
APPENDIX I

Biological Resources Reconnaissance Survey and CEQA Analysis

Report of Findings

Biological Resources Reconnaissance Survey and CEQA Analysis Antonio Azevedo Dairy #4 Expansion Project

Location:
1257 W. Roosevelt Road
El Nido, CA 95317
37° 8' 30.93" N, 120° 30' 48.52" W
Permit Sought: Conditional Use Permit No. CUP20-005



Prepared for: Environmental Planning Partners, Inc.
2934 Gold Pan Court, Suite 3
Rancho Cordova, CA 95670-6136

Prepared by: Padre Associates, Inc.
350 University Avenue, Suite 250
Sacramento, CA 95825
(916) 333-5920

Date of Biological Resources Reconnaissance Surveys: March 22, 2021
Date of Report: April 12, 2021 (Revised July 14, 2021)

CONTENTS

1 Summary	1
2 Introduction	1
2.1 Purpose of the Study	1
2.2 Applicable Laws and Regulations	2
2.3 Project Location	5
2.4 Project Description	5
2.4.1 Existing Facilities.	5
2.4.2 Proposed Expansion.	6
3 Methods and Survey Limitations	9
3.1 Methods	9
3.2 Limitations	10
4 Survey Results	10
4.1 Physical Characteristics	10
4.2 Vegetation and Wildlife	10
4.3 Sensitive Habitats, Special-Status Plants, and Special-Status Wildlife	12
4.4 Potentially Jurisdictional Waters/Wetlands.....	27
5 Project Impact Analysis	29
5.1 Standards of Significance	29
5.2 Impacts to Biological Resources	30
6 References	41

TABLES

Table 1. Existing and Proposed Herd Size at Azevedo #4.....7

Table 2. Wildlife Species Recorded in Project Vicinity.....12

Table 3. Special-Status Species Reported on the CNDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #415

FIGURES

Figure 1. Regional Location

Figure 2. Project Location

Figure 3. Proposed Project and Dairy Land Application Areas

Figure 4. Special-Status Species Map

Figure 5. Site Photographs

APPENDICES

Appendix A. Biological Resource Policies from the 2030 Merced County General Plan

Appendix B. USFWS Species List

Appendix C. CNDDDB Query Results

Appendix D. National Wetland Inventory Map

Appendix E. Summary of Literature Reviewed on the Effects of Night Lighting on Wildlife

1 SUMMARY

The existing Antonio Azevedo Dairy #4 is located on approximately 16± acres of an existing farm totaling approximately 78.2 acres in an unincorporated area of Merced County in the El Nido area of the County. Approximately 16 acres of the Dairy site is used to support existing facilities, including 172,175 square feet of structures. Approximately 61 acres of the Dairy are in crop production and used for application of manure process water and solid manure. The Azevedo Heifer Ranch is an existing heifer facility (operated separately) located east of the Antonio Azevedo Dairy #4 along West Roosevelt Road. The heifer facility consists of 80± acres, including approximately 70 acres of cropland for manure application from the heifer facility. The proposed Project includes the expansion of the existing dairy facility and merging the heifer facility with the existing dairy facility into one combined operation. The applicant proposes to modify and expand the existing dairy to house 2,500 milk cows, 500 dry cows, and 1,000 support stock and to merge the existing heifer facility with the existing dairy facility. The proposed expansion would increase the herd of dairy cattle by 2,270 animals from the existing numbers. The proposed project also includes the construction of supporting buildings and structures including three new shade barns, a new feed storage area, new manure storage area, and a new mechanical manure separator. The project would also construct two new wastewater storage ponds and decommission an existing wastewater storage pond. The new structures would consist of approximately 143,950 square feet of construction and the conversion of approximately 26 of cropland to dairy facilities.

A reconnaissance-level biological survey was conducted on March 22, 2021 by biologists from Padre Associates, Inc. (Padre). A number of special-status species, including Swainson's hawk, tricolored blackbird, and burrowing owl have been reported within approximately five miles of the Azevedo Dairy #4. Other raptors and migratory birds are known to forage in the area.

2 INTRODUCTION

2.1 PURPOSE OF THE STUDY

The purpose of this report is to describe the findings of a biological resources reconnaissance survey and California Environmental Quality Act (CEQA) Analysis conducted for the Antonio Azevedo Dairy #4 Expansion located south of the City of Merced and north of El Nido, in rural Merced County, California. The Biological Reconnaissance Survey was conducted on March 22, 2021 to describe and map biological resources at the project site and surrounding areas and determine whether suitable habitat is present for special-status or sensitive species. The CEQA Analysis included a review of current biological resource databases, previous studies, and current

conditions to evaluate the project's potential impact to biological resources pursuant to CEQA standards.

2.2 APPLICABLE LAWS AND REGULATIONS

Relevant federal, state, and local regulations that govern the biological resources of the project area are briefly explained in this section.

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES

According to CEQA Guidelines §15380, a special-status species includes endangered, rare, or threatened species. These include a plant or animal species, subspecies, or variety that is:

- Listed endangered, threatened, or a candidate species under the federal Endangered Species Act (FESA);
- Listed endangered, threatened, or a candidate species under the California Endangered Species Act (CESA);
- Listed as a species of special concern by the California Department of Fish and Wildlife (CDFW);
- A plant species that is on the California Native Plant Society's (CNPS) List 1 or 2; and/or
- Considered rare, threatened, or endangered under CEQA Guidelines 15380(d) as the species survival and reproduction in the wild are in immediate jeopardy, present in such small numbers throughout all or a significant portion of its range that it may become endangered, or likely to become endangered within the foreseeable future throughout all or a significant portion of its range..

In addition, species protected by specific federal or state acts or local ordinances are considered special-status species.

FEDERAL

Endangered Species Act: FESA was passed to protect species threatened with extinction and provides measures to prevent and alleviate the loss of species and their habitats. The FESA prohibits take of a listed species, as well as trade in endangered or threatened species. If potential exists for a proposed project to adversely affect federally listed, proposed, or candidate species, then consultation with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) is required. Consultations are conducted under Sections 7 or 10 of FESA depending on the involvement by the federal government.

Under Section 7, the Services are authorized to issue Incidental Take Permits (ITP) for the take of a listed species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency. A Biological Assessment is usually required as part of the Section 7 consultation to provide sufficient information for the Services to fully determine the project's potential effect on listed species.

If there is no federal involvement in a proposed project, the applicant must consult with USFWS and/or NMFS under Section 10 of the FESA. Section 10 of the FESA allows USFWS and/or NMFS to issue a permit for take of a listed species incidental to, and not for the purpose of, carrying out an otherwise lawful activity. The action may not jeopardize the continued existence of a listed species or its critical habitat. A Habitat Conservation Plan (HCP) must be prepared and approved by USFWS prior to issuing a permit under Section 10.

Migratory Bird Treaty Act (MBTA) of 1918. The MBTA protects migratory birds and their nests. Under the Act, it is unlawful to take, import, export, possess, buy, sell, purchase, or barter any migratory bird. Feathers or other parts, nests, eggs, and products made from migratory birds are also covered by the MBTA. Take is defined as pursuing, hunting, shooting, poisoning, wounding, killing, capturing, trapping, or collecting. The MBTA does not prohibit incidental take.

Section 404 of the Clean Water Act. The U.S. Army Corps of Engineers (ACOE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredge and fill material into jurisdictional "waters of the United States" (WoUS) and wetlands under Section 404 of the Clean Water Act. Waters of the United States include territorial seas, navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, perennial and intermittent tributaries to waters of the United States, and wetlands that are adjacent to jurisdictional waters of the United States.

Section 10 of the Rivers and Harbors Act of 1899. The ACOE regulates activities affecting "navigable waters of the United States" under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403). Navigable waters are defined as "*...those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.*" Structures or work under or over a navigable WoUS is considered to have an impact on the navigable capacity of the waterbody.

STATE OF CALIFORNIA

California Endangered Species Act. CESA was enacted to protect fish, wildlife, and plant species in danger of, or threatened with, extinction in the State of California (Fish and

Game Code §2051). CESA, which is administered by the California Department of Fish and Wildlife (CDFW), prohibits “take” of a state-listed species. Take is defined as “hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill” (Fish and Game Code §86).

Unlawful Destruction of Nest or Eggs, Fish and Game Code Section 3503. This section of the California Fish and Game Code prohibits the take, possession, or needless destruction of nests or eggs of birds.

Fully Protected Species, Fish and Game Code Sections 3511, 4700, 5050, and 5515. This section of the California Fish and Game Code provides particular and special state protection to a list of 37 wildlife species and prohibits take or possession “at any time” with few exceptions. The CDFW cannot authorize incidental take of fully protected species.

Migratory Bird Treaty Act, Fish and Game Code Section 3513. This section of the California Fish and Game Code complies with and strengthens state support for the MBTA. The section makes it unlawful to take or possess any nongame migratory bird or part of any such migratory nongame bird except under the special provisions in the federal MBTA.

Section 1600 Lake/Streambed Alteration Agreement (LSAA). The CDFW also regulates activities that may impact streambeds and lakes. Completion of a LSAA with the CDFW is required before any work begins that will substantially change or use any material from the bed, bank or channel within jurisdictional areas.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act mandates that waters of the State of California shall be protected. Current policy in California is that activities that may affect waters of the State shall be regulated to attain the highest quality. Waters of the State include any surface water or groundwater, including saline waters, and any aquatic features that meet the state definition of a wetland, within the boundaries of the state. The Porter-Cologne Act establishes that the state assumes responsibility for implementing portions of the federal Clean Water Act, rather than operating separate state and Federal water pollution control programs in California. Consequently, the state is involved in activities such as setting water quality standards, issuing discharge permits, and operating grant programs. Pursuant to Section 401 of the Clean Water Act, the Corps cannot issue a federal permit until the State of California first issues a water quality certification to ensure that a project will comply with state water quality standards. The Regional Water Quality Control Board issues water quality certifications.

MERCED COUNTY

Merced County Regulations

The unincorporated lands of Merced County fall under the jurisdiction of the County. The Land Use Element and the Natural Resource Element of the 2030 Merced County General Plan contain goals, objectives, and policies pertaining to biological resources of Merced County (Merced County, 2013). Goals, objectives, and policies that are relevant to biological resources are presented in Appendix A.

2.3 PROJECT LOCATION

The Antonio Azevedo Dairy #4 is located on 16± acres of an existing farm totaling approximately 78.2 acres in unincorporated Merced County. The project dairy site is located on the southeast corner of West Roosevelt Road and Vineyard Way near El Nido in the southern part of Merced County in the San Joaquin Valley of California (See Figures 1 and 2). The project cropland application area consists of 61 ± acres located on a portion of the dairy parcel APN 074-110-026. The project site is located in Section 23, Township 9 South, Range 13 East, Mount Diablo Base and Meridian and at 37° 8' 30.93"N, 120° 30' 48.52" W (Figure 1 and 2).

The Azevedo Heifer Ranch is an existing heifer facility east of the Antonio Azevedo Dairy #4 on West Roosevelt Road on a portion of parcel APN 074-110-033. The heifer facility parcel consists of 80± acres, including approximately 70 acres of cropland for manure application from the heifer facility (Figure 2).

2.4 PROJECT DESCRIPTION

2.4.1 EXISTING FACILITIES. The existing Azevedo Dairy #4 facilities include the following:

- shade barns
- open corrals
- shop
- milking parlor
- hay barn
- wastewater storage pond

There are approximately 172,175 square feet (sq-ft) of structures that comprise the existing active dairy facilities.

Approximately 61± acres of the project area are currently used for the production of crops and the application of manure process water and/or solid manure. Field application wastewater would include surface irrigation. The remaining project acres consist of field roads and ancillary farm uses.

The Azevedo Heifer Farm, a separate heifer facility also owned by the applicant, is located east of the existing dairy facility and is currently used to house heifers from several dairies in the vicinity. The existing heifer facility includes corrals with no shade and a wastewater

settling pond. The heifer facility includes approximately 70 acres of cropland for manure application from the heifer facility.

As of November 2020, there were approximately 370 milk cows and 61 dry cows with 300 support stock, totaling 731 animals at the dairy. The predominant breed of cows is Holstein. There are 999 heifers housed at the nearby heifer facility.

The existing facility consists of flush and scrape systems that are used to collect and process wastewater and solid manure. Animal wastes from barns and other concrete-surfaced areas are flushed with recycled water to an on-site waste management system that consists of one wastewater storage pond (retention pond). The area of active dairy facilities has been graded to direct corral runoff to the existing waste management system. Stormwater runoff from impervious surfaces and roofed areas is routed to the wastewater pond. Recycled water is used to clean the milk parlor floor and is the source of sprinkler pen water.

Dry manure is removed from corrals twice per year. A portion of the dried manure is stockpiled for bedding, which consists of dry manure and almond shells. There is no manure composting onsite. All solid removal is conducted annually by an outside manure hauling company. Manure solids are separated in the solids settling basins, there is no mechanical separator. As reflected in the NMP, approximately 1,250 tons of solid manure is exported from the dairy and applied to offsite fields not owned by the dairy operator. At the existing heifer facility, approximately 1,625 tons of corral solids is exported and applied to offsite fields.

Most of the crops grown on site are used for dairy feed crops and supplement imported grain and hay. Crops include oats silage-soft dough, corn silage, and sudan grass silage. There is no feed currently stored on site.

2.4.2 PROPOSED EXPANSION. The project sponsor has applied for a new Conditional Use Permit (CUP20-005) from Merced County to modify and expand the existing dairy to house 2,500 milk cows, 500 dry cows, and 1,000 support stock (Table 1). The proposed application also includes merging the existing heifer facility with the existing dairy operations. Considering the existing animals at the dairy facility and the heifer facility, the proposed expansion would represent an increase of 2,270 animals from existing numbers.

<p align="center">Table 1 Existing and Proposed Herd at the Antonio Azevedo Dairy #4 and Nearby Azevedo Heifer Farm</p>							
	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo.)	Calves (4-6 mo.)	Calves (0-3 mo.)	Total Animals
Existing Dairy	370	61	140	100	60	0	731
Existing Heifer	0	0	500	499	0	0	999
Total Existing Animals	370	61	640	599	60	0	1,730
Proposed	2,500	500	334	333	333	0	4,000
Change	2,130	439	-306	-266	273	0	2,270

Note: This evaluation considers maximum buildout.

Sources: *Existing Conditions Nutrient Management Plan (July, 2017)*; *Azevedo Heifer Farm Existing Conditions Nutrient Management Plan (January, 2020)*; *Proposed Conditions Nutrient Management Plan (March, 2020)*.

The proposed project would include the construction of supporting buildings and structures at the existing dairy, including three new shade barns, approximately 24,500 square feet, 35,500 square feet, and 83,950 square feet. The proposed project also includes a new feed storage area, a new manure storage area, and a new mechanical manure separator. Two new wastewater ponds would be constructed at the dairy site and the existing wastewater pond would be decommissioned. With implementation of the proposed dairy expansion, new structures would consist of approximately 143,950 square feet of construction, for a total of 316,125 square feet of existing and proposed structures onsite.

Cropped acreage associated with the expanded dairy operations would include approximately 105 acres, including Field 1 (35 acres) associated with the existing dairy operation and Field 2 (70 acres) associated with the existing heifer facility. Construction of the proposed facilities would result in the conversion of approximately 26 acres of cropland, including existing Field #2 (15 acres) and Field #3 (11 acres) (Figure 3). Therefore, total cropped acreage would be reduced from 131 acres (61 acres of cropland associated with the existing dairy facility operations and 70 acres associated with the existing heifer facility operations) to 105 acres with implementation of the proposed expansion. Crops grown on site would be used for dairy feed crops and supplement imported grain and hay. The proposed dairy operations would include individual piles for corn and wheat for a total of two new silage piles.

Animal wastes from freestall and other concrete-surfaced areas would continue to be flushed to an on-site waste management system, except for solid manure within corral areas, which would continue to be scraped. Liquid manure would continue to be directed to the wastewater storage ponds.

Stormwater runoff from impervious surfaces and roofed areas would continue to be routed to the wastewater pond, except for rainwater from one new animal shelter roof, which

would be routed to a nearby field. Wastewater would continue to be mixed with irrigation water and applied to the fields.

Solid manure that accumulates within corrals would continue to be scraped. With the proposed dairy expansion, dry manure would be composted on site. Dry manure and almond shells would continue to be used for bedding and additional manure would be sold and hauled offsite for use as fertilizer and soil amendments. As reported in the NMP, exported solid manure applied to off-site agricultural fields not owned by the project applicant would increase from 1,250 tons of solid manure from the dairy facility and 1,625 tons of corral solids from the heifer facility (currently) to 25,000 tons of solid manure with the proposed expansion (approximately 78 percent of previously separated solids). While the exact location of these off-site cropland parcels may vary throughout operations, the disposal of manure at off-site locations and the acreage necessary to properly dispose of manure liquids and solids are accounted for in the project NMP.

Operations at the dairy would continue to occur 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. With implementation of the proposed project, the number of employees would increase from 8 to approximately 15 workers.

3 METHODS AND SURVEY LIMITATIONS

3.1 METHODS

Padre Associates, Inc. (Padre) evaluated the potential biological resources impacts of the Azevedo Dairy #4 Expansion Project through a review of available data and a site visit. Prior to the site visit, Padre conducted a query of the California Natural Diversity Database (CNDDDB) for the USGS 7.5' topographic quadrangle including the project area (Sandy Mush) and for the surrounding eight USGS topographic quads (Arena, Atwater, Merced, El Nido, Bliss Ranch, Delta Ranch, Santa Rita Bridge, and Turner Ranch) (CDFW, 2021). The CNDDDB record search reports list special-status species and habitat locations, and provide specific information (e.g., state and federal protection status; global and state rank; CDFW listing status; rare plant status; specific location data; existence status; dates last observed; habitat preferences and other notes) for each recorded occurrence (see Appendix C).

Padre also conducted a query of the California Native Plant Society's Electronic Inventory (CNPS, 2021) for the same quadrangles to provide information on additional plant species of concern that may occur within the project site and surrounding vicinity. A species list was obtained from the USFWS website for the Sandy Mush quadrangle and Merced County to provide information on federally listed species that have the potential to occur in the vicinity of the proposed project. A query of the USFWS National Wetland Inventory (NWI) Map for the Sandy Mush quadrangle was conducted for information regarding mapped wetlands in the project area.

The results of the database search and location analysis were used to determine a) if any sensitive resources had been previously reported onsite or in the immediate local vicinity of the Azevedo Dairy #4 facility and b) which sensitive biological resources should be the focus of the biological reconnaissance survey. Only those species with the potential to occur on the project site were given consideration in this report.

Padre conducted a biological reconnaissance survey of the project site on March 22, 2021. The purpose of the survey was to characterize general biological resources supported by the project site and evaluate the potential for sensitive biological resources to occur on the site and be affected by implementation of the proposed project. The surveys included evaluating primary vegetation cover types, assessing habitat suitability for known local wildlife, and recording observed plant and animal species (Table 2). The survey was conducted during the day between 9:30 am and 12:30 p.m. The weather was sunny with a light breeze. The reconnaissance survey involved surveying the entire site, including on-foot and windshield evaluations of principal facilities and the project site, including surveys of the crop lands proposed for expansion of the dairy facilities. Berms along roadsides and ditches observed by the biologists during the reconnaissance

surveys were checked for signs of use by burrowing owl, American badger, and/or San Joaquin kit fox. Agricultural fields onsite and in surrounding areas were surveyed for signs of nesting activity and flocks of blackbirds were observed for tricolored blackbird. Trees were limited onsite, but large trees in the surrounding area were surveyed for evidence of previous years raptor nests. Dominant flora and fauna were noted (when present) and identified to the lowest possible taxon.

3.2 LIMITATIONS

The reconnaissance-level field survey was conducted in early spring before the blooming period of special-status plant species reported from the project area. The survey was conducted at a reconnaissance level, not a focused or protocol survey level. The survey lasted approximately two hours in the early part of the day but did not include dawn or dusk surveys or extended observations.

4 SURVEY RESULTS

4.1 PHYSICAL CHARACTERISTICS

The existing Azevedo Dairy #4 is located on a 16-acre portion of a 78.2-acre farm in an unincorporated area of Merced County. Existing operations occur within a relatively flat and partially graded area on bare and exposed soil within an existing dairy. Section 2.4.1 details the existing infrastructure and vegetated croplands on the site.

4.2 VEGETATION AND WILDLIFE

The 16-acre active dairy portion of the site is denuded of vegetation due to the developed dairy facilities and presence of the cattle herd that prevents the growth of vegetation. Agricultural fields surround the dairy on all sides that are used primarily for production of feed crops. The agricultural fields onsite support the production of oats silage, corn silage, and sudan grass silage. Crop fields onsite were in oat production at the time of field surveys. The majority of irrigation water onsite is conveyed through underground pipeline infrastructure and the only agricultural ditch with surface water present at the time of field surveys occurs in a U-shaped configuration south of the existing wastewater treatment ponds and is part of the irrigation and tailwater return system use to support application of wastewater and collection of tailwater returns used for irrigation of the crop fields.

The Los Banos Wildlife Area is approximately 13.5 miles west of the project site and the Merced National Wildlife Refuge is approximately 3.8 miles west of the project site. Both are operated by the California Department of Fish and Wildlife and are part of the Grasslands Ecological Area, a mosaic of grassland and wetland habitat remaining in the San Joaquin Valley in the form of Wildlife Areas, Wildlife Refuges, and conservation

lands. The Grasslands Ecological Area is generally north and west of the Azevedo Dairy #4 site.

Limited native or naturalized vegetation occurs onsite due to the extensive disturbance of the active dairy facility and the croplands. Annual grassland and ruderal (weedy) plant species occur along road shoulders and at the perimeter of agricultural fields. Species observed include Italian rye grass (*Festuca perennis*), farmer's foxtail (*Hordeum murinum* ssp. *leporinum*), annual blue grass (*Poa annua*), cheeseweed (*Malva parviflora*), black mustard (*Brassica nigra*), wild radish (*Raphanus sativus*), chickweed (*Stellaria media*), and shepherd's purse (*Capsella bursa-pastoris*). The NWI query identified riverine features in ditch configurations along the perimeter of the agricultural fields and a freshwater emergent wetland at the location of the wastewater treatment ponds; however, field surveys determined that the majority of irrigation is currently conveyed through underground pipelines with occasional access points through caps at the surface. In some locations between the road and the field, a small depression occurred above the pipeline alignments, but these areas are not ponded with stormwater long enough to develop wetland characteristics.

As shown in Table 2, wildlife species observed within or adjacent to the dairy included primarily terrestrial and some wetland species, primarily occurring at the wastewater treatment ponds. No ground squirrel colonies or other burrows were observed in large concentrations; however, a few scattered burrows were observed along the base of the animal bedding stockpiles. These burrows showed signs of deterioration and occurred in an area with consistent disturbance associated with movement of animal bedding to and from the stockpiles. Therefore, these burrows would not provide good habitat for burrowing owl or San Joaquin kit fox.

The climate in the project vicinity is hot and dry in the summer, and cold and moist in the winter. Between winter rains are periods of cloudy, foggy, or sunny weather. Based on a 117 period of record at the Merced AP Meteorological Station, the average annual maximum temperature is 76.3° F, peaking in July at 97.1 ° F. The average annual minimum temperature is 47.1° F, with the lowest being in December at 35.6 ° F (Western Regional Climate Center, 2021). The soil types occurring on the site are Pachappa sandy loam, deep over hardpan, slightly saline-alkali, 0 to 1 percent slope (Pfa); Fresno loam, moderately saline-alkali, 0 to 1 percent slope (FrA); Pachappa sandy loam, deep over hardpan, 0 to 1 percent slope (PgA).

Table 2 Wildlife Species Observed in the Project Vicinity	
Common Name	Scientific Name
Birds	
Rock pigeon	<i>Columba livia</i>
Eurasian collared-dove	<i>Streptopelia decaocto</i>
Mourning dove	<i>Zenaida macroura</i>
Killdeer	<i>Charadrius vociferus</i>
Black-necked stilt	<i>Himantopus mexicanus</i>
Greater yellowlegs	<i>Tringa melanoleuca</i>
Turkey vulture	<i>Cathartes aura</i>
Swainson's hawk	<i>Buteo swainsoni</i>
American crow	<i>Corvus brachyrhynchos</i>
Savannah sparrow	<i>Passerculus sandwichensis</i>
House sparrow	<i>Passer domesticus</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>

4.3 SENSITIVE HABITATS, SPECIAL-STATUS PLANTS, AND SPECIAL-STATUS WILDLIFE

A list of special-status plant and animal species that historically occurred in the vicinity of the project site was compiled based on the following:

- A review of previous studies in the region;
- Informal consultation with the USFWS via the Information, Planning, and Consultation system (IPaC); and
- Queries of the CDFW's California Natural Diversity Database (CNDDDB) and Biogeographic Information and Observation System (BIOS);
- Query of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants database.

To identify special-status species that have been reported from the project area, the CNDDDB was queried spatially for the USGS topographic quadrangle that the project site occurs in and the eight quads surrounding the project site (nine quadrangle search). Species recorded in the nine quadrangle search for which suitable habitat may occur onsite or in surrounding areas were included in the analyses. The species occurrence map for the area immediately surrounding the project site is included in Figure 4. The species identified from these data sources were further assessed for their potential to occur within the project site based upon previously documented occurrences, their habitat requirements, and the quality and extent of any available habitat within the site. The summary of this analysis is presented in Table 3.

The CNDDDB and CNPS lists for the nine quadrangle area, and the USFWS Species List for the Sandy Mush quadrangle, identified three natural communities, 28 special-status plants, and 31 special-status wildlife species (Table 3 and Appendix B and C). Six species identified in the CNDDDB query did not meet the definition of special-status and were not included in the analysis.

Sensitive natural communities are those that are considered rare within the region and support sensitive plant and/or wildlife species, or function as corridors for wildlife movement. The three sensitive natural communities recorded in the area (Cismontane Alkali Marsh, Northern Claypan Vernal Pool, and Valley Sink Scrub) do not occur on the project site or in the immediate vicinity of the project site. Neither special-status plants nor habitat that would support special-status plants occur on the project site due to the disturbed nature of the agricultural lands and active dairy facility.

Special-status wildlife species that may occur on the site from time to time include tricolored blackbird, American badger and Swainson's hawk. The San Joaquin kit fox is known to occur at the Merced National Wildlife Refuge, which is approximately 3.8 miles west of the site. No sign of San Joaquin kit fox was observed, but they may occur onsite as transient foragers or dispersing individuals. Although a few burrows were observed on site, it is likely that the project site could support small mammals that provide prey for San Joaquin kit fox, American badger, and Swainson's hawk. Agricultural access roads, open or fallow fields, and irrigation ditches and canals provide an important corridor for the movements of these mammals. There was no vernal pool habitat that could support listed vernal pool invertebrates observed onsite during the reconnaissance survey.

The project site may provide occasional foraging opportunities for additional sensitive wildlife species including various raptors and migratory birds that are protected by the Migratory Bird Treaty Act. The Grasslands Ecological Area, within the region and primarily located north and west of the site, provides habitat for migratory waterfowl and shorebirds. This area provides potential habitat for nesting bird species such as ducks, short-eared owls, northern harriers, and pheasants, and upland foraging and grazing wildlife species such as raptors, geese, cranes, and egrets.

The Azevedo Dairy #4 site is immediately adjacent to the southern boundary of the Grasslands Focus Area (GFA) and approximately one mile south of the southern boundary of the Grasslands Ecological Area (GEA). The GEA is comprised of the Grasslands Wildlife Management Area (WMA) with the addition of several state and federal wildlife areas that are outside of the Grasslands WMA. The project site is also approximately 3.8 miles east of the Merced National Wildlife Refuge and approximately 13.5 miles east of the Los Banos Wildlife Area and is not located within a half mile of State or Federal Wildlife Refuges within the GEA. Merced County 2030 General Plan

Policy LU-1.13 restricts development within a half mile of State or Federal wildlife refuges within the GEA if the County determines that there are unmitigated impacts to natural resources or habitat. In addition, Policy LU-10.14 (see Appendix A) requires the County to consult with the Grassland Resources Regional Working Group (GRRWG) during project review for projects located within the GFA. Consultation with the GRRWG has been initiated through the CEQA process during the Preliminary Application Review (PAR), prior to circulation of the Initial Study. The only comment letter received to date is from the California Department of Fish and Wildlife. CDFW submitted a comment letter in response to the Merced County Notice of Preparation (NOP) for the Project. The primary concerns outlined in the letter were the potential loss of habitat to state listed species and species of special concern. Padre biologists reviewed the CDFW comment letter and considered CDFW concerns when conducting field surveys and in the preparation of this report.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species
List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
SPECIAL-STATUS PLANTS			
<i>Astragalus tener tener</i> Alkali milk-vetch	1B.2	Plays, valley and foothill grassland (adobe soils) and vernal pools. Occurs at elevations from 3 to 200 ft. Blooms from March to June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	1B.2	Chenopod scrub, valley and foothill grassland, meadows, alkaline flats and scalds in the Central Valley. Sandy soils. Found regionally in alkali grassland. 3 to 500 ft. Blooms from April to October.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex minuscula</i> Lesser saltscale	1B.1	Chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy alkaline soils. 60 to 350 ft. Found locally in heavily alkaline grassland, with a white crust of soil salts. Blooms from May to October.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex persistens</i> Vernal pool smallscale	1B.2	Alkaline vernal pools. Found regionally in northern claypan vernal pool. Occurs at elevations from 30 to 380 ft. Blooms from June to October.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex subtilis</i> Subtle orache	1B.2	Valley and foothill grassland at elevations ranging from 130 to approximately 330 feet. Blooms from June to September, sometimes into October.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Brasenia schreberi</i> Watershield	2B.3	Wetland and riparian communities at elevations ranging from 2,560 to 4,035 feet. Blooms from June to Sept.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Castilleja campestris</i> var. <i>succulenta</i> Succulent owl's-clover	FT, SE, 1B.2	Vernal pools, often with acidic conditions, at elevations ranging from 165 to 2,460 feet. Blooms from March to May.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species
List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Chloropyron molle</i> ssp. <i>hispidum</i> Hispid bird's-beak	1B.1	Meadows, playas, valley and foothill grassland. In damp alkaline soils, especially meadows and sinks. Found regionally in a wetland with saltgrass. Occurs at elevations from 33 to 500 ft. Blooms from June to September.	Absent. There is no suitable habitat that would support this plant on the project site. The proposed project would not adversely impact this species.
<i>Cryptantha hooveri</i> Hoover's cryptantha	1A	Valley and foothill grassland in coarse sand at elevations ranging from 1 to 500 feet. Blooms from April to May.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Delphinium recurvatum</i> Recurved larkspur	1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland. On alkaline soils; often in valley saltbush or valley chenopod scrub. Found regionally in slightly alkaline beds of vernal pools. Occurs at elevations ranging from 10 to approximately 2,250 feet. Blooms from March to June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Downingia pusilla</i> Dwarf downingia	2B.2	Valley and foothill grasslands and vernal pools at elevations ranging from 1 to 1,460 feet. Blooms from March to May.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Eryngium racemosum</i> Delta button-celery	SE 1B.1	Riparian scrub in vernal mesic clay depressions. Occurs at elevations from 10 to 100 ft. Blooms from June to October.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Eryngium spinosepalum</i> Spiny-sealed button-celery	1B.2	Valley/foothill grassland, Vernal pool. 260 to 850 ft. Blooms from April to June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Euphorbia hooveri</i> Hoover's spurge	FT, 1B.2	Valley and foothill grassland, vernal pools on volcanic mudflow or clay substrate. Found regionally in moderately saline-alkaline soils at elevations ranging from 80 to 425 ft. Blooms	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species
List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
		from July to September, sometimes into October.	
<i>Extriplex joaquinana</i> San Joaquin spearscale	1B.2	Chenopod scrubs, meadows, seeps, playas, and vernal pool in alkaline soils. Occurs at elevations from 3 to 1,500 ft. Blooms April-Oct.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Lagophylla dichotoma</i> Forked hare-leaf	1B.1	Cismontane woodland and valley and foothill grassland at elevations ranging from 147 to approximately 1,100 feet. Blooms from April to May.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Lasthenia chrysantha</i> Alkali-sink goldfields	1B.1	Alkali sink, valley grassland, in wetland-riparian communities. Blooms Feb – June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	1B.1	Coastal marshes, swamps, playas, and vernal pools. Occurs at elevations from 3 to 4,000 ft. Blooms Feb-June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Lepidium latipes</i> var. <i>heckerdii</i> Heckerd's pepper-grass	1B.2	Valley and foothill grassland (alkaline flats). Occurs at elevations from 33 to 650 ft. in Glenn, Solano, and Yolo counties.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> Shining navarretia	1B.2	Cismontane woodlands, valley and foothill grasslands, and vernal pools at elevations ranging from 210 to approximately 3,280 feet. Blooms from March to July.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Navarretia prostrata</i> Prostrate vernal pool navarretia	1B.2	Mesic coastal scrub, meadows, seeps, valley/foothill grassland, vernal pools. 50 to 4,000 ft. Blooms from April to July.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species
List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Neostapfia colusana</i> Colusa grass	FT, SE, 1B.1	Vernal pools at elevations ranging from 15 to approximately 655 feet. Blooms from May to August.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	FE, SE, 1B.1	Vernal pools at elevations ranging from 32 to approximately 2480 feet. Blooms from April to September.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Orcuttia pilosa</i> Hairy Orcutt grass	FE, SE, 1B.1	Vernal pools at elevations ranging from 150 to approximately 660 feet. Blooms from May to September	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Puccinellia simplex</i> California alkali grass	1B.2	Alkaline and vernal mesic chenopod scrub, meadows and seeps, vernal pools, and valley and foothill grasslands up to 2,950 feet elevation. Blooms from March to May.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes and ditches. 0 to 2,000 ft. Blooms from May to October, sometimes into November.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Sidalcea keckii</i> Keck's checkerbloom	FE, 1B.1	Serpentine and clayey soils in cismontane woodlands and valley and foothill grasslands at elevations ranging from 250 to approximately 2130 feet. Blooms from April to June.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools, mudflats of vernal lakes, drying river beds, alkali meadows.	Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species.
SPECIAL-STATUS INVERTEBRATES			
<i>Bombus crotchii</i> Crotch bumble bee	SCE	Nearly endemic to California with historic range that includes southern California coast, coast range, central valley, and adjacent foothills. Requires floral resources, underground nests, and overwintering habitat in open grassland and scrub communities. Generalist forager, visits wide variety of flowering plants during flight season from Feb to October.	Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands. The proposed project would not impact this species.
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE	Endemic to the grasslands of the northern two-thirds of the central valley; found in large, turbid pools. Regionally inhabits astatic pools located in swales formed by old, braided alluvium, filled by winter/spring rains and lasting until June.	Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands. The proposed project would not impact this species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	Endemic to the grasslands of the central valley, central coast mountains and south coast mountains, in astatic rain-filled pools. Regionally inhabits small, clear-water sandstone depression pools and grassed swale, earth slump or basalt-flow depression pools.	Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands. Nearest occurrence (Occ #204) from 2014 in vernal pool habitat located approximately 3 miles north of the site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT	Occurrences of the VELB are primarily in the vicinity of moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages (U.S. Fish and Wildlife Service, 1984). Elderberry plants are obligate hosts for the VELB, providing a source of food and broodwood.	Absent. There is no suitable habitat (blue elderberry shrubs) to support this species on the project site. Nearest occurrence (Occ #121) from 1993 in riparian habitat located on the Chowchilla River approximately 17 miles east-northeast of the site. The proposed project would not impact this species.
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE	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.	Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands. Nearest occurrence (Occ #123) from 1998 in vernal pool habitat located approximately 3 miles north of the site. The proposed project would not impact this species.
SPECIAL-STATUS FISH			
<i>Hypomesus transpacificus</i> Delta smelt	FT, SE	Endemic to the upper Sacramento/San Joaquin Delta, it mainly inhabits the freshwater-saltwater mixing zone of the estuary, except during its spawning season, when it moves into freshwater during the early spring months from March until May.	Absent. There is no suitable aquatic habitat to support this species on the project site or in the surrounding area. The proposed project would not impact this species.
<i>Oncorhynchus mykiss</i> Central Valley steelhead Critical Habitat	FT	Sacramento and San Joaquin River systems, Sacramento-San Joaquin Delta, and San Francisco Bay	Absent. There is no suitable aquatic habitat to support this species on the project site or in the surrounding area. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Myopharadon conocephalus</i> Hardhead	CSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage.	Absent. There is no suitable aquatic habitat to support this species on the project site or in the surrounding area. The proposed project would not impact this species.
SPECIAL STATUS AMPHIBIANS			
<i>Ambystoma californiense</i> California tiger salamander	FT, ST	Needs underground refuges, especially ground squirrel burrows in upland habitat and vernal pools or other seasonal water sources for breeding.	Absent. There is no suitable aquatic or upland habitat to support this species on the project site due to the level of disturbance in agricultural lands. Nearest occurrence (Occ #436) from 2019 in vernal pool habitat located approximately 3 miles north of the site. The proposed project would not impact this species.
<i>Rana draytonii</i> California red-legged frog	FT, CSC	Found in marshes, lakes, reservoirs, ponds, slow parts of streams, and other usually permanent water in lowlands, foothill woodlands and grasslands. Requires areas with extensive emergent vegetation. High value habitats are deep-water ponds with dense stands of overhanging willows and a fringe of cattails.	Absent. There is no suitable aquatic or dispersal habitat to support this species on the project site and species is not known to occur in the Central Valley. The proposed project would not impact this species.
<i>Lithobates pipiens</i> Northern leopard frog	CSC	Inhabits grasslands, wet meadows, bogs, marshes, and reservoirs. Generally, prefers permanent water with abundant aquatic vegetation	Absent. There is no suitable aquatic habitat to support this species on the project site and species is not known to naturally occur in the region. Nearest occurrence (Occ #6) from 1976 is a transplant outside native range of the species located 9 miles northwest of the site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
<i>Spea hammondi</i> Western spadefoot toad	CSC	Occurs primarily in grassland habitats; can be found in valley foothill hardwood woodlands. Vernal pools essential for breeding and egg laying.	Absent. There is no suitable aquatic or upland habitat to support this species on the project site due to the level of disturbance in agricultural lands. Nearest occurrence (Occ #162) from 2015 in vernal pool habitat located approximately 3 miles north of the site. The proposed project would not impact this species.
SPECIAL STATUS REPTILES			
<i>Anniella pulchra pulchra</i> Silvery legless lizard	CSC	In San Joaquin Valley south to Baja California in moist, warm, and loose soils with vegetative cover.	Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands. Nearest occurrence (Occ #122) from 2009 is located approximately 14 miles northwest of the site. The proposed project would not impact this species.
<i>Emys marmorata</i> Western pond turtle	CSC	Ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Needs basking sites and suitable upland habitat (sandy banks or grassy open fields) for egg laying.	Absent. There is no suitable habitat to support this species on the project site. Nearest occurrence (Occ #55) is located approximately 5 miles northeast of the site. The proposed project would not impact this species.
<i>Gambelia sila</i> Blunt-nosed leopard lizard	FE SE, FP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures.	Absent. There is no habitat to support this species on the project site. Nearest occurrence (Occ #116) is a historic occurrence from 1967 that is located approximately 1 mile southwest of the site. This occurrence is believed to be extirpated and all other known occurrences are greater than 12 miles south of the site. The proposed project would not impact this species.
<i>Phrynosoma blainvillii</i> Coast horned lizard	CSC	Occurs in valley-foothill hardwood, conifer, and riparian habitats, pine-cypress, juniper, and annual grasslands in the Central Valley from Tehama County to Tulare County below 6,000 ft. Requires loose soil	Absent. There is no habitat to support this species on the project site. Nearest occurrence (Occ #608) from 1989 is located approximately 14 miles northwest of the site. The proposed project would not impact this species.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
		for burrowing. Ants are preferred forage.	
<i>Thamnophis gigas</i> Giant garter snake	FT ST	Freshwater marshes and streams. Has adapted to drainage canals and irrigation ditches.	Absent. There is no suitable aquatic habitat to support this species on the project site. Nearest occurrence (Occ #161) is from 2001 and is located approximately 6.2 miles west-southwest of the site. The proposed project would not impact this species.
SPECIAL STATUS BIRDS			
<i>Accipiter cooperii</i> Cooper's hawk	WL	Breeds in forests and streamside trees where it can hunt its prey by ambush in the dense cover. Has also been known to forage in residential areas.	Moderate - Foraging and Nesting. There are no trees on the Project site and very few trees in the surrounding area that could provide nesting habitat for Cooper's hawk. The proposed project is unlikely impact this species.
<i>Accipiter striatus</i> Sharp-shinned hawk	WL	Breeds in woodland habitat. Typically forages in areas of dense cover where it can ambush its prey.	Moderate - Foraging and Nesting. There are no trees on the Project site and very few trees in the surrounding area that could provide nesting habitat for Sharp-shinned hawk. The proposed project is unlikely impact this species.
<i>Agelaius tricolor</i> Tricolored blackbird	CSC	Nesting colony requires open water, protected nesting substrate and foraging area with insect prey within a few km of the colony.	Moderate - Foraging and Nesting. The nearest recent occurrence (Occ# 991) is from 2015 and is located approximately 3 miles north of the site. Although this species was not observed during the site survey, the croplands onsite or in surrounding areas could provide suitable nesting habitat for tricolored blackbird. Oat fields grown onsite are not a preferred nesting substrate due to lack of structure; however, other crops such as wheat or triticale are preferred nesting substrate for tricolored blackbird in agricultural areas and were observed in adjacent fields. Approximately 26

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
			acres of cropland providing potential breeding and foraging habitat will be impacted by this project.
<i>Athene cunicularia</i> Burrowing owl	CSC BCC	Dry, open short grass, treeless plains that are associated with burrowing species. Underground nesting habitat in burrows.	Low - Foraging and Nesting. The nearest recorded occurrence (Occ# 1097) is from 2007 and is located approximately 3 miles north of the project site associated with grassland habitat at the Deadman Creek Conservation Bank. Burrowing habitat onsite was limited to several small burrows located at the base of a bedding pile located west of the agricultural field proposed for development and adjacent to the existing shade barn and corrals. These burrows were not suitable for occupancy due to the level of disturbance associated with use and management of the bedding stockpiles and no sign of use was observed. The species is unlikely to occur onsite and the proposed project is unlikely to impact this species.
<i>Branta hutchinsii leucopareia</i> Cackling (=Aleutian Canada) goose	FDL, WL	Breeds in the Aleutian Islands and winters in the Central Valley of California. During the winter, it occurs in agricultural fields and pastures.	Low - Foraging. The closest recorded occurrence (Occ #11) is located approximately 15.6 miles southwest of the project site and is from 1978. Approximately 26 acres of potential foraging habitat will be impacted by this project.
<i>Buteo swainsoni</i> Swainson's hawk	ST, BCC	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	High – Foraging / Moderate - Nesting. The closest nesting occurrence (Occ #1315) is a 2008 occurrence in a eucalyptus tree located approximately 3.3 miles north-northeast of the project site. There are 29 recorded occurrences of Swainson's hawk within 10 miles of the project site. Suitable nest trees for Swainson's hawk within 0.5-mile of the site are limited to several eucalyptus trees southeast

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
			of the site; however, the cropland onsite provides suitable foraging habitat for Swainson's hawk nesting up to 10 miles from the site. Approximately 26 acres of suitable foraging habitat will be impacted by this project.
<i>Charadrius montanus</i> Mountain plover	CSC	Winters from September to mid-March in valleys and plains in the Sacramento and San Joaquin Valley.	Low. Habitat onsite is not suitable due to level of disturbance and active agricultural production. This species is a very rare visitor to the Merced National Wildlife Refuge and the vernal pools located along Sandy Mush Road. The nearest occurrence (Occ #20) from 1999 is over 14 miles southwest of the site.
<i>Circus hudsonius</i> Northern harrier	CSC	Forages and nests in freshwater and brackish marshes and their adjacent grasslands.	Moderate – Foraging / Absent - Nesting. This species is common in the area and could use the project area for foraging. Approximately 26 acres of potential foraging habitat will be impacted by this project. There is no suitable nesting habitat on or adjacent to the project site.
<i>Elanus leucurus</i> White-tailed kite	FP	Rolling foothills / valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Forages over grasslands, marshes, and oak savannas close to isolated, dense-topped trees for nesting and perching.	Moderate - Foraging and Nesting. There are no trees on the Project site and very few trees in the surrounding area that could provide nesting habitat for white-tailed kite. The proposed project is unlikely impact this species.
<i>Haliaeetus leucocephalus</i> Bald eagle	FDL, SE, FP	Associated with permanent water sources including lakes, reservoirs, and large free-flowing rivers with abundant fish and nearby old-growth trees or snags for perching, roosting, and nesting. It roosts communally in winter in dense, uneven-aged conifer stands with old-growth components in proximity to feeding areas. It is a permanent resident in	Low – Foraging and Nesting. No suitable nesting habitat occurs on or near the site. The nearest occurrence (Occ. #263) from 2001 is approximately 19 miles east of the site along the Chowchilla River.

Table 3
Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area

Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
		northern California and an uncommon winter migrant in the south of the state	
SPECIAL STATUS MAMMALS			
<i>Eumops perotis californicus</i> Western mastiff bat	CSC	The western mastiff bat is a year-round resident in at low to mid-elevations along the west side of the Sierra Nevada range. It occupies a variety of habitats from desert scrub to chaparral to montane coniferous forest. Distribution is associated with the presence of significant rock features (granite or basalt formations). Day roosts are primarily in crevices in cliff faces, cracks in boulders, and occasionally in buildings.	Absent. There is no suitable habitat to support this species on the project site. The proposed project would not impact this species.
<i>Dipodomys nitratoideis exilis</i> Fresno kangaroo rat	FE, SE	Historically found in grassland and chenopod scrub communities on the San Joaquin Valley floor from the Merced River to the north and Tulare Lake to the south.	Absent. There is no suitable habitat to support this species on the project site. The proposed project would not impact this species.
<i>Taxidea taxus</i> American badger	CSC	Most abundant in drier open stages of most shrub, forest and herbaceous habitats, with friable soils. Need sufficient food, friable soils and open, uncultivated ground.	Low. This species or its sign (burrows, tracks, scat) were not observed during field surveys, and the substrate was devoid of any suitable burrows. The nearest known occurrence (Occ # 295) is a historic occurrence approximately 1.3 miles northeast of the site and recent occurrences (Occ #541) associated with the Dutchman Creek Conservation Bank are located approximately 6.4 miles northeast of the site. This species may occur occasionally as a transient but is not expected to den onsite. The

Table 3 Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Azevedo Dairy #4 Project Area			
Scientific Name Common Name	Status ¹	Habitat Requirements	Likelihood of Occurrence
			proposed project is unlikely to impact this species.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing and suitable prey base.	Low. This species or its sign (burrows, tracks, scat) were not observed during field surveys, and the substrate was devoid of any suitable burrows. The nearest recorded occurrence (Occ #47) of the species is from 2000 and is located approximately 4 miles west of the site near the Merced National Wildlife Refuge. This species may occur occasionally as a transient but is not expected to den onsite. The proposed project is unlikely to impact this species.
¹ Status FE = Federal Endangered FT = Federal Threatened FDL = Federal Delisted FC = Federal Candidate SE = California State Endangered ST = California State Threatened SC = California State Candidate FP = CDFW Fully Protected CSC = California Species of Special Concern BCC = USFWS Bird of Conservation Concern		CRPR 1B.1 = Threatened in California and elsewhere, seriously threatened in California CRPR 1B.2 = Threatened in California and elsewhere, moderately threatened in California CRPR 2B = Plants rare, threatened, or endangered in California but more common elsewhere	

4.4 POTENTIALLY JURISDICTIONAL WATERS/WETLANDS

Reconnaissance surveys were conducted during the wet season, and several areas of inundation were observed along roads near the wastewater treatment ponds, in the northern portion of the southern agricultural field (planted in oats), and several locations adjacent to farm roads and animal bedding stockpiles. The NWI identified the agricultural ditches as riverine, unknown perennial, unconsolidated bottom, semi-permanently flooded, excavated wetland features (R5UBFx) and the wastewater ponds as palustrine, emergent, persistent, artificially flooded, excavated wetland features (PEM1Kx) (Appendix D). The field surveys determined that the majority of irrigation is currently conveyed through underground pipelines. The ground surface at the locations of underground irrigation pipelines varied from small depressional features to level with the surrounding ground surface; however, none of the ditch alignments supported standing

or flowing irrigation water and do not appear to pond stormwater long enough to develop wetland characteristics. The only agricultural ditch with surface water present at the time of field surveys occurs in a U-shaped configuration south of the existing wastewater treatment ponds and is part of the irrigation and tailwater return system use to support application of wastewater and collection of tailwater returns used for irrigation of the crop fields.

5 PROJECT IMPACT ANALYSIS

The project includes approval of a new Conditional Use Permit (CUP20-005) from Merced County to expand the existing dairy beyond its current permitted capacity so that the modified dairy would house 4,000 stock from the current 1,730 (see Table 1).

The proposed project would include construction of expanded dairy facilities, conversion of the cropland east of the existing dairy facility to support the expansion, and the merging of the existing heifer facility located east of the dairy with the existing dairy facility. With implementation of the proposed dairy expansion, new structures would consist of approximately 143,950 square feet of construction for a total of 316,125 square feet of existing and proposed structures.

With construction of the proposed facilities, approximately 26 acres of cropped acreage would be converted to active dairy facilities. The remaining 105 acres would continue to be cropped with dairy feed crops. No conversion of open lands is proposed.

5.1 STANDARDS OF SIGNIFICANCE

State CEQA Guidelines and standard professional practice determine whether the Dairy Expansion project would have a significant environmental effect. The project would have a significant impact on biological resources if it would:

- Result in a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USWFS;
- Result in a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (see Appendix A for Merced County policies);
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
- Result in impacts to biological resources that are individually limited, but cumulatively considerable (i.e., the incremental effects of the project are considerable when viewed

in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

5.2 IMPACTS TO BIOLOGICAL RESOURCES

Special-Status Species

Plants

The likelihood of occurrence of special-status plant species in the site is considered extremely low due to a lack of suitable habitat and ongoing site disturbance associated with intensive dairy and agricultural operations (see Figure 4). The Azevedo Dairy #4 Expansion project is expected to have no increased impacts or no new impacts that would affect special-status plants. **(No impact)**

Wildlife

Nesting Birds

Throughout Merced County, the conversion of cultivated farmland to dairies and other developments are resulting in a cumulative and significant loss of foraging and nesting habitat for some special-status and migratory birds. Conversion of a portion of the project site to a dairy facility would contribute to that cumulative loss. This loss of habitat is cumulatively significant, unavoidable, and unmitigable. The dairy would be constructed on land that has been previously cultivated in grain crops and has provided foraging habitat for a variety of special-status and migratory bird species.

Implementation of the project would result in the conversion of 26 acres of cropland to developed lands for the construction of the new dairy facilities. The proposed dairy expansion would be constructed on land that has been previously cultivated in grain crops and currently provides nesting and/or foraging habitat for a variety of special-status and migratory bird species.

There is the potential for migratory birds, especially ground nesters, to breed onsite. Suitable habitat for ground nesting birds such as western meadowlark, killdeer, short-eared owl, and horned lark is limited and only expected along edges of the agricultural fields. **(Potentially significant)**

Recommended Mitigation:

To reduce project related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds, the following measures shall be implemented prior to and during construction activities:

1. A preconstruction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding

season (February 15 through September 15). The project site and potential nesting areas within 100 feet of the site for MBTA protected birds and 500 feet for raptors shall be surveyed within seven days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds.

2. Construction shall not occur within a 500-foot buffer surrounding nests of raptors (including burrowing owls) or a 100-foot buffer surrounding nests of migratory birds (including killdeer, house finch, mourning dove, etc.).
3. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, prior approval must be obtained from the CDFW.

Preconstruction surveys and avoidance measures would reduce this impact to less than significant. Further, while approximately 26 acres of cropland would be converted to active dairy facilities, 105 acres would remain as cropland.

Tricolored Blackbird

Tricolored blackbird (TCBB) is a California threatened species under CESA. Based on the 2014 TCBB Statewide Survey, the TCBB population has declined by 63 percent since 2008 (Meese, 2014). However, the most recent results of the 2017 TCBB Statewide Survey suggest that the rapid decline in abundance observed since at least 2008 has been arrested and that there has been an increase in abundance since 2014 of about 32,000 birds (Meese, 2017). TCBB Statewide Survey data is not available for 2020. TCBB is a highly colonial species that nests in large flocks near open water with a protected substrate and nearby foraging area. TCBB have two specific peaks in breeding activity, one in the first week of June and one in the first two weeks of July. Total nesting duration is approximately 45 days. Historically, TCBB nested within emergent wetland in the Central Valley; however, currently 38 percent of TCBB nests occur on triticale, a wheat-rye hybrid grown for forage on dairies (Meese, 2014). The timing of triticale harvest conflicts with TCBB nesting, putting entire colonies at risk from harvesting activities that occur before fledging (Meese, 2009). TCBB foraging typically occurs within 3-5 miles of the nesting colony. Lightly grazed fields, irrigated pastures, annual grasslands, and grain fields that provide habitat for a supply of large insects such grasshoppers, dragonflies, and damselflies offer the best foraging habitat. However, dairy and silage edge as well as feed lots maybe used for foraging. Surface water is typically present within a half mile of the nesting colony, a habitat criterion that would be met by the wastewater storage ponds at this site. Although TCBB was not observed during the site survey and the crops currently in production (oats) are not used as nesting substrate by breeding tricolored blackbirds (Meese, 2009), the croplands onsite and in the surrounding area could provide suitable nesting habitat for TCBB if in production of triticale silage.

Currently, there are no specific mitigation requirements for the loss of TCBB nesting or foraging habitat. Both nesting and foraging mitigation options are currently being developed by CDFW and the Tricolored Blackbird Working Group (TBWG). If there is a permanent loss of TCBB breeding habitat, this impact may require compensatory mitigation. Loss of TCBB habitat may be compensated through a combination of: 1) creation of replacement habitat; 2) habitat preservation through Conservation Easement; 3) acquisition of credits at an approved mitigation bank; 4) in-lieu contribution to a regional habitat restoration fund; and/or 5) other compensatory measures that are deemed acceptable by the CDFW. According to Samantha Arthur of the TBWG a disturbance buffer of 100 feet has been given to nesting TCBB at dairy operations in the Central Valley (Airola, et al., 2016). Although not currently required, mitigation for foraging habitat will likely be required in the future. Mitigation for the loss of foraging habitat could have a similar approach to what is currently being required for the Swainson's hawk, where compensatory mitigation is required for the conversion of foraging habitat within a specific buffer from a nest (Airola, et al., 2016).

Construction of the proposed dairy expansion would result in the conversion of approximately 26 acres of cropland to dairy facilities. **(Potentially significant)**

Recommended Mitigation:

Due to the loss of 26 acres of potential breeding habitat, the following measures shall be implemented prior to and during construction activities:

1. A preconstruction survey shall be conducted to determine presence / absence of TCBB if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). This measure is also required for all MBTA protected nesting birds, as indicated above.
2. If a TCBB nest colony is discovered during preconstruction surveys, CDFW will be consulted prior to ground disturbing activities to determine the appropriate actions or required mitigation. Avoidance and minimization measures are likely to include the delayed harvest of silage until the TCBB young have fledged. If there is a permanent loss of TCBB breeding habitat, compensatory mitigation may be required. Loss of TCBB habitat may be compensated through a combination of: (1) creation of replacement habitat; (2) habitat preservation through Conservation Easement; (3) acquisition of credits at an approved mitigation bank; (4) in-lieu contribution to a regional habitat restoration fund; and/or (5) other compensatory measures that are deemed acceptable by the CDFW.

Swainson's Hawks

The state-threatened Swainson's hawk is known to nest and forage in the project vicinity. Although no raptor nests were observed, potential nesting habitat is present for tree-

nesting raptors, including Swainson's hawk within 0.5-mile of the site, including two Eucalyptus trees located to the south and a small cluster of trees located to the north. Due to the proximity of the suitable nesting habitat within 0.5-mile of the site, direct impacts could occur, if a Swainson's hawk nests occur within these trees. There are two Swainson's hawk occurrences within five miles of the site and 20 recent occurrences within ten miles of the project site, and Swainson's hawks generally forage within 10 miles of their nest tree, and more commonly within five miles of their nest tree (CDFW, 2019). Because cropland provides foraging habitat for small ground dwelling mammals, which are prey species for raptors, conversion of cultivated farmland to dairy facilities would contribute to the loss of foraging habitat for the Swainson's hawk. In the San Joaquin Valley, this loss of habitat is considered cumulatively significant, unavoidable and unmitigable.

According to the CDFW Staff Report regarding Mitigation for Impacts to Swainson's Hawks (CDFW, 1994), the following vegetation types are considered small mammal and insect foraging habitat for Swainson's hawks: alfalfa; fallow fields; beet, tomato, and other low-growing row or field crops; dry-land and irrigated pasture; rice land (when not flooded); and cereal grain crops (including corn after harvest). Because Swainson's hawk is a state-listed species, and approximately 26 acres of appropriate foraging habitat would be removed with project implementation, this would be a potentially significant impact, and the following compensatory mitigation would be required. **(Potentially significant)**

Recommended Mitigation:

1. *Protocol Surveys*: For work that begins between March 1 and August 30, a qualified biologist with expertise in Swainson's hawk shall conduct protocol surveys of potential nesting habitat within 0.5-mile of any earth-moving activities prior to initiation of such activities. The project applicant shall conduct a protocol-level survey in conformance with the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley," Swainson's Hawk Technical Advisory Committee (https://www.wildlife.ca.gov/conservation/survey-protocols#377281284-birds) (May 31, 2000) hereby incorporated by reference. This protocol prescribes minimum standards for survey equipment, mode of survey, angle and distance to tree, speed, visual and audible clues, distractions, notes and observations, and timing of surveys. If construction work begins after August 30 and ends before March 1 (outside of the breeding season), impacts to the Swainson's hawk would be avoided. Surveys would not be required for work conducted during this part of the year.

A written report with the pre-construction survey results must be provided to the Planning Department and CDFW within 30 days prior to commencement of construction-related activities. The report shall include: the date of the report,

authors and affiliations, contact information, introduction, methods, study location, including map, results, discussion, and literature cited.

2. **Nest Avoidance.** If the required protocol surveys show there are no active nests within 0.5-mile of construction activities, then no additional mitigation for nest disturbance will be required. If nesting Swainson's hawks are observed within 0.5-mile of the project site, the project applicant must implement CDFW pre-approved mitigation measures to avoid nest impacts during construction. These measures include:
 - a. All project-related activities with the potential to cause nest abandonment or forced fledging of young shall be avoided until the young have fledged.
 - b. If disturbances, habitat conversions, or other project-related activities, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone (0.5-mile), monitoring of the nest site by a qualified raptor biologist, funded by the project applicant, shall be required, to determine if the nest is abandoned. If the nest is abandoned, but the nestlings are still alive, the project proponent is required to fund the recovery and hacking, that is the controlled release of captive reared young, of the nestling.
 - c. The project applicant shall be required to coordinate with CDFW to determine if project activities with the potential to cause disturbance to nesting Swainson's hawks within the 0.5-mile buffer may proceed with a reduced nest buffer and an approved biological monitor. CDFW may authorize a reduced nest buffer with the presence of a monitoring biologist during construction activities to ensure that the nest is not disturbed.
 - d. Routine disturbances such as agricultural activities, commuter traffic, and routine maintenance activities within 0.5-mile of an active nest are not prohibited.
3. **Foraging Impacts:** Generally, CDFW requires mitigation for loss of foraging habitat based on the presence of active nests within 10 miles of the project. If an active nest site is identified within ten miles of the project site, the project proponent will be required by CDFW to provide off-site foraging habitat management lands at a specified Mitigation Ratio that is based on nest proximity to the project site, as follows:

Distance from Project Boundary	Mitigation Acreage Ratio*
Within 1 mile	1.00:1**
Between 1 and 5 miles	0.75:1
Between 5 and 10 miles	0.50:1

*Ratio means [acres of mitigation land] to [acres of foraging habitat impacted].

**This ratio shall be 0.5:1 if the acquired lands can be actively managed for prey production.

CDFW provides options for off-site habitat management by fee title acquisition or conservation easement acquisition with CDFW-approved management plan, and by the acquisition of comparable habitat. Mitigation credits may be pursued through a CDFW-approved mitigation bank for Swainson's hawk impacts in Merced County. Go to: www.dfg.ca.gov/habcon/conplan/mitbank/catalogue

The CDFW pre-approved CEQA mitigation measures are found at: "DFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California," CDFW (http://www.madera-county.com/rma/archives/uploads/1188143775_Document_upload_23w.pdf) (November 8, 1994).

The Merced County Planning Department may negotiate Management Conditions that differ from the foregoing CDFW pre-approved mitigation measures if such conditions are consistent with California Fish and Wildlife Commission and the state legislative policy and such conditions are approved by CDFW prior to reaching agreement with the project applicant.

San Joaquin Kit Fox (SJKF) and American Badger

No potential denning habitat is present for San Joaquin kit fox within the project site. Nevertheless, there are records from the CNDDDB of occurrences of San Joaquin kit fox within the Merced National Wildlife Refuge, approximately 3.8 miles west of the project site (Occ. #47). Signs of the American badger were not observed during field surveys, but the closest recent occurrences of the species are from approximately 6.4 miles northeast of the site (Occ. #294). These species may occur occasionally as transient foragers or dispersing individuals but are not expected to den onsite. **(Potentially significant)**

Although there is a low likelihood of occurrence of San Joaquin kit fox and American badger, because there is the potential for occurrence as transient foragers or dispersing individuals, the *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, 2011) shall be followed. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit fox and American badgers.

Recommended Mitigation:

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time operations should be minimized to the extent possible. However, if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of San Joaquin kit foxes or other animals, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured San Joaquin kit fox is discovered, USFWS and CDFW shall be contacted as noted under Measure 13 referenced below.
3. San Joaquin kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at the site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a San Joaquin kit fox is discovered inside a pipe, that section of pipe should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the project site.
5. No firearms shall be allowed on the project site.
6. If any San Joaquin kit fox or American badger, or their sign, are detected on site, dogs and cats shall be kept off the project site to prevent harassment, mortality of San Joaquin kit foxes or American badgers, and/or destruction of their dens.
7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of San Joaquin 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 USFWS. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.
8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a San Joaquin kit fox or who finds a dead, injured or entrapped San Joaquin kit fox. The representative will be identified during the employee

education program and their name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
10. Upon completion of the project, all areas subject to temporary ground disturbance, including storage and staging areas, temporary roads, pipeline corridors, etc. should be recontoured if necessary, and revegetated to promote restoration of the area to pre-project conditions.
11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for guidance.
12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist at (530) 934-9309. The USFWS should be contacted at the numbers below.
13. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.
13. New sightings of San Joaquin kit fox shall be reported to the CNDDDB. A copy of the reporting form and a topographic map clearly marked with the location of

where the kit fox was observed should also be provided to the USFWS at the address below.

14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.
15. Any project-related information required by the USFWS or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W2605, Sacramento, California, 95825-1846, (916) 414-6620 or (916) 414-6600.

Sensitive Natural Community

No riparian habitats or other sensitive natural communities have been mapped or observed on the site of the Azevedo Dairy #4 Expansion project. Because construction associated with the project is located in active cropland, and no sensitive natural communities occur on site, the project would not have a substantial adverse effect on any riparian habitats or other sensitive natural communities. **(No impact)** *(For effects to migratory and resident birds in adjacent protected areas, see below.)*

Wetlands

The NWI map for the project site indicates that potential jurisdictional Waters of the U.S. once occurred on the project site. However, these are no longer apparent at the surface. Because no wetlands were observed within the expansion area, the project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. **(No impact)**

Wildlife movement and nursery sites

There are no creeks, valleys, or other wildlife movement corridors on the site. The project is located adjacent to the GFA boundary and is 3.8 miles east of the Merced National Wildlife Area within the GEA and one mile south of the GEA boundary. The wildlife refuges and wildlife areas within the GEA provide wetland and riparian habitat for migratory waterfowl and shorebirds and potential wildlife movement corridors and nursery sites near the project site; however, not within 0.5-mile of the site.

Lighting Interference with Nocturnal Wildlife

A non-exhaustive literature review was conducted to provide background for assessing the potential impacts of nighttime lighting on nearby wildlife species, and on birds in particular (Appendix E).

Published studies of the effects of night lighting on wildlife generally conclude that there is limited scientific understanding of the ecological impacts of night lighting, but that night lighting may have an adverse effect on wildlife in certain situations. One study found that “research focusing on artificial night lighting will probably reveal it to be a powerful force structuring local wildlife communities by disrupting competition and predator-prey interactions” (Longcore and Rich, 2010). The type of night lighting (such as lighted buildings, street lamps, and vehicle lamps), the percent change in illumination, and the type of light (i.e., ultraviolet wavelengths versus infrared) can have varying effects on wildlife (Longcore and Rich, 2010). The same paper also notes that “our understanding of the full range of ecological consequences of artificial night lighting is still limited.” The authors of these reports concur on the need for continued studies.

Operations at the dairy are 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. Existing night lighting at the facility includes interior mounted fluorescent or LED lighting on all shade barns and the milking parlor. The milking parlor also has exterior building mounted lights for yard lighting around the milking parlor. There is a pole-mounted yard light between the production area and the on-site residences.

With implementation of the proposed dairy expansion, the project would include new LED lighting on the proposed shade barns. Existing County standards require that all lighting be directed away from or be properly shaded to eliminate light trespass or glare within a project or onto surrounding properties. Based on the existing lighting configuration and proposal of new lighting in expansion areas, there may be light trespass beyond the area of active dairy facilities into cropped areas where night-active wildlife may forage, nest, and rest. To ensure that existing lighting and proposed lighting at the dairy facility meets County standards to reduce the potential for impact to migratory birds and night-active wildlife, the following mitigation measure would be required. **(Significant)**

Recommended Mitigation:

Project-related lighting shall be minimized and directed away or shielded to maintain lighting within developed areas of the dairy and away from sensitive areas. No light trespass shall occur onto adjacent fields or off site. Minimizing and/or directing/shielding lighting away from sensitive areas will ensure that disruption of night-active species will not occur. This will help reduce or minimize any accelerated night-time predation rates on

the dairy and adjacent agricultural fields. Around residences and other areas where it may be appropriate, landscaping shall be used to shield the agricultural fields from additional lighting.

Conflict with policies or ordinances

Approval of the Azevedo Dairy #4 Expansion project would not conflict with any Merced County policies or ordinances pertaining to biological resources (see Appendix A). **(No impact)**

Conflict with a Conservation Plan

The Azevedo Dairy #4 Expansion project is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(No impact)**

Cumulative Biological Impacts

The Azevedo Dairy #4 Expansion project, which involves the conversion of 26 acres cropland to active dairy facilities, would contribute to the cumulative loss of foraging habitat for songbirds and raptors in the Merced County area. In the San Joaquin Valley, this loss of habitat is considered cumulatively significant, unavoidable and unmitigable. **(Cumulatively significant, unavoidable and unmitigable loss of foraging habitat).**

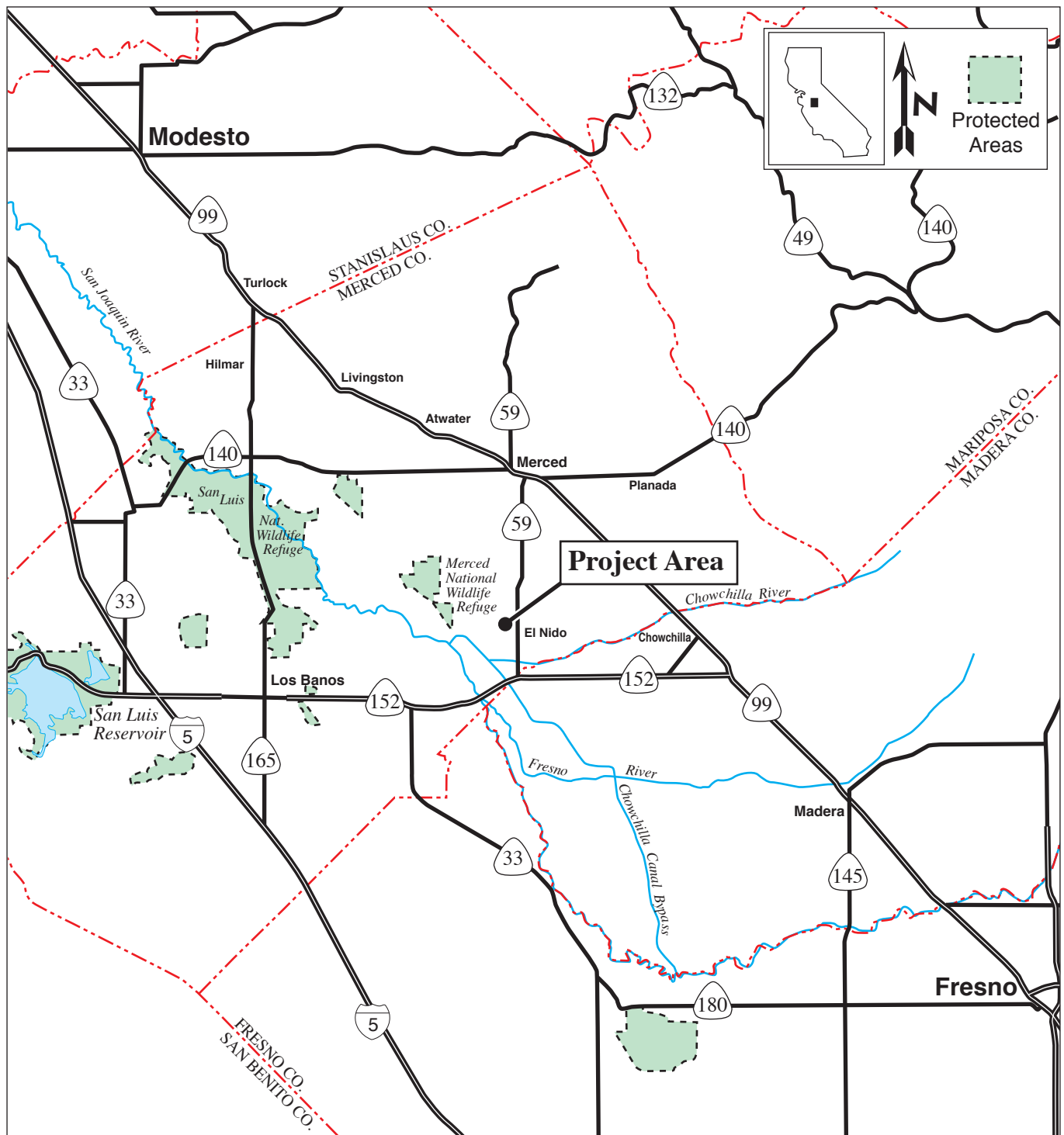
6 REFERENCES

- Airola, Dan., Ted Beedy, and Samantha Arthur. 2016. Tricolored Blackbird Biology, Conservation, and Survey Techniques Workshop. Wildlife Society-Sacramento-Shasta Chapter. May 4, 2016. Folsom, CA
- Baldwin, Bruce G., Goldman, Douglas H., Keil, David J., Rosatti, Thomas J. 2012. *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press. Berkeley, CA.
- Bird, B.; Branch, L.; Miller, D. 2004. Effects of Coastal Lighting on Foraging Behavior of Beach Mice. *Conservation Biology* 18(5): 1435-1439. October 2004.
- California Department of Fish and Game. 1994. State Fish and Game Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California.
- 2000. *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California Central Valley*. Swainson's Hawk Technical Advisory Committee, May 31, 2000.
- 2006. *Swainson's Hawk*. California Wildlife Habitat Relationships System. Sacramento, CA.
- California Department of Fish and Wildlife. 2021. California Natural Diversity Database (CNDDB) RAREFIND Query. California Department of Fish and Game. Sacramento, CA. Data accessed March 2021.
- California Native Plant Society. 2021. *Inventory of Rare and Endangered Vascular Plants of California*. California Native Plant Society, Sacramento, CA. Accessed in March and April 2021 at <<http://www.rareplants.cnps.org/>>
- Clark, D., ed. 1985. *Sunset New Western Garden Book*. Lane Publishing Co. Menlo Park, CA.
- EcoBridges Environmental Consulting, 2005. Effects of Light at Night on Waterfowl and Shorebirds: A Literature Review for the Berkeley Playing Fields Project. Prepared by Anne Wallace. March 2005.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Nongame Heritage Program. Sacramento, CA.
- International Dark-Sky Association, undated. Effects of Artificial Light at Night on Wildlife.
- Longcore, T. Rich, C. 2010 Ecological light pollution. In: *Frontiers in Ecology and the Environment* (4): 191-198.
- Meese, RJ. 2009. Contribution of the Conservation of Silage Colonies of Tricolored Blackbird Conservation from 2005-2009. Report Submitted to the U.S. Fish and

- Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, CA. Report available at the Tricolored Blackbird Portal at <http://tricolor.ice.ucdavis.edu/reports>
- 2014. Results of the 2014 Tricolored Blackbird Statewide Survey. Report available at the Tricolored Blackbird Portal at <http://tricolor.ice.ucdavis.edu/reports>.
- 2017. Results of the 2014 Tricolored Blackbird Statewide Survey. Report available at the Tricolored Blackbird Portal at <http://tricolor.ice.ucdavis.edu/reports>.
- Merced, County of. 2013. 2030 Merced County General Plan. Prepared by Mintier Harnish. December 2013.
- 2014. Results of the 2014 Tricolored Blackbird Statewide Survey. Report available at the Tricolored Blackbird Portal at <http://tricolor.ice.ucdavis.edu/reports>.
- 2017. Results of the 2014 Tricolored Blackbird Statewide Survey. Report available at the Tricolored Blackbird Portal at <http://tricolor.ice.ucdavis.edu/reports>.
- Miles, S. and C. Goudey. 1997. *Ecological Subregions of California: Section and Subsection Descriptions*. USDA Forest Service, Pacific Southwest Region Publication R5-EM-TP-005. San Francisco, CA.
- Natural Resources Conservation Service. 2019. Web Soil Survey. U.S. Department of Agriculture. <http://websoilsurvey.nrcs.usda.gov/app/>
- Perkin, E.; Holker, F.; Richardson, J.; Sadler, J.; Wolter, C.; Tockner, K. 2011. The influence of artificial light on stream and riparian ecosystems: questions, challenges, and perspectives. *Ecosphere* 2(11):122. November 2011.
- Sawyer, John O., Keeler-Wolf, Todd, Evens, Julie. 2009. *A Manual of California Vegetation Second Edition*. California Native Plant Society. Berkeley, CA.
- Shuford, W. D., and Gardali, T., eds. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. *Studies of Western Birds* 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys for the California Central Valley.
- Tricolored Blackbird Working Group. 2007. Conservation Plan for the Tricolored Blackbird (*Aegialius tricolor*). Susan Kester (ed.). Sustainable Conservation. San Francisco, CA.
- U.S. Fish and Wildlife Service. 1999. San Joaquin Kit Fox Survey Protocol for the Northern Range. Sacramento Fish and Wildlife Office, Sacramento, CA. June 1999.

- _____. 2011. Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. Sacramento Fish and Wildlife Office, Sacramento, CA. January 2011.
- 2021. Species list for the Azevedo Dairy #4 Expansion Project through IPaC Trust Resource Report on March 12, 2021 for use in preparation of Biological Reconnaissance Report. Consultation Code: 08ESMF00-2021-SLI-1273.
- 2021. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands>
- Western Regional Climate Center. 2021. Historical Climate Information. Desert Research Institute.
- Zeiner, D., W. Laudenslayer, Jr. and K. Mayer. 1988. *California's Wildlife, Volume I, Amphibians and Reptiles*. California Department of Fish and Game. Sacramento, CA.
- Zeiner, D., W. Laudenslayer, Jr., K. Mayer, and M. White. 1990a. *California's Wildlife, Volume II, Birds*. California Department of Fish and Game. Sacramento, CA.
- . 1990b. *California's Wildlife, Volume III, Mammals*. California Department of Fish and Game. Sacramento, CA.

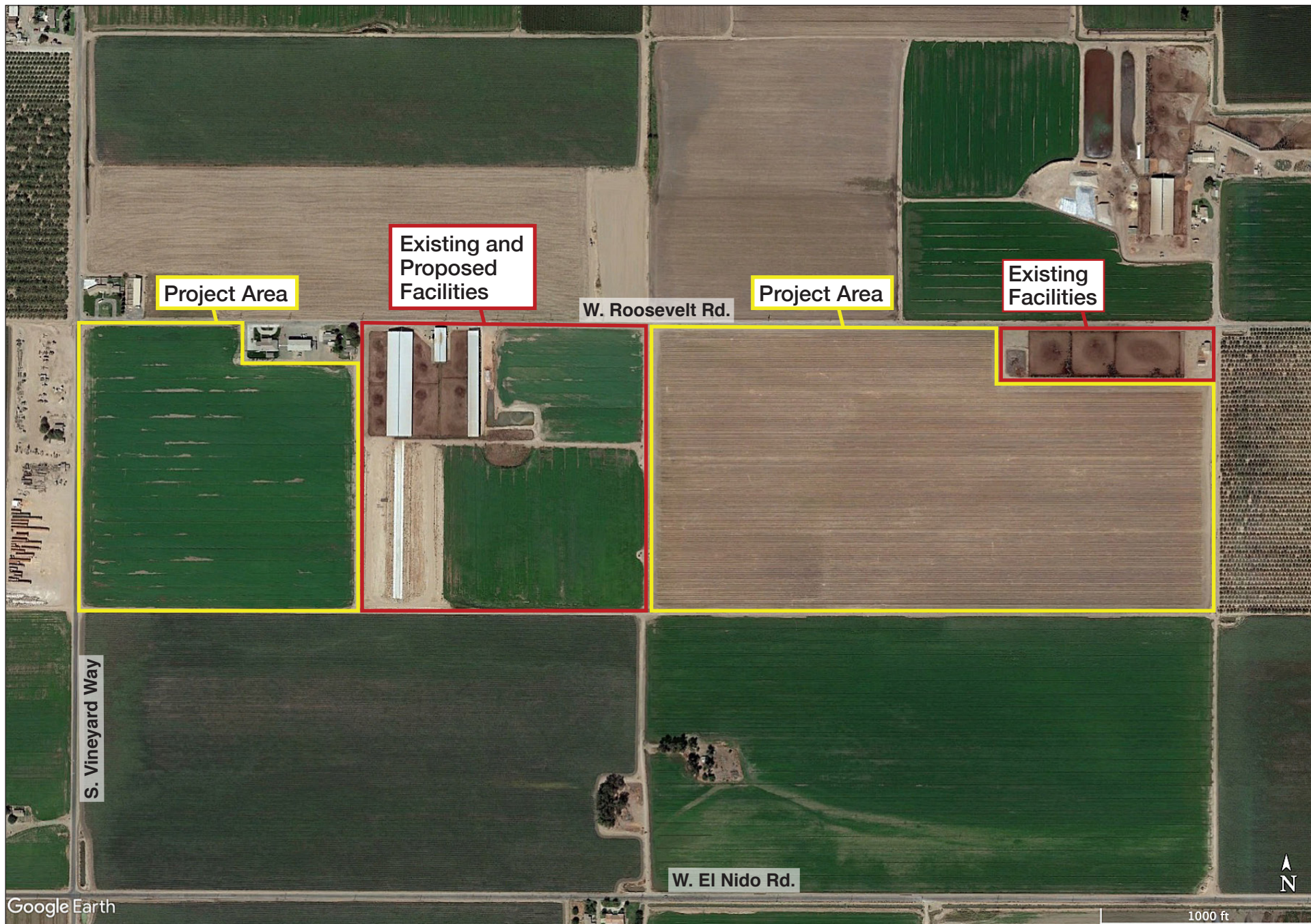
FIGURES



Antonio Azevedo Dairy #4 Expansion Project CUP20-005

SOURCE: Planning Partners 2020

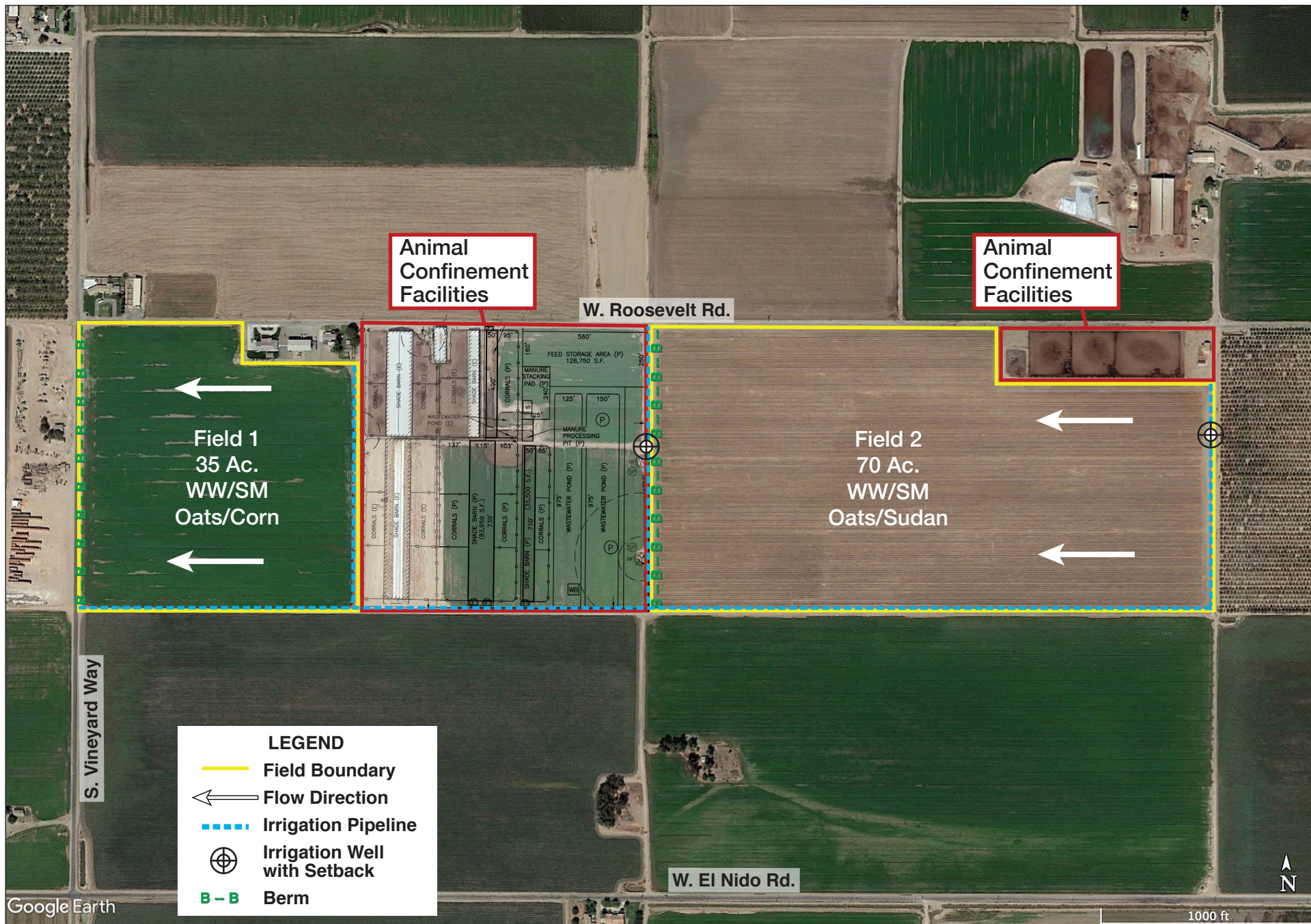
Figure 1
Regional Location



SOURCE: Planning Partners 2020

Antonio Azevedo Dairy #4 Expansion Project CUP20-005

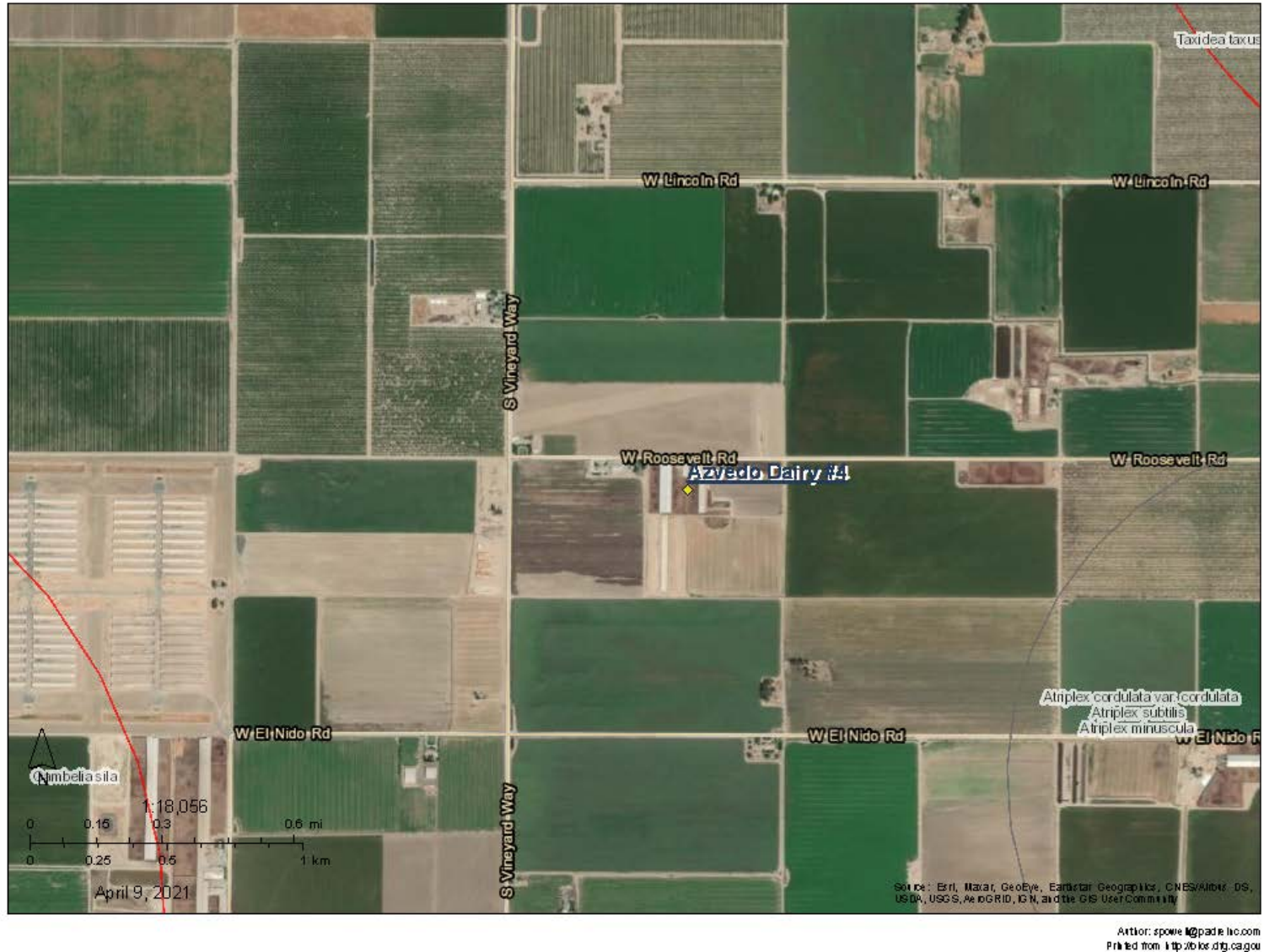
Figure 2
Project Location



SOURCE: Cardoso Ag Services 2020; Sousa Engineering 2020; Planning Partners 2020

Figure 3
Proposed Project and Dairy Land Application Areas

Azvedo Dairy #4 Expansion



Photograph A.
Western view of
cropland (field #3)
proposed for
construction of
new dairy facilities.
Existing dairy in
background of
photo (photograph
taken 3/22/2021).



Photograph B.
Northwestern view
of ponding at
perimeter of
agricultural field
(photograph taken
3/21/2021).



Photograph C.
Western view of
existing
wastewater
treatment pond
(photograph taken
3/22/2021).



Photograph D.
Southern view of
U-shaped surface
irrigation ditch
located south of
existing
wastewater
treatment ponds
(photograph taken
3/22/2021).



Photograph E.
View of
underground
irrigation
infrastructure at
edge of
agricultural fields
(photograph taken
3/22/2021).



Photograph F.
View of small
mammal burrows
at base of animal
bedding
stockpiles.
Burrows showed
signs of
deterioration and
were in location
associated with
high levels of
disturbance
(photograph taken
3/22/2021).



APPENDIX A

BIOLOGICAL RESOURCE POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN

BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013	
POLICY	DESCRIPTION
Land Use Element	
LU-1.13	Wetland Habitat Area Separation (RDR) Do not allow rural commercial and industrial uses, secondary residences, and ancillary agricultural uses within a half mile of either State or Federal wildlife refuges, or managed wetlands within the Grasslands Ecological Area when it is determined by the County that there could be an unmitigated impact to natural resources or habitat.
LU-2.4:	Secondary Uses in Agricultural Areas (RDR) Except as otherwise provided by law, limit ancillary uses in Agricultural and Foothill Pasture areas to include secondary single-family residences, farm worker housing, agricultural tourism related uses, and agricultural support services, provided that such uses do not interfere with historic agricultural practices, result in adverse health risks, or conflict with sensitive habitats or other biological resources.
LU-2.7	Rural Energy Production (RDR/SO) Allow the development of ethanol production, co-generation, solar, and wind facilities in Agricultural and Foothill Pasture areas that produce renewable energy, support agricultural-related industries, and/or use agricultural waste, provided that such uses do not interfere with agricultural practices or conflict with sensitive habitats or other biological resources.
LU-3.4:	New Rural Residential Center Prohibition (RDR) Prohibit the creation of any new, or the expansion of any existing, Rural Residential Centers in the unincorporated county.
LU-4.7:	Wildlife Refuge Separation (RDR) Do not allow rural commercial and industrial uses, secondary residences, and ancillary agricultural uses within a half mile of either State or Federal wildlife refuges, or managed wetlands within the Grasslands Ecological Area when it is determined by the County that there could be an unmitigated impact to natural resources or habitat.
LU-10.14:	Consultation with Grassland Resources Regional Working Group (IGC) Consult with the Grasslands Resources Regional Working Group during project review and conservation planning efforts for projects within the boundaries of the Grasslands Focus Area.
LU-10.12:	Consultation with State and Federal Agencies (IGC) Continue to consult with applicable State and Federal regulatory agencies during project review and permitting activities.
Natural Resources Element	
NR-1.1:	Habitat Protection (RDR/PSR) Identify areas that have significant long-term habitat and wetland values including riparian corridors, wetlands, grasslands, rivers and waterways, oak woodlands, vernal pools, and wildlife movement and migration corridors, and provide information to landowners.
NR-1.2	Protected Natural Lands (RDR/PSR) Identify and support methods to increase the acreage of protected natural lands and special habitats, including but not limited to, wetlands, grasslands, vernal pools, and wildlife movement and migration corridors, potentially through the use of conservation easements.
NR-1.3	Forest Protection (SO) Preserve forests, particularly oak woodlands, to protect them from degradation, encroachment, or loss.
NR-1.4	Important Vegetative Resource Protection (SO) Minimize the removal of vegetative resources which stabilize slopes, reduce surface water runoff, erosion, and sedimentation.

BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013	
POLICY	DESCRIPTION
NR-1.5	Policy NR-1.5: Wetland and Riparian Habitat Buffer (PSR/RDR) Identify wetlands and riparian habitat areas and designate a buffer zone around each area sufficient to protect them from degradation, encroachment, or loss.
NR-1.6	Policy NR-1.6: Terrestrial Wildlife Mobility (SO) Encourage property owners within or adjacent to designated habitat connectivity corridors that have been mapped or otherwise identified by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service to manage their lands in accordance with such mapping programs. In the planning and development of public works projects that could physically interfere with wildlife mobility, the County shall consult with the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service to determine the potential for such effects and implement any feasible mitigation measures.
NR-1.7	Policy NR-1.7: Agricultural Practices (SO) Encourage agricultural, commercial, and industrial uses and other related activities to consult with environmental groups in order to minimize adverse effects to important or sensitive biological resources.
NR-1.8	Policy NR-1.8: Use of Native Plant Species for Landscaping (SO) Encourage the use of native plant species in landscaping, and, where the County has discretion, require the use of native plant species for landscaping.
NR-1.9	Policy NR-1.9: Rural to Urban Redesignations (MPSP) Carefully consider the potential impacts on significant habitats from new development when redesignating land from a rural to an urban use.
NR-1.10	Policy NR-1.10: Aquatic and Waterfowl Habitat Protection (MPSP) Cooperate with local, State, and Federal water agencies in their efforts to protect significant aquatic and waterfowl habitats against excessive water withdrawals or other activities that would endanger or interrupt normal migratory patterns or aquatic habitats.
NR-1.11	Policy NR-1.11: On-Going Habitat Protection and Monitoring (PSR) Cooperate with local, State, and Federal agencies to ensure that adequate on-going protection and monitoring occurs adjacent to rare and endangered species habitats or within identified significant wetlands.
NR-1.12	Policy NR-1.12: Wetland Avoidance (RDR/PSR/MPSP) Avoid or minimize loss of existing wetland resources by careful placement and construction of any necessary new public utilities and facilities, including roads, railroads, high speed rail, sewage disposal ponds, gas lines, electrical lines, and water/wastewater systems.
NR-1.13	Policy NR-1.13: Wetland Setbacks (RDR) Require an appropriate setback, to be determined during the development review process, for developed and agricultural uses from the delineated edges of wetlands.
NR-1.14	Policy NR-1.14: Temporary Residential Uses (RDR) Ensure that buildings and structures approved for temporary residential use in significant wetland areas are not converted to permanent residential uses.
NR-1.15	Policy NR-1.15: Urban Forest Protection and Expansion (SO/MPSP) Protect existing trees and encourage the planting of new trees in existing communities. Adopt an Oak Woodland Ordinance that requires trees larger than a specified diameter that are removed to accommodate development be replaced at a set ratio.
NR-1.16	Policy NR-1.16: Hazardous Waste Residual Repository Location (RDR) Require new hazardous waste residual repositories (e.g., contaminated soil facilities) to be located at least a mile from significant wetlands, designated sensitive species habitat, and State and Federal wildlife refuges and management areas.

BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013	
POLICY	DESCRIPTION
NR-1.17	Policy NR-1.17: Agency Coordination (MPSP/IGC/JP) Consult with private, local, State, and Federal agencies to assist in the protection of biological resources and prevention of degradation, encroachment, or loss of resources managed by these agencies.
NR-1.18	Policy NR-1.18: San Joaquin River Restoration Program Support (MPSP/SO) Monitor the San Joaquin River Restoration Program efforts to ensure protection of landowners, local water agencies, and other third parties.
NR-1.19	Policy NR-1.19: Merced River Restoration Program Support (MPSP/SO) Support the restoration efforts for the Merced River consistent with the Merced River Corridor Restoration Plan.
NR-1.20	Policy NR-1.20: Conservation Easements (SO/IGC/JP) Encourage property owners to work with land trusts and State and Federal agencies to pursue voluntary conservation easements.
NR-1.21	Policy NR-1.21: Special Status Species Surveys and Mitigation (RDR/SO/IGC) Incorporate the survey standards and mitigation requirements of state and federal resource management agencies for use in the County's review processes for both private and public projects.
Program NR-C	GIS Mapping (PSR, PI) Update the existing Geographical Information System to include current protected or designated habitat spatial information, including wildlife refuges, Grasslands Focus Area (GFA) and Grasslands Ecological Area (GEA) boundaries, mitigation banks, Williamson Act parcels, Habitat Connectivity Corridors, priority riparian corridors, and habitat preserves. Implements Which Policies: NR-1.1, NR-1.2, NR-1.5
Program NR-D	Sensitive Habitat Guidelines (MPSP) Prepare and adopt guidelines and thresholds of significance pursuant to State CEQA Guidelines Section 15064.7 for evaluating project impacts to identified sensitive habitat, including a significance criterion for potential effects on habitat values within Grasslands Focus Area (GFA) boundaries. The guidelines shall be made available for public comment prior to final adoption. For discretionary projects within the boundaries of the GFA, the guidelines shall require the preparation of an appropriate project-level CEQA document with a review and evaluation of biological resources impacts at a level of detail commensurate with the proposed project's effects to such resources in addition to implementation of the Open Space Development Review System. For non-discretionary or ministerial projects within the GFA boundaries, the Guidelines shall require the County to implement the Open Space Development Review System, including referral to GRRWG (Grasslands Resources Regional Working Group) as appropriate. The guidelines shall recommend measures such as buffers, clustered development, project design alterations, and transferable development rights, sufficient to protect sensitive habitats from encroachment. Implements Which Policies: NR-1.1, NR-1.2, NR-1.3, NR-1.4, NR-1.5, NR-1.7, NR-1.10, NR-1.12, NR-1.13, NR-1.14, NR-1.17, NR-1.21
Program NR-E	Biological Resources Review Requirements (RDR/MPSP/IGC) County biological resources review requirements should identify state and federal biological significance thresholds and species-specific survey guidelines, and should include types of survey reports, surveyor qualifications, countywide habitat classifications, foraging crop habitat values, approved mitigation banks, and procedures to facilitate pre-consultation with state and federal agencies. State and federal mitigation standards should be considered as minimum County standards. Submit results of biological resources assessments, surveys and proposed mitigation measures to the appropriate state and federal agency as early in the review process as practicable, to expedite and ensure regulatory consistency among local, regional, state, and federal agencies with jurisdiction over such resources. Implements Which Policies: NR-1.1, NR-1.2, NR-1.3, NR-1.4, NR-1.5, NR-1.7, NR-1.10, NR-1.12, NR-1.13, NR-1.14, NR-1.17, NR-1.21.

BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013	
POLICY	DESCRIPTION
Program NR-F	<p>Ongoing Inventory of Open Space Resources (MPSP/PSR/SO)</p> <p>The County shall maintain an open space and conservation inventory to delineate those areas that have significant open space or conservation value. Those areas include agricultural lands, native pasture lands, parks and recreation areas, historic resources, scenic highways, wetland, wildlife and vegetation habitat resources, mineral and energy resource areas, fire hazard areas, geologic and flood hazard areas, noise impacted areas and other resource and hazard areas. Implements Which Policies: AG-2.1, AG-2.8, AG-2.9, AG-4.5, NR-1.1, NR-1.2, NR-1.7, NR-1.11, NR-3.4, NR-4.1, NR-4.2, HS-1.1, HS-1.3, HS-1.6, HS-1.7, HS-2.6, HS-2.7, HS-2.9, HS-2.10, HS-2.13, HS-3.8, HS-7.1, HS-7.3.</p>
Program NR-G	<p>Open Space Development Review System (RDR/IGC)</p> <p>The Open Space Development Review System (OSDRS) is one of the primary implementing tools of the County's Open Space Action Plan. Through such a review system, daily planning and permit approval decisions should reflect and implement the adopted policies and development standards of the 2030 General Plan.</p> <p>Other federal, state and local agencies also have responsibility for the protection, maintenance and development of Open Space resources. The referral of projects and consultation with appropriate responsible and trustee agencies is part of the program.</p> <p>The system is intended for utilization both by developers in the design and building of projects, and by planners and decision makers in review of projects for conformance with County policy. The system is basically a process for assessing the appropriateness of proposed developments, including their compatibility with surrounding environmental constraints and resources. The general review system will be organized in a five step process. This process will be implemented in conformance with the Sensitive Habitat Guidelines developed under Implementation Program NR-D of this Element.</p> <p>This system of review will be required of all projects for which a building permit or other entitlement is necessary such as a land division or use permit, as well as during policy and ordinance amendment. The Community and Economic Development Department has developed a five-step process consisting of:</p> <ol style="list-style-type: none"> 1. Basic Land Use Category, Zone Code Consistency, and Community Service Availability Determination 2. Open Space Inventory Map and Data Base Review 3. Demonstration by the permit applicant of consultation with the California Department of Fish and Wildlife, the Central Valley Regional Water Quality Control Board, the State Water Resources Control Board, the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and/or the Army Corps of Engineers, and any water purveyor serving the project area, as appropriate, to evaluate resources that could be affected by the proposed action; and proof of issuance of permits by these agencies, as required 4. Environmental Determination 5. Land Use and Sensitive Resource Compatibility Determination. <p>Implements Which Policies: NR-1.1, NR-1.2, NR-1.3, NR-1.4, NR-1.5, NR-1.7, NR-1.10, NR-1.12, NR-1.13, NR-1.14, NR-1.17, NR-1.21.</p>
Program NR-I	<p>Agricultural Education Program (SO/IGC/PI)</p> <p>In a coordinated effort between the Department of Community and Economic Development and the County Agricultural Commissioner, the County shall produce a brochure or publication outlining the responsibilities of landowners in managing and preserving sensitive environmental resources on their properties. The brochure shall set forth state and federal regulatory requirements and permitting procedures, state and federal agency contact information, and statutory penalties for noncompliance, including the loss of commodity support and other assistance offered through the USDA. The brochures will be made available at the offices of the County departments cited above, the County Building Division counter, posted on the County's website, and provided to the various Resource Conservation Districts throughout the county for additional distribution.</p> <p>Implements Which Policies: AG-1.10, AG-4.6, NR-1.1, NR-1.2, NR-1.3, NR-1.4, NR-1.5, NR-1.7, NR-1.10, NR-1.12, NR-1.13, NR-1.14, NR-1.17, NR-1.21.</p>

APPENDIX B

USFWS SPECIES LIST



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

March 12, 2021

Consultation Code: 08ESMF00-2021-SLI-1273

Event Code: 08ESMF00-2021-E-03675

Project Name: Azevedo Dairy #4 Expansion Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2021-SLI-1273

Event Code: 08ESMF00-2021-E-03675

Project Name: Azevedo Dairy #4 Expansion Project

Project Type: AGRICULTURE

Project Description: The Azevedo Dairy #4 is located on 16± acres of an existing farm totaling approximately 78.2 acres in unincorporated Merced County. The dairy project site is located on the southeast corner of West Roosevelt Road and Vineyard Way in the El Nido area of the County. The project cropland application area consists of 61± acres located on a portion of the dairy parcel. The Azevedo Heifer Ranch, a separate heifer facility also owned by the applicant, is located along West Roosevelt Road, and is currently used to house heifers from several dairies in the vicinity. The heifer parcel includes approximately 70 acres of cropland for manure application from the heifer facility.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.1385784,-120.5147089535048,14z>



Counties: Merced County, California

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Colusa Grass <i>Neostapfia colusana</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5690	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX C

CNDDB QUERY RESULTS



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS OR Arena (3712036) OR Atwater (3712035) OR Merced (3712034) OR Turner Ranch (3712026) OR Sandy Mush (3712025) OR El Nido (3712024) OR Delta Ranch (3712016) OR Santa Rita Bridge (3712015) OR Bliss Ranch (3712014)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G1G2 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	95 255	955 S:28	1	1	0	0	4	22	15	13	24	4	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	105 250	1336 S:10	1	3	0	1	0	5	8	2	10	0	0
<i>Anniella pulchra</i> Northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	98 98	375 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Astragalus tener var. tener</i> alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	90 90	65 S:3	0	1	0	0	0	2	2	1	3	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	130 225	2011 S:7	3	1	2	0	0	1	1	6	7	0	0
<i>Atriplex cordulata var. cordulata</i> heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	95 150	66 S:7	0	2	0	0	1	4	7	0	6	0	1
<i>Atriplex minuscula</i> lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1	95 200	52 S:4	0	1	0	0	1	2	3	1	3	0	1
<i>Atriplex persistens</i> vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	95 145	41 S:8	2	2	0	0	1	3	4	4	7	1	0
<i>Atriplex subtilis</i> subtle orache	G1 S1	None None	Rare Plant Rank - 1B.2		24 S:2	0	0	0	0	1	1	2	0	1	0	1
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None Candidate Endangered		100 100	437 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	85 270	47 S:5	2	0	0	0	0	3	2	3	5	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	85 220	791 S:14	1	6	1	0	0	6	8	6	14	0	0
<i>Branchinecta mesoatlantica</i> midvalley fairy shrimp	G2 S2S3	None None		95 280	144 S:13	3	0	0	0	0	10	9	4	13	0	0
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	G5T3 S3	Delisted None	CDFW_WL-Watch List	100 100	19 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Brasenia schreberi</i> watershield	G5 S3	None None	Rare Plant Rank - 2B.3	170 170	43 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Buteo regalis</i> ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	175 175	107 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	90 219	2535 S:34	8	4	2	2	1	17	14	20	33	1	0
<i>Castilleja campestris var. succulenta</i> succulent owl's-clover	G4?T2T3 S2S3	Threatened Endangered	Rare Plant Rank - 1B.2	185 300	99 S:8	0	4	0	0	0	4	2	6	8	0	0
<i>Charadrius montanus</i> mountain plover	G3 S2S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	275 275	90 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Chloropyron molle ssp. hispidum</i> hispid salty bird's-beak	G2T1 S1	None None	Rare Plant Rank - 1B.1	95 100	35 S:4	1	1	0	0	0	2	4	0	4	0	0
<i>Circus hudsonius</i> northern harrier	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-3 -3	53 S:1	0	1	0	0	0	0	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Cismontane Alkali Marsh Cismontane Alkali Marsh	G1 S1.1	None None		103 103	4 S:1	0	0	0	0	0	1	1	0	1	0	0
Cryptantha hooveri Hoover's cryptantha	GH SH	None None	Rare Plant Rank - 1A	175 175	4 S:1	0	0	0	0	1	0	1	0	0	1	0
Delphinium recurvatum recurved larkspur	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	120 135	119 S:3	0	0	0	0	2	1	3	0	1	0	2
Downingia pusilla dwarf downingia	GU S2	None None	Rare Plant Rank - 2B.2	273 273	132 S:1	0	1	0	0	0	0	1	0	1	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	100 175	1398 S:4	0	2	1	0	0	1	1	3	4	0	0
Eryngium racemosum Delta button-celery	G1 S1	None Endangered	Rare Plant Rank - 1B.1	85 100	26 S:4	1	1	0	0	0	2	2	2	4	0	0
Eryngium spinosepalum spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	200 245	108 S:4	0	0	0	0	0	4	0	4	4	0	0
Eumops perotis californicus western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	180 180	296 S:1	0	0	0	0	0	1	1	0	1	0	0
Euphorbia hooveri Hoover's spurge	G1 S1	Threatened None	Rare Plant Rank - 1B.2	95 95	29 S:1	0	1	0	0	0	0	1	0	1	0	0
Extriplex joaquinana San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	100 100	127 S:1	0	0	0	0	0	1	0	1	1	0	0
Gambelia sila blunt-nosed leopard lizard	G1 S1	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	120 120	416 S:1	0	0	0	0	1	0	1	0	0	1	0
Gonidea angulata western ridged mussel	G3 S1S2	None None		115 115	157 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	270 270	329 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lagophylla dichotoma</i> forked hare-leaf	G2 S2	None None	Rare Plant Rank - 1B.1		7 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lasthenia chrysantha</i> alkali-sink goldfields	G2 S2	None None	Rare Plant Rank - 1B.1	85 150	55 S:5	0	0	0	0	0	5	2	3	5	0	0
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	85 85	111 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	G4T1 S1	None None	Rare Plant Rank - 1B.2	85 85	14 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	85 180	324 S:9	3	3	1	1	0	1	5	4	9	0	0
<i>Linderiella occidentalis</i> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	85 260	508 S:13	4	2	1	0	0	6	9	4	13	0	0
<i>Lithobates pipiens</i> northern leopard frog	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	100 100	19 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Mylopharodon conocephalus</i> hardhead	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	90 90	33 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Navarretia nigelliformis ssp. radians</i> shining navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	200 310	102 S:9	2	3	1	0	0	3	1	8	9	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Navarretia prostrata prostrate vernal pool navarretia	G2 S2	None None	Rare Plant Rank - 1B.2	90 90	61 S:1	1	0	0	0	0	0	0	1	1	0	0
Neostaphia colusana Colusa grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	90 270	66 S:8	1	0	4	0	3	0	3	5	5	3	0
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	G1 S1.1	None None		90 135	21 S:4	0	0	1	0	0	3	4	0	4	0	0
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:1	0	0	0	1	0	0	0	1	1	0	0
Orcuttia inaequalis San Joaquin Valley Orcutt grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	200 265	47 S:3	0	1	2	0	0	0	0	3	3	0	0
Orcuttia pilosa hairy Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	175 175	35 S:1	0	0	0	0	1	0	1	0	0	0	1
Phacelia ciliata var. opaca Merced phacelia	G5TH SH	None None	Rare Plant Rank - 3.2	200 200	7 S:2	0	0	0	0	1	1	2	0	1	1	0
Phrynosoma blainvillii coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	95 95	784 S:1	0	0	0	0	0	1	1	0	1	0	0
Puccinellia simplex California alkali grass	G3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	100 100	80 S:1	0	0	0	0	1	0	1	0	0	0	1
Sagittaria sanfordii Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	90 175	126 S:4	0	1	0	0	0	3	3	1	4	0	0
Sidalcea keckii Keck's checkerbloom	G2 S2	Endangered None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	233 233	50 S:1	0	0	0	1	0	0	0	1	1	0	0
Spea hammondi western spadefoot	G2G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	85 183	1409 S:9	4	1	0	0	0	4	3	6	9	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	145 184	594 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Thamnophis gigas</i> giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	100 170	366 S:4	0	1	0	0	1	2	3	1	3	1	0
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	G4T3 S1	None None	Rare Plant Rank - 2B.1	100 100	12 S:2	1	0	0	1	0	0	0	2	2	0	0
<i>Valley Sink Scrub</i> Valley Sink Scrub	G1 S1.1	None None		100 100	29 S:2	0	0	0	2	0	0	2	0	2	0	0
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2 S2	Endangered Threatened		90 225	1020 S:7	1	1	2	1	0	2	6	1	7	0	0

APPENDIX D

NATIONAL WETLAND INVENTORY



U.S. Fish and Wildlife Service

National Wetlands Inventory

Azevedo Dairy #4 Expansion Project



March 12, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX E

SUMMARY OF LITERATURE REVIEWED ON THE EFFECTS OF NIGHT LIGHTING ON WILDLIFE

Literature	Content Summary
Bird, B.; Branch, L.; Miller, D. 2004. Effects of Coastal Lighting on Foraging Behavior of Beach Mice. <i>Conservation Biology</i> 18(5): 1435-1439. October 2004.	This study investigated the effects of two kinds of artificial lights on the foraging behavior of Santa Rosa beach mice (<i>Peromyscus polionotus leucocephalus</i>). The results show that artificial light affects the behavior of terrestrial species in coastal areas and that light pollution deserves greater consideration in conservation planning.
Longcore, T. Rich, C. 2010 Ecological light pollution. In: <i>Frontiers in Ecology and the Environment</i> (4): 191-198.	This study reviews the potential sources and ecological impacts of light pollution from artificial night lighting. The study concludes that ecological light pollution has demonstrable effects on both behavioral and population ecology of organisms.
Perkin, E.; Holker, F.; Richardson, J.; Sadler, J.; Wolter, C.; Tockner, K. 2011. The influence of artificial light on stream and riparian ecosystems: questions, challenges, and perspectives. <i>Ecosphere</i> 2(11):122. November 2011.	This study reviews the current literature on artificial lighting impacts on stream and riparian ecosystems.
International Dark-Sky Association, undated. Effects of Artificial Light at Night on Wildlife.	This study reviews effects of artificial light at night on multiple wildlife species. The study includes discussion of light fixation hazards for birds migrating during the night.
EcoBridges Environmental Consulting, 2005. Effects of Light at Night on Waterfowl and Shorebirds: A Literature Review for the Berkeley Playing Fields Project. Prepared by Anne Wallace. March 2005.	This document is a literature review of the effects of lights at night on birds prepared as an Appendix to an EIS for a project in Berkeley. The review concluded that literature on the effects of light at night on waterbirds is limited, and most of the literature only provided anecdotal reports of changes to behavior. The review suggests there may be more subtle influences of artificial night lighting on the behavior and community ecology of species that needs to be studied further.