discretion of the qualified biologist.

5.2 Jurisdictional Waters and Wetlands

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.*

One sensitive plant community was observed within the study area, *Quercus laevis* Forest and Woodland Alliance or Great Valley Oak Riparian Forest (Holland 1988). This vegetation community is not within the areas designated for development under the Master Plan and will be a designated conservation zone. Impacts could occur through encroachment by construction equipment or accidental release (spills/runoff) during construction. These impacts would be considered significant, however mitigation measures BIO-8s and 10 would reduce impacts to sensitive communities to less than significant.

5.3 Sensitive Plant Communities

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.*

There are two potential jurisdictional water features located within the study area. The Kings River falls under the jurisdiction of USACE, RWQCB, and CDFW, and West Reedley Ditch may fall under jurisdiction of RWQCB and CDFW. The proposed master plan has been designed to minimize impacts to jurisdictional areas and would avoid development in the riparian corridor and Kings River. However, impacts could occur through encroachment by construction equipment or accidental release (spills/runoff) during construction. Impacts to West Reedley Ditch may also occur from accidental release or from diversion to the underground stormwater system. If West Reedley Ditch would be diverted to an underground system consultation with CDFW and/or RWQCB and possible permitting may be required. Debris or runoff from the construction area that may enter water features on site or adjacent to the project and would be considered a significant impact under CEQA. Compliance with the Construction General Permit will require the development of a stormwater pollution prevention plan (SWPPP) for projects disturbing more than one acre. The SWPPP will include Best Management Practices (BMPs) that address runoff. Mitigation measure BIO-8, 9 and 10 are recommended to reduce impacts to potentially jurisdictional waters and wetlands to less than significant.

BIO-8 CONDUCT JURISDICTIONAL DELINEATION

Within 2 years prior to development under the Master Plan a qualified biologist should complete a jurisdictional delineation of West Reedley Ditch and map the edge of riparian habitat along the Kings River for avoidance. The jurisdictional delineation should determine the extent of the jurisdiction for CDFW and RWQCB and should be conducted in accordance with the requirement set forth by each agency. The result should be a preliminary jurisdictional delineation report that should be submitted to the City, RWQCB, and CDFW, as appropriate, for review and approval. Jurisdictional areas should

be avoided to the maximum extent possible. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDRs) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. In this event, the applicant shall provide evidence to the City that permits have been obtained from the RWQCB and CDFW.

BIO-9 PERFORM RESTORATION FOR IMPACTS TO WATERS AND WETLANDS

Impacts to waters and wetlands should be mitigated through one or more options to meet the required amount of mitigation as required based on direct impacts from project development under the mitigation ratios outlined below. Mitigation for impacts to waters and wetlands can be achieved through the acquisition and in-perpetuity management of similar habitat or through the in-lieu funding of such through an existing mitigation bank. Internal mitigation lands, or in lieu funding sufficient to acquire lands should provide habitat at a 1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. On site restoration of existing agricultural areas within the conservation zone may be sufficient to mitigate for impacts.

BIO-10 GENERAL MITIGATION MEASURES FOR JURISDICTIONAL WATERS AND WETLANDS

Potential jurisdictional features identified in the jurisdictional delineation report should be avoided. The edge of riparian habitat at the Kings River should be fenced for avoidance with high visibility plastic mesh-type construction fence, at least 20 feet from the dripline of the riparian corridor, or edge of the designated conservation zone, whichever is closer to the work area, to prevent encroachment by construction vehicles and personnel. Fencing should also include Environmentally Sensitive Area (ESA) signage every 200 ft. If potential jurisdictional areas at West Reedley Ditch can be avoided ESA fencing should be installed around this feature too. Additional measures to prevent impacts to jurisdictional features include: Any material/spoils generated from project activities should be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls (non-monofilament), covers, sand/gravel bags, and straw bale barriers, as appropriate.

Materials should be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank or edge of riparian at the Kings River.

Any spillage of material should be stopped if it can be done safely. The contaminated area will be cleaned, and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified.

5.4 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.*

Agricultural areas of the site provide limited opportunities for local wildlife movement, given the extent of disturbed land from agricultural practices being the study area's primary use. The Kings River

is an important corridor for local wildlife movement; however, this area would be zoned for conservation and no development in this area is proposed under the Master Plan. Development under the Master Plan is not expected to interfere with potential wildlife corridors within the study area or surrounding areas. Therefore, impacts to wildlife movement would be less than significant.

5.5 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 study area is located in unincorporated Fresno County. The County's 2000 General Plan includes goals and policies for conservation and open space. Under Fresno County's zoning code, the study area is currently zoned as Limited Agricultural (AL20) and Resource Conservation (RC40) and Open Conservation (O). The Proposed Master Plan includes Resource Conservation and Open Space (RCO) zoning for the riparian corridor and Kings River, therefore annexation and development under the Master Plan would not conflict with this ordinance.

The study area is located in the City of Reedley's SOI under the 2030 General Plan, which includes open space, conservation, and land use elements. Proposed development under the Master Plan would not conflict with any elements of the General Plan as development would be located in agricultural zoning, and the Master Plan includes Resource Conservation and Open Space (RCO) zoning. The City of Reedley does not have any significant tree or protected tree municipal codes. Therefore, the project will not conflict with local policies or ordinances protecting biological resources and no further mitigation is recommended.

5.6 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 study area is not included in any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plans. Therefore, there would be no conflict and no impacts.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. 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 wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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8 List of Preparers

Rincon Consultants, Inc.

Primary Author

- Morgan Craig, Associate Biologist

Technical Review

- Samantha Kehr, Senior Biologist
- Sherri Miller, Principal

Graphics

- Jacob Kato, GIS Analyst

Production

- Debra Jane Seltzer, Lead Document Formatting and Production Specialist

Field Reconnaissance Survey

- Morgan Craig, Associate Biologist
- Samantha Kehr, Senior Biologist

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Appendix A

Regulatory Setting

Regulatory Setting

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or animal species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g., U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e., California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, CNPS, The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the study area include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Central Valley Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; Species of Special Concern; nesting birds);
- Fresno County

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material into wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters (typically a navigable water). The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through avoidance and minimization to the extent practicable, followed by compensatory mitigation involving creation or enhancement of similar habitats.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) have jurisdiction over “waters of the State,” pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-

DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The RWQCB administers actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is restricted to direct mortality of a listed species and the law does not prohibit indirect harm by way of habitat modification. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated.

The CDFW also enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibits take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided.

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act. CDFW administers these requirements.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species in special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires

the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 *et seq.* of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream or lake.

Local Jurisdiction

Fresno County 2000 General Plan

The Fresno County 2000 General Plan provides policy direction for land use, development, open space protection, and environmental quality (Fresno County 2000). Special-status species and biological resources are protected under the Fresno County 2000 General Plan.

- Principles from the Fresno County 2000 General Plan seek to protect its productive agricultural land as the county's most valuable natural resource and to preserve potentially productive agricultural land. The proposed annexation project will not interrupt the active farming within the agricultural fields within the study area and will be allowed to continue.
- Principles from the Fresno County 2000 General Plan seek to protect and promote the careful management of the county's natural resources, such as its soils, water, air quality, minerals, and wildlife and its habitat, to support the county's economic goals and to maintain the county's environmental quality. The Kings River is located within the study area but will be zoned to the Resource Conservation and Open Space (RCO) zone district and will not be altered by the project.

City of Reedley 2030 General Plan

The City of Reedley 2030 General Plan (GP) includes the "Land Use, Open Space, and Conservation Element" which aims to assure "the conservation of the City of Reedley's agricultural, natural, and resource attributes." Additionally, policies in place protect riparian areas under the jurisdiction of CDFW and is intended to enhance drainages and aid in flood control (City of Reedley 2014). This is supported by several policies that are applicable to this project. They include the following:

SECTION 4.13 BIOLOGICAL RESOURCES

- Policy COSP4.13A-C of the City of Reedley 2030 General Plan states that urban development shall not impact the Kings River riparian habitat or conflict with any designated open space. 9.02 acres of the study area are pre-zoned to the Resource Conservation and Open Space (RCO) zone. Therefore, potential project impacts to these sensitive resources would be less than significant.
- Policy COSP4.14.1 of the City of Reedley 2030 General Plan states that the Kings River provides a significant open space element and constitutes the most important wildlife habitat in the planning area. The City is committed to a policy of preserving and protecting these open space resources and assuring their continued viability as open space and drainage corridors. The Kings River is located within the study area but will be zoned to the Resource Conservation and Open Space (RCO) zone district and will not be altered by the project.

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Appendix B

Site Photographs



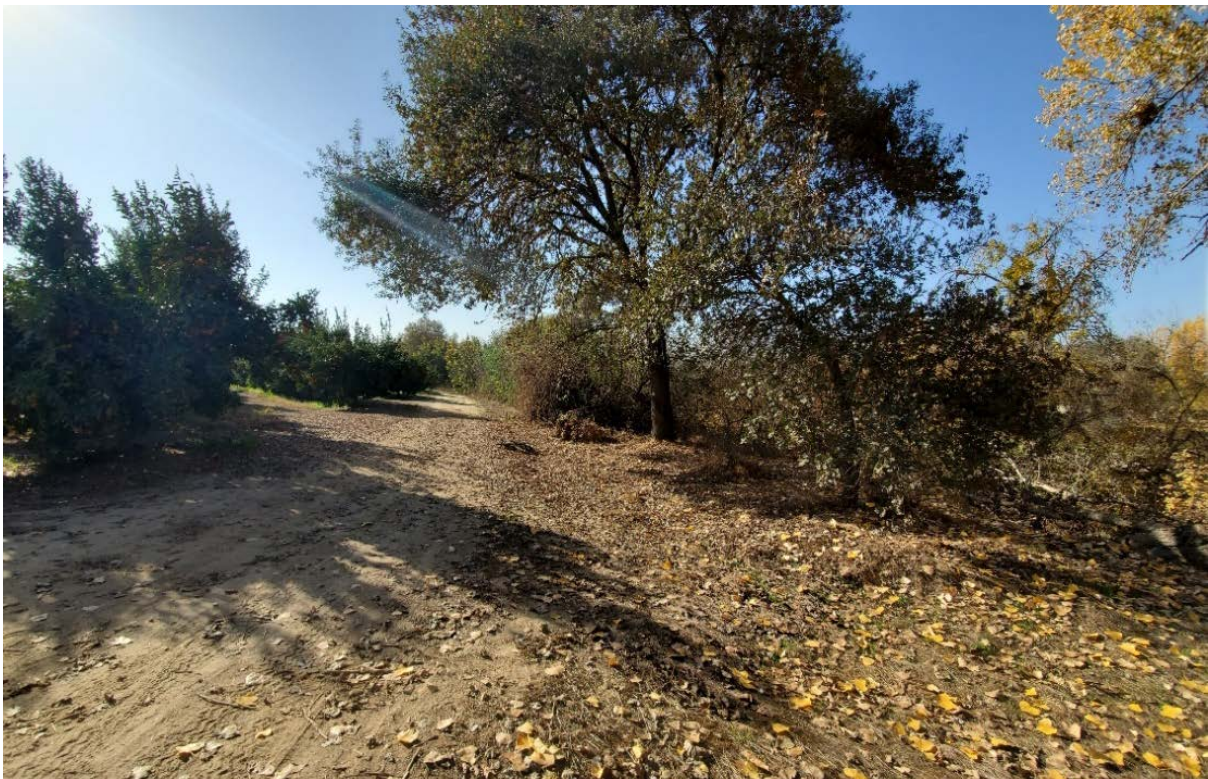
Photograph 1. Overview of the study area parallel to Manning Avenue, facing east.



Photograph 2. View of Manning Avenue's bridge and the Kings River, west of the study area, facing north.



Photograph 3. View of King's River, on the west side of the study area, facing south.



Photograph 4. Overview of agricultural field and riparian corridor, facing south.



Photograph 5. Representative photo of blue elderberry (*Sambucus cerulea*) in riparian habitat near Kings River, facing west.



Photograph 6. Overview of south side of study area, with citrus orchards in the south west corner, and residential development located south of the study area, facing east.



Photograph 7. View of the compacted dirt road between agricultural fields, facing north.



Photograph 8. View of agriculture field, facing northeast.



Photograph 9. View of active strawberry farming within project site, facing north.



Photograph 10. View of canal drainage located on the east side of the study area, facing northwest.



Photograph 11. View of canal on the northeast side of study area, facing northwest.



Photograph 12. View of a ruderal field towards the center of the project site.



Photograph 13. View of a disked agricultural field, facing west.



Photograph 14. View of an agriculture field, facing northwest.

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Appendix C

Floral and Faunal Compendium

Plant Species Observed within the Study Area on December 3, 2020

Scientific Name	Common Name	Status	Native or Introduced
Trees			
<i>Citrus sinensis</i>	orange	None	Introduced, Cultivated
<i>Ficus carica</i>	Common fig	None	Introduced, Cal-IPC Moderate
<i>Juglans hindsii</i>	Northern California walnut	None	Introduced, Cultivated
<i>Morus</i>	White mulberry	None	Introduced
<i>Nicotiana glauca</i>	Tobacco tree	None	Introduced
<i>Pistacia</i>	Chinese pistachio	None	Introduced
<i>Populus fremontii</i>	Fremont cottonwood	None	Native
<i>Populus nigra</i>	Lombardy poplar	None	Introduced
<i>Quercus lobata</i>	Valley oak	None	Native
<i>Salix exigua</i>	Narrow-leaved willow	None	Native
<i>Salix lasiolepis</i>	Arroyo willow	None	Native
<i>Sequoia sempervirens</i>	Coast redwood	Endangered	Native
<i>Washingtonia robusta</i>	Mexican fan palm	None	Introduced
Shrubs			
<i>Hedera helix</i>	English ivy	None	Introduced, Cal-IPC High
<i>Opuntia</i>	Prickly pear	None	Native
<i>Rubus idaeus</i>	Red raspberry	None	Introduced, Cultivated
<i>Rubus ursinus</i>	California blackberry	None	Native
<i>Sambucus nigra</i>	Blue elderberry	None	Native
<i>Vitis californica</i>	California wild grape	None	Introduced; Cultivated
Ferns			
<i>Equisetum hyemale</i>	Scouringrush horsetail	None	Native
Herbs			
<i>Brassica oleracea</i>	cabbage	None	Introduced, Cultivated
<i>Brassica nigra</i>	black mustard	None	Introduced, Cal-IPC Moderate
<i>Carex obnupta</i>	Slough sedge	None	Native
<i>Chenopodium murale</i>	nettle leaf goosefoot	None	Introduced
<i>Cressa truxillensis</i>	spreading alkaliweed	None	Native
<i>Cucurbita</i>	squash	None	Introduced, Cultivated
<i>Cyperus eragrostis</i>	Tall cyperus	None	Native
<i>Erigeron canadensis</i>	horseweed	None	Native
<i>Fragaria ananassa</i>	strawberry	None	Introduced, Cultivated
<i>Heterotheca grandiflora</i>	Telegraphweed	None	Native
<i>Malva parviflora</i>	cheeseweed mallow	None	Introduced
<i>Medicago polymorpha</i>	California burclover	None	Introduced, Cal-IPC limited
<i>Mentha</i>	mint	None	Introduced; escaped cultivar
<i>Primula vulgaris</i>	Common primrose	None	Native
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	None	Introduced

Scientific Name	Common Name	Status	Native or Introduced
<i>Raphanus raphanistrum</i>	Wild radish	None	Introduced
<i>Rosa</i>	rose	None	Introduced; Cultivated
<i>Rumex crispus</i>	curly dock	None	Introduced, Cal-IPC limited
<i>Salsola tragus</i>	Russian thistle	None	Introduced, Cal-IPC Limited
<i>Solanum lycopersicum</i> var. <i>cerasiforme</i>	Cherry tomato	None	Introduced, Cultivated
<i>Sonchus oleraceus</i>	Common sowthistle	None	Introduced
Grasses			
<i>Cynodon dactylon</i>	Bermuda grass	None	Introduced, Cal-IPC Moderate
<i>Saccharum officinarum</i>	Sugarcane	None	Native
Cal-IPC – California Invasive Plant Council			

Animal Species Observed Within the Study Area on December 3, 2020

Scientific Name	Common Name	Status	Native or Introduced
Reptiles			
<i>Sceloporus occidentalis</i>	Western fence lizard	None	Native
Birds			
<i>Aix sponsa</i>	Wood duck	None	Native
<i>Aphelocoma californica</i>	Western scrub jay	None	Native
<i>Melanerpes formicivorus</i>	Acorn woodpecker	None	Native
<i>Melospiza crissalis</i>	California towhee	None	Native
<i>Petrochelidon pyrrhonota</i>	Cliff swallow	None	Native
<i>Sturnus vulgaris</i>	Common starling	None	Native
<i>Thryomanes bewickii</i>	Bewick's wren	None	Native
<i>Zenaidura macroura</i>	mourning dove	None	Native
<i>Zonotrichia leucophrys</i>	White-crowned sparrow	None	Native
Mammals			
<i>Procyon lotor</i>	raccoon	None	Native
CDFW: SSC – State Species of Special Concern; WL – State Watch List; FP – State Fully Protected			

Appendix D

Special-status Species Potential to Occur Evaluations

Special-status Plant Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Plants and Lichens				
<i>Atriplex cordulata</i> <i>var. erecticaulis</i> Earlimate orache	None/None G3T1/S1 1B.2	Valley and foothill grassland. 40 - 100 m. annual herb. Blooms Aug- Sep (Nov)	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Atriplex depressa</i> brittlescale	None/None G2/S2 1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools. alkaline, clay. 1 - 320 m. annual herb. Blooms Apr- Oct	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Atriplex</i> <i>minuscula</i> lesser saltscale	None/None G2/S2 1B.1	Chenopod scrub, Playas, Valley and foothill grassland. alkaline, sandy. 15 - 200 m. annual herb. Blooms May-Oct	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Delphinium</i> <i>recurvatum</i> recurved larkspur	None/None G2/S2 1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland. alkaline. 3 - 790 m. perennial herb. Blooms Mar-Jun	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Eryngium</i> <i>spinosepalum</i> spiny-sepaled button-celery	None/None G2/S2 1B.2	Valley and foothill grassland, Vernal pools. 80 - 975 m. annual / perennial herb. Blooms Apr-Jun	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Euphorbia</i> <i>hooveri</i> Hoover's spurge	FT/None G1/S1 1B.2	Vernal pools. 25 - 250 m. annual herb. Blooms Jul- Sep (Oct)	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Helianthus</i> <i>winteri</i> Winter's sunflower	None/None G2/S2 1B.2	Cismontane woodland, Valley and foothill grassland. openings on relatively steep south- facing slopes, granitic, often rocky, often roadsides. 125 - 2565 m. perennial shrub. Blooms Jan-Dec	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Imperata</i> <i>brevifolia</i> California satintail	None/None G4/S3 2B.1	Chaparral, Coastal scrub, Mojavean desert scrub, Meadows and seeps (often alkali), Riparian scrub. mesic. 0 - 1215 m. perennial rhizomatous herb. Blooms Sep-May	Not Expected	There is one known occurrence within 5 miles of the study area, however it is a historical occurrence from the general area of Reedley in 1933, and suitable desert scrub or riparian scrub is not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Lasthenia chrysantha</i> alkali-sink goldfields	None/None G1/S1 1B.1	vernal pools. alkaline. 0 - 200 m. annual herb. Blooms Feb-Apr	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Lasthenia glabrata</i> ssp. <i>Coulteri</i> Coulter's goldfields	None/None G4T2/S2 1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools. 1 - 1220 m. annual herb. Blooms Feb-Jun	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	FT/SCE G1/S1 1B.1	Vernal pools. 10 - 755 m. annual herb. Blooms Apr-Sep	Not Expected	There is one known occurrence within 5 miles of the study area, however, this is a historic record of an extirpated population from 1987, and no suitable habitat for the species exists within the study area.
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	FT/SCE G1/S1 1B.1	Cismontane woodland, Valley and foothill grassland. adobe clay. 90 - 800 m. annual herb. Blooms Feb-Apr	Not Expected	There is one known occurrence within 5 miles of the study area, however, this is an extirpated population, and suitable valley or foothill grasses are not present.
<i>Layia heterotricha</i> pale-yellow layia	None/None G2/S2 1B.1	Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland. alkaline or clay. 300 - 1705 m. annual herb. Blooms Mar-Jun	Not Expected	The study area is outside of the elevation range of the species. There are no known occurrences within 5 miles of the study area and no suitable habitat is present.
<i>Puccinellia simplex</i> California alkali grass	None/None G3/S2 1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools. Alkaline, vernal mesic; sinks, flats, and lake margins. 2 - 930 m. annual herb. Blooms Mar-May	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	None/None G3/S3 1B.2	Marshes and swamps (assorted shallow freshwater). 0 - 650 m. perennial rhizomatous herb (emergent). Blooms May-Oct (Nov)	Low Potential	There are 5 known occurrences of this species within 5 miles of the study area from agricultural ditches .
<i>Tuctoria greenei</i> Greene's tuctoria	FE/SCR G1/S1 1B.1	Vernal pools. 30 - 1070 m. annual herb. Blooms May-Jul (Sep)	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.

Regional Vicinity refers to within a 9-quad search radius of site.

FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species

SE = State Endangered ST = State Threatened SC = State Candidate SR = State Rare

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
CRPR (CNPS California Rare Plant Rank)				
1A=Presumed Extinct in California				
1B=Rare, Threatened, or Endangered in California and elsewhere				
2A=Plants presumed extirpated in California, but more common elsewhere				
2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere				
CRPR Threat Code Extension				
.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)				
.2=Fairly endangered in California (20-80% occurrences threatened)				
.3=Not very endangered in California (<20% of occurrences threatened)				

Special-status Animal Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	Although the site is within this species known range, there are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT/None G3T2/S3	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for stressed elderberries.	High Potential	There is one known occurrence approximately 0.5 miles south of the study area in the riparian corridor along the Kings River and blue elderberry is present.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	FE/None G4/S3S4	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT/ST G2G3/S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not Expected	No suitable habitat for the species exists within the study area and there are no occurrences within 5 miles of the study area.
<i>Lithobates pipiens</i> northern leopard frog	None/None G5/S2 SSC	Native range is east of Sierra Nevada-Cascade Crest. Near permanent or semi-permanent water in a variety of habitats. Highly aquatic species. Shoreline cover, submerged and emergent aquatic vegetation are important habitat characteristics.	Not Expected	There are no known occurrences within 5 miles of the study area and no suitable habitat is present within the study area.
<i>Rana boylei</i> foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	Suitable habitat may occur in the study area in the Kings River, however there are no occurrences within 5 miles of the study area or the Kings River on the valley floor.
<i>Spea hammondi</i> western spadefoot	None/None G3/S3 SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not Expected	There is no suitable upland or breeding habitat within the study area, and there are no known occurrences within 5 miles.
Reptiles				
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Low Potential	There are no known occurrences within 5 miles of the study area, however suitable basking sites and aquatic habitat may be present in the Kings River and the site is within this species known range.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Birds				
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low Potential	There is one known occurrence within 5 miles of the study area. No burrowing owl or burrowing owl sign were observed within the study area, but ground squirrel burrows were observed along the margins of the study area in ruderal habitat.
<i>Buteo swainsoni</i> Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low Potential	No occurrences have been recorded by CNDDB within 5, however there are several occurrences in ebird along the Kings River adjacent the study area, and a small amount of suitable foraging habitat occurs within ruderal areas and trees along the riparian corridor could provide marginal nesting habitat.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not Expected	Suitable habitat exists within the riparian corridor of the Kings River; however, no occurrences have been recorded within 5 miles of the study area and the only occurrence within the 9 quad query is a historical occurrence from 1902.
<i>Lanius ludovicianus</i> loggerhead shrike	None/None G4/S4 SSC	Open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. Frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses,	Not Expected	No suitable habitat occurs within the study area, and there are no occurrences within 5 miles.
Mammals				
<i>Antrozous pallidus</i> pallid bat	None/None G5/S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	There is one known occurrence within 5 miles of the study area, however suitable deserts, grasslands, and scrub habitats are not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
<i>Eumops perotis californicus</i> western mastiff bat	None/None G5T4/S3S4 SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Not Expected	There are no known occurrences within 5 miles and suitable natural arid habitats are not present.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/ST G4T2/S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	Low Potential	There are no occurrences within 5 miles of the study area and the site is heavily disturbed, however, one large ground squirrel burrow was observed within the study area near the Kings River and the site is within this species known range.
Regional Vicinity refers to within a 9-quad search radius of site.				
FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species FS = Federally Sensitive				
SE = State Endangered ST = State Threatened SC = State Candidate SS = State Sensitive				
SSC = CDFW Species of Special Concern SFP = State Fully Protected				