
APPENDIX H

Biological Resources Reconnaissance Survey
and CEQA Analysis

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Report of Findings

Biological Resources Reconnaissance Survey and CEQA Analysis Silva Dairy Farms Expansion Project

Location:

499 N. Edminster Road,
Stevinson CA 95374

37° 18' 36.58"N, 120° 53' 51.14"W

Permit Sought: Conditional Use Permit No. CUP21-011



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CONTENTS

| | |
|--|----|
| 1 Summary | 1 |
| 2 Introduction | 1 |
| 2.1 Purpose of the Study | 1 |
| 2.2 Applicable Laws and Regulations | 1 |
| 2.3 Project Location | 6 |
| 2.4 Project Description | 6 |
| 3 Methods and Survey Limitations | 8 |
| 3.1 Methods | 8 |
| 3.2 Limitations | 9 |
| 4 Survey Results | 9 |
| 4.1 Physical Characteristics | 9 |
| 4.2 Vegetation and Wildlife | 9 |
| 4.3 Sensitive Habitats, Special-Status Plants, and Special-Status Wildlife | 11 |
| 4.4 Potentially Jurisdictional Waters/Wetlands | 26 |
| 5 Project Impact Analysis | 27 |
| 5.1 Standards of Significance | 27 |
| 5.2 Impacts to Biological Resources | 28 |
| 6 References | 42 |

TABLES

| | |
|--|----|
| Table 1. Existing and Proposed Herd at the Silva Dairy Farms | 6 |
| Table 2. Wildlife Species Observed in the Project Vicinity | 11 |
| Table 3. Special-Status Species Reported on the CNDDDB, CNPS Inventory, and USFWS Species List for the Silva Dairy Farms Expansion Project Area | 14 |

FIGURES

Figure 1. Regional Location

Figure 2 Project Vicinity

Figure 3. Proposed Dairy Facilities

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 Silva Dairy Farms Expansion Project proposes modify and expand the existing dairy to house a total of 7,300 animals, including 4,000 milk cows, 500 dry cows, and 2,800 support stock, and to officially merge the two existing separate dairy facility permits into a single permit. Considering the existing 2,953 animals at the dairy facility, the proposed expansion would represent an increase of 4,347 animals from existing numbers. The proposed project would include construction of supporting buildings and features at the dairy facility, including five new free stall barns, two loafing barns, commodity barn, milking parlor expansion, a shop, and dry manure storage and calf hutch area. With construction of the proposed facilities, approximately 7 acres of cropped acreage would be converted to active dairy facilities. The remaining acreage would continue to be cultivated with dairy feed crops.

A reconnaissance-level biological survey was conducted on May 10, 2023, by biologists from Padre Associates, Inc. (Padre). A number of special-status species, including Swainson's hawk and tricolored blackbird have been reported within approximately five miles of the Silva Dairy Farms Expansion project site. 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) biological impact analysis conducted for the Silva Dairy Farms Expansion Project in Merced County, California. The biological reconnaissance survey was conducted by Padre biologists on May 10, 2023, to describe and map biological resources at the project site and surrounding areas and determine whether suitable habitat is present for special-status 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 site and surrounding 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 Fully Protected Species by the California Department of Fish and Wildlife (CDFW);
- Listed as a species of special concern by the 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: The 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 the 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, but 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.

Food Security Act of 1985. The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) is responsible for delineation of wetlands on agricultural lands. The wetland conservation provisions of the 1985 Food Security Act removed incentives for production of agricultural commodities on converted wetlands making farmers ineligible for program benefits for agricultural commodities produced on wetlands converted after December 23, 1985, unless the functions of the converted wetlands were mitigation or unless an exemption applies. The NRCS is responsible for wetland certifications made to determine eligibility for USDA program benefits. An NRCS certification may result in determination of “prior converted croplands” or “farmed wetlands” depending on the date of conversion to agricultural croplands and other factors.

“Prior converted croplands” are wetlands that were both manipulated (e.g., drained or otherwise physically altered to remove excess water) and cropped prior to December 23, 1985, to the extent that they no longer exhibit important wetland values and are inundated for no more than 14 consecutive days during the growing season. Prior converted cropland does not include pothole or playa wetlands or wetlands that are seasonally flooded or ponded for 15 or more consecutive days during the growing season.

“Farmed wetlands” are wetlands that were both manipulated and cropped before December 23, 1985, but which continue to exhibit important wetland values. Farmed wetlands include cropped areas with 15 or more consecutive days of inundation during the growing season or cropped potholes and playas.

The wetland conservation provisions are intended to protect remaining values, acreage, and functions of the farmed wetlands. Farming of wetlands under natural conditions may occur; however, no action can be taken to increase effects on the water regime beyond that which existed on December 23, 1985, unless NRCS determines the effect on loss of remaining wetland values would be minimal under CFR Title 7, Subtitle A §12.5(b)(1)(v).

The production of an agricultural commodity on lands determined by NRCS to be prior converted cropland is exempted from USDA Regulations for the area that was converted.

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 (CWA). 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.

The ACOE will determine CWA jurisdiction for areas that are in agricultural production proposed for development to determine if a Section 404 permit is required. According to ACOE regulatory guidance, prior converted croplands typically have been subject to such extensive and relatively permanent physical hydrological modification and alteration of hydrophytic vegetation that the resulting cropland constitutes the normal circumstance for purposes of CWA jurisdiction, and subsequently are not subject to regulation under Section 404 of the CWA. For croplands designated as prior converted cropland or farmed wetland by the NRCS, the ACOE will rely upon NRCS designations to the extent possible when determining CWA jurisdiction. For croplands not previously designated, the ACOE will consult with NRCS staff when determining CWA jurisdiction.

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 ACOE 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 existing Silva Dairy Farm operation consists of two separate dairy facilities located on the north and south side of State Route (SR) 140 at the intersection of Edminster Road in the Stevinson area of the County. The main dairy facility is located south of SR 140 on approximately 25 acres, and the north facility is located on approximately 18 acres; the total existing farm area includes 414 acres on 22 parcels. The south dairy facility is located on portions of two parcels identified as Merced County Assessor’s Parcel Numbers (APN) 055-210-020 (19.4 acres) and 055- 210-049 (33.8 acres). The north dairy site is located on one parcel identified as APN 055-210-024 (18.2 acres). The dairy project site is located in Section 20, Township 7 South, Range 10 East, Mount Diablo Base and Meridian; 37°18’36.58”N, 120°53’51.14”W.

2.4 PROJECT DESCRIPTION

The project proposes to expand an existing dairy so that the modified dairy would house 4,000 milk cows, 500 dry cows, and 2,800 support stock. This would represent an increase of 4,347 animals from existing numbers (Table 1). The proposed project would officially merge the two existing separate dairy facility permits into a single permit. The proposed project would include construction of supporting buildings and features at the dairy facility, including five new free stall barns, two loafing barns, commodity barn, milking parlor expansion, a shop, and dry manure storage and calf hutch area. With construction of the proposed facilities, approximately 7 acres of cropped acreage would be converted to active dairy facilities. The remaining acreage would continue to be cultivated with dairy feed crops.

| Table 1 Existing and Proposed Herd at the Silva Dairy Farms | | | | | | | |
|--|------------------|-----------------|---------------------------------|---------------------------|-------------------------|-------------------------|----------------------|
| | Milk Cows | Dry Cows | Bred Heifers (15-24 mo.) | Heifers (7-14 mo.) | Calves (4-6 mo.) | Calves (0-3 mo.) | Total Animals |
| Existing Herd | 1,420 | 185 | 337 | 438 | 177 | 396 | 2,953 |
| Proposed Herd | 4,000 | 500 | 1,000 | 1000 | 400 | 400 | 7,300 |
| Change | 2,580 | 315 | 663 | 562 | 223 | 4 | 4,347 |

Note: This evaluation considers maximum buildout.

Sources: Existing Conditions Nutrient Management Plan (05/14/2021); Proposed Conditions Nutrient Management Plan (05/14/2021).;

The proposed project would include the construction of supporting buildings and structures totaling 353,572 square feet at the existing dairy. At the north facility, proposed structures include three free stall barns of approximately 59,110 square feet, 27,825 square feet, and 15,360 square feet, two loafing barns of approximately 42,665 square feet and 41,472 square feet and associated corrals, and a 60,000 square foot dry manure storage and calf hutch area. At the south facility, proposed structures include two free stall barns of approximately 35,700 square feet and 63,000 square feet, a 44,000 square-foot commodity barn, a 22,040 square-foot milking parlor expansion, and a 2,400 square-foot shop. With construction of the proposed facilities, approximately 7 acres of cropped acreage would be converted to active dairy facilities. See Figure 3 for proposed dairy facilities.

Cropped acreage associated with the expanded dairy operations would include approximately 357 acres, with the conversion of 7 acres of cropland for construction of the proposed wastewater storage pond. Crops grown on-site would continue to be used for dairy feed crops and supplement imported grain and hay. Silage piles would remain the same as existing operations.

Animal wastes from free stall and other concrete-surfaced areas would continue to be flushed to an onsite 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.

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 19 to approximately 25 total workers, with as many as 16 anticipated to be on site during peak hours.

3 METHODS AND SURVEY LIMITATIONS

3.1 METHODS

Padre biologists evaluated the potential biological resource impacts of the Silva Dairy Farms 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 (Gustine) and for the surrounding eight USGS topographic quadrangles (Hatch, Ingomar, Howard Ranch, Crows Landing, Turlock, Newman, San Luis Ranch, and Stevinson) (CDFW, 2023). The CNDDDB record search reports 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 (Appendix C).

Padre also conducted a query of the California Native Plant Society's Electronic Inventory (CNPS, 2023) 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 for the project site and Merced County to provide information on federally listed species that have the potential to occur in the vicinity of the proposed project (Appendix B). A query of the USFWS National Wetland Inventory (NWI) Map for the Gustine quadrangle was conducted for information regarding mapped wetlands in the project area (Appendix D).

The results of the database search and location analysis were used to determine if any sensitive resources had been previously reported onsite or in the immediate local vicinity of the Silva Dairy Farms Expansion project site and 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 May 10, 2023. 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 special-status species, recording observed plant and animal species (Table 2), and surveys for regulated habitats and potentially jurisdictional aquatic resources. The survey was conducted during the day between 8:00 a.m. and 10:30 a.m. The weather was mostly sunny with a light breeze and a high of approximately 67°F. The reconnaissance survey involved surveying the entire project site, including on-foot and windshield evaluations of the site, including surveys of the croplands to be converted into a wastewater pond

(Figure 3a and 3b). Berms along field margins, wastewater ponds, and ditches were surveyed 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 recent signs of nesting activity. Trees were limited onsite, but large trees in the surrounding riparian area south of the dairy were surveyed for evidence of raptor presence and evaluated for nesting habitat suitability. Dominant flora and fauna were noted (when present) and identified to the lowest possible taxon.

3.2 LIMITATIONS

The survey was conducted at a reconnaissance level, not a focused or protocol survey level. The survey lasted approximately two hours but did not include dawn or dusk surveys or extended observations.

4 SURVEY RESULTS

4.1 PHYSICAL CHARACTERISTICS

The main dairy facility is located south of SR 140 on approximately 25 acres, and the north facility is located on approximately 18 acres. The total existing farm area includes 414 acres on 22 parcels. At the time of surveys, the crop fields had been recently harvested and disked and were not planted at the time of field surveys.

4.2 VEGETATION AND WILDLIFE

The proposed wastewater storage pond area is located in cultivated cropland and is bordered on west by existing dairy facilities. The field planned for the conversion to the wastewater storage was a recently harvested grain crop. The eastern and southern sides of the field planned for conversion to the proposed wastewater storage pond are bordered by an irrigation canal that contained water and some emergent vegetation at the time of field surveys. This canal is connected to a large, ponded, wetland area south of the field. These waterways contained emergent vegetation including broad-leaved cattail (*Typha latifolia*), tule (*Schoenoplectus acutus* var. *occidentalis*), lamp rush (*Juncus effusus*), and tall cyperus (*Cyperus eragrostis*). This vegetation can provide nesting habitat for bird species including red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), and marsh wren (*Cistothorus palustris*). The canal and connected wetland area could be suitable aquatic habitat for a variety of wildlife species including western pond turtle (*Emys marmorata*) and giant gartersnake (*Thamnophis gigas*). Fish species like mosquito fish (*Gambusia affinis*), common carp (*Cyprinus carpio*), and brown bullhead (*Ameiurus nebulosus*) may also utilize aquatic habitat. These wildlife species can attract predators like great egret (*Ardea alba*), coyote (*Canis latrans*), and North American river otter (*Lontra canadensis*).

The cropland surrounding the active dairy provides suitable foraging for raptors such as Swainson's hawk (*Buteo swainsoni*) and trees suitable for raptor nesting are present in the riparian area located approximately 650 feet south the existing dairy facilities. Both Swainson's hawk and tricolored blackbird (*Agelaius tricolor*) were observed flying over the proposed wastewater storage pond area during surveys.

The areas proposed for expansion within the active dairy facility had much less vegetation and wildlife present. Vegetation observed within the developed dairy included isolated patches of ripgut grass (*Bromus diandrus*) and alkali weed (*Cressa truxillensis*). Wildlife species observed within the active dairy facility boundaries was primarily limited to bird species that are well adapted to human disturbance including house sparrow (*Passer domesticus*), Eurasian collared-dove (*Streptopelia decaocto*), Brewer's blackbird (*Euphagus cyanocephalus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*). This is due to the increased intensive dairy operations on this side of the property.

As shown in Table 2, a variety of wildlife species were observed in the vicinity of the project site. Species observed within the dairy were predominantly bird species that are well adapted to human disturbance while a wider variety of wildlife was observed adjacent to the southern portion of the dairy near wetland and riparian areas. Minimal mammal activity was observed aside from various species in riparian areas outside of the main development of the dairy.

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 104-year period of record at the Newman Weather Station, the average annual maximum temperature is 77.3°F, peaking in July at 97.3°F. The average annual minimum temperature is 36.2°F, with the lowest being in December at 35.7°F (Western Regional Climate Center, 2023). The project site contains four soil types. Hilmar loamy sand (HhA), slightly saline-alkali, 0 to 3 percent slope, Traver fine sandy loam (ToA), moderately saline-alkali, 0 to 1 percent slopes, Grangeville loam (GcA), slightly saline-alkali, 0 to 1 percent slope, and Traver fine sandy loam (TnA), slightly saline-alkali, 0 to 1 percent slopes (Natural Resources Conservation Service, 2023)

| Table 2 Wildlife Species Observed in the Project Vicinity | |
|--|-------------------------------|
| Common Name | Scientific Name |
| Birds | |
| Mallard | <i>Anas platyrhynchos</i> |
| Rock Pigeon | <i>Columba livia</i> |
| Eurasian Collared-Dove | <i>Streptopelia decaocto</i> |
| Black-necked Stilt | <i>Himantopus mexicanus</i> |
| Killdeer | <i>Charadrius vociferus</i> |
| Great Egret | <i>Ardea alba</i> |
| White-faced Ibis | <i>Plegadis chihi</i> |
| Swainson's Hawk | <i>Buteo swainsoni</i> |
| Red-tailed Hawk | <i>Buteo jamaicensis</i> |
| Black Phoebe | <i>Sayornis nigricans</i> |
| Tree Swallow | <i>Tachycineta bicolor</i> |
| Barn Swallow | <i>Hirundo rustica</i> |
| Marsh Wren | <i>Cistothorus palustris</i> |
| European Starling | <i>Sturnus vulgaris</i> |
| House Sparrow | <i>Passer domesticus</i> |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> |
| Tricolored Blackbird | <i>Agelaius tricolor</i> |
| Brewer's Blackbird | <i>Euphagus cyanocephalus</i> |
| Great-tailed Grackle | <i>Quiscalus mexicanus</i> |
| Mammals | |
| Coyote | <i>Canis latrans</i> |
| North American River Otter | <i>Lontra canadensis</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);
- Queries of the CDFW's California Natural Diversity Database (CNDDDB) and Biogeographic Information and Observation System (BIOS); and,
- Query of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants database.

To determine the special-status species occur in the vicinity of the project area, the CNDDDB was queried spatially for the nine USGS topographic quadrangles that surround the project site. Species recorded within nine quadrangle search area 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 Species List for the nine-quadrangle area and the USFWS Species List for the project identified six natural communities, 21 special-status plants, and 34 special-status wildlife species (Table 3 and Appendix B and C).

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 six sensitive natural communities recorded in the area (Cismontane Alkali Marsh, Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, Sycamore Alluvial Woodland, Valley Sacaton Grassland, and Valley Sink Scrub) do not occur on the project site. The Great Valley Cottonwood Riparian Forest and the Sycamore Alluvial Woodland may occur in the riparian corridor along the San Joaquin River which begins approximately 650 feet south of active dairy facilities.

Neither special-status plants nor habitat that would support special-status plants occur on the project site or in the adjacent croplands due to the disturbed nature of the dairy facility and agricultural lands.

Special-status wildlife species that may occur on the site from time to time include tricolored blackbird, Swainson's hawk, northern harrier, and loggerhead shrike. Swainson's hawk, tricolored blackbird, loggerhead shrike, giant gartersnake, and western pond turtle have been reported within five miles of the project site.

Swainson's hawks and tricolored blackbirds were observed during the reconnaissance survey on the Project site. Foraging habitat for both species is present at the project site. Nesting habitat for Swainson's hawk is present in the riparian corridor to the south of the project site and the emergent wetland vegetation south of the dairy may provide suitable nesting habitat for tricolor blackbird as would surrounding croplands if they are in production of triticale or other grain crop that is suitable to support nesting colonies of tricolor blackbird.

The southern portion of the project site is adjacent to potentially suitable aquatic habitat for giant gartersnake and western pond turtle that could occur in the canal and wetland area. Some of the proposed project activities would occur within 100 feet of the potential aquatic habitat. No giant gartersnake or western pond turtles were observed during

survey efforts. There was no vernal pool habitat observed during the reconnaissance survey that could support special-status vernal pool species.

The project site may provide occasional foraging opportunities for a number of additional sensitive wildlife species including various species of raptors and migratory birds that are protected by the MBTA.

Table 3
Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species List for the Silva Dairy Farms Expansion Project Area

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|--|---------------------|--|--|
| SPECIAL-STATUS PLANTS | | | |
| <i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch | 1B.2 | Playas, valley and foothill grassland (adobe soils) and vernal pools at elevations ranging from 3 to approximately 200 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>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 at elevations ranging from 3 to approximately 500 feet. 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 depressa</i> Brittlescale | 1B.2 | Chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools at elevations ranging from 5 to 1,050 feet. 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 feet. 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 feet. 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>Castilleja campestris</i> ssp. <i>succulenta</i> Fleshy owl's-clover | FT, SE, 1B.2 | Vernal pools, often with acidic conditions, at elevations ranging from 165 to 2460 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 Silva Dairy Farms Expansion Project Area**

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|--|
| <i>Chamaesyce hooveri</i> Hoover's spurge | FT | 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 feet. Blooms from July 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>Chloropyron molle</i> ssp. <i>hispidum</i> Hispid bird's-beak | 1B.1 | Meadows and seeps, playas, and valley and foothill grasslands with alkaline soils at elevations ranging from sea level to approximately 500 feet. 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 impact this species. |
| <i>Eryngium racemosum</i> Delta button-celery | SE, 1B.1 | Valley and foothill woodlands and vernal pools at elevations ranging from sea level to approximately 100 feet. Blooms from June to October, sometimes starting in 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 spinosepalum</i> Spiny-sepaled button-celery | 1B.2 | Valley and foothill grasslands and vernal pools at elevations ranging from 260 to approximately 3,200 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. |
| <i>Extriplex joaquinana</i> San Joaquin spearscale | 1B.2 | Alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands. Typically occurs at elevations ranging from sea level to approximately 2,700 feet. 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>Lasthenia chrysantha</i> Alkali-sink goldfields | 1B.1 | Alkaline vernal pool habitat at elevations ranging from 0 to approximately 655 feet. Bloom from February to April. | Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species List for the Silva Dairy Farms Expansion Project Area

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|--|--|
| <i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields | 1B.1 | Coastal salt marshes and swamps, playas, and vernal pools at elevations ranging from 1 to approximately 4,000 feet. Blooms from February 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>Monardella leucocephala</i> Merced monardella | 1A | Mesic and sandy valley and foothill grasslands from approximately 115 to 330 feet in elevation. This species is presumed extinct in California. Blooms 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>Navarretia prostrata</i> Prostraste vernal pool navarretia | 1B.2 | Cismontane woodland, valley and foothill grasslands, and vernal pools at elevations ranging from 10 to approximately 3,970 feet. 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. |
| <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 gras | FT, SE, 1B.1 | Vernal pools at elevations ranging from 32 to approximately 2,480 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>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 | Assorted freshwater habitats including swamps and marshes at elevations ranging from 0 to approximately 2,130 feet. 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>Stuckenia filiformis</i> ssp. <i>alpina</i> northern slender pondweed | 2B.2 | Shallow freshwater marshes and swamps at elevations from 985 to approximately 7,055 feet. Blooms from May to July. | Absent. There is no suitable habitat to support this plant on the project site. The proposed project would not impact this species. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species
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| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|--|--|
| <i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis | 2B.1 | Alkaline meadows and seeps, marshes and swamps, riparian forests, and vernal pools at elevations ranging from 15 to approximately 1,425 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. |
| SPECIAL-STATUS INVERTEBRATES | | | |
| <i>Bombus crotchii</i> Crotch bumble bee | SCE | This species is 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 February to October. | Absent There is no suitable habitat on site to support this species. 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 and lack of vernal pool habitat. Nearest occurrence (Occ. #3) from 1995 is located approximately 1.8 miles southeast of the project site. The proposed project would not impact this species. |
| <i>Branchinecta longiantenna</i> Longhorn fairy shrimp | FE | The habitat characteristics typical of the pools that support the longhorn fairy shrimp are clear to turbid pools often in alkaline soils. These include clear-water depressions in sandstone outcroppings, grass-bottomed pools, and claypan pools. | Absent. There is no suitable habitat to support this species on the project site due to the level of disturbance in agricultural lands and lack of vernal pool habitat. Nearest occurrence (Occ #8) from 2008 is located in an undisclosed location within the Gustine quadrangle The proposed project would not impact this species. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species List for the Silva Dairy Farms Expansion Project Area

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|---|
| <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 and lack of vernal pool habitat. Nearest occurrence (Occ. #944) from 2016 in vernal pool habitat located 2.2 miles south of the project site. The proposed project would not impact this species. |
| <i>Danaus plexippus</i> Monarch butterfly | FC | Monarchs roost in eucalyptus, Monterey cypress, Monterey pine, and other trees in groves along the Pacific coastline of California, arriving starting in late October. Dispersal from these roosts generally begins in mid-February. Milkweed and nectar plant availability throughout the spring, summer and fall is important for monarch migration. In areas of the desert southwest, monarchs use nectar and milkweed plants throughout much of the year. | Absent. There is no habitat to support this species on the project site. The nearest occurrence is over 70 miles west of the site on the coast. The proposed project would not impact this species. |
| <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 (<i>Sambucus mexicana</i>) plants are obligate hosts for the VELB, providing a source of food and broodwood. | Absent There is no suitable habitat on site to support this species. The closest recorded occurrence (Occ. #47) from 1999 is approximately 9.9 miles northeast of the project 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 and lack of vernal pool habitat. The nearest occurrence (Occ #52) from 2016 is located approximately 1.2 miles south of the project site. The proposed project would not impact this species. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species
List for the Silva Dairy Farms Expansion Project Area**

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|--|---------------------|---|---|
| SPECIAL-STATUS FISH | | | |
| <i>Acipenser medirostris</i> pop. 1 Green sturgeon – southern DPS | FT | Anadromous fish species found in near shore marine and estuarine environments from Alaska to Baja California, Mexico. Juveniles have been collected in the San Francisco Bay up to the lower reaches of the Sacramento and San Joaquin Rivers. Green sturgeon depend on large rivers to spawn, typically in deep pools in large turbulent mainstem rivers. Spawning is documented in Sacramento River, but little is known about specific spawning locations. | Absent. There is no suitable aquatic habitat to support this species on the project site. The proposed project would not impact this species . |
| <i>Oncorhynchus mykiss irideus</i> pop. 11 steelhead - Central Valley DPS | FT | Steelhead is an anadromous species native to the Pacific Ocean and coastal drainages. Steelhead live the majority of their life cycle in the Pacific Ocean then migrate upstream to spawn between October and January. Spawning typically occurs between December and April. | Absent. There is no suitable aquatic habitat to support this species on the project site. The proposed project would not impact this species. |
| <i>Pogonichthys macrolepidotus</i> Sacramento splittail | CSC | Found in lakes and rivers of the Central Valley, and is capable of tolerating moderate levels of salinity. Upstream spawning migration occurs from November through May. Preferred spawning substrate consists of freshwater submerged vegetation within inundated floodplains. | Absent. There is no suitable aquatic habitat to support this species on the project site. The proposed project would not impact this species. |

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List for the Silva Dairy Farms Expansion Project Area**

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|--|
| SPECIAL STATUS AMPHIBIANS | | | |
| <i>Ambystoma californiense</i> California tiger salamander | FT, ST, WL | Seasonal pools and stockponds for breeding habitat. Needs underground refuges, especially ground squirrel burrows as upland habitat. | 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 and lack of vernal pools, stock ponds, or other suitable aquatic habitat. The nearest occurrence (Occ #3) from 1994 occurs in vernal pool habitat located approximately 0.3 miles south of the site. The proposed project would not impact this species. |
| <i>Rana boylei</i> pop. 4 foothill yellow-legged frog - central coast DPS | FPT, SE | Occurs in the foothills of the Coast, Cascade, and Sierra ranges from sea level to 6,000 feet. It is an inhabitant of streams and rivers in a variety of habits including foothill woodland, chaparral, and forest. It is generally found within a few feet of stream banks where it can bask on warm rocks, but escape quickly into the stream for protection. | Absent. There is no suitable aquatic or upland habitat to support this species on the project site. The nearest occurrence (Occ. #101) from 1943 is approximately 16.4 miles southwest of the project 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 upland habitat to support this species on the project site due to the level of disturbance in agricultural lands and lack of vernal pools or appropriate stock ponds. The nearest occurrence (Occ. #61) from 1993 is approximately 11 miles southwest of the project site. The proposed project would not impact this species. |
| <i>Spea hammondi</i> Western spadefoot | CSC | This species occurs primarily in grassland situations, but occasional populations also occur in valley-foothill hardwood woodlands. Breeding and egg laying normally takes place from late winter until the end of March. | Absent. There is no suitable habitat to support this species at the project site. Nearest occurrence (Occ. #32) from 1993 is approximately 1.5 miles south of the project site. The proposed project would not impact this species. |

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List for the Silva Dairy Farms Expansion Project Area**

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|---|
| SPECIAL STATUS REPTILES | | | |
| <i>Anniella pulchra</i> Northern California legless lizard | CSC | This species occurs in coastal dune, valley-foothill, chaparral, and coastal scrub habitats. | Absent. There is no habitat to support this species on the project site. The proposed project would not impact this species. |
| <i>Emys marmorata</i> Western pond turtle | FPT, 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. | Moderate. Suitable aquatic habitat occurs in the irrigation canal and wetland area adjacent to the southern portion of the Project area. Nearest occurrence (Occ. #276) from 2003 is located approximately 2.6 miles southwest of the site. The proposed project could impact this species. |
| <i>Gambelia silus</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. The proposed project would not impact this species. |
| <i>Thamnophis gigas</i> Giant garter snake | FT, ST | Freshwater marshes and streams. Has adapted to drainage canals and irrigation ditches. | Moderate. Suitable aquatic habitat occurs in the irrigation canal and wetland area adjacent to the southern portion of the Project area. Suitable aquatic habitat is located less than 100 feet from the proposed wastewater storage pond location. Nearest occurrence (Occ. #27) is from 1976 is located approximately 3 miles southwest of the site on a tributary of the San Joaquin River. A more recent occurrence from 2017 (Occ. 426) is 5.8 miles south of the project site. |
| 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. | Low – Foraging / Absent – Nesting. There are no dense tree stands on the project site that could provide nesting habitat for Cooper's hawk. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species
List for the Silva Dairy Farms Expansion Project Area**

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|---|
| <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. | Low – Foraging / Absent – Nesting. There are no dense tree stands on the project site that could provide nesting habitat for Sharp-shinned hawk.. |
| <i>Agelaius tricolor</i> Tricolored blackbird | ST, CSC, BCC | Nesting colony requires open water, protected nesting substrate and foraging area with insect prey within a few km of the colony. | Present – Foraging / Moderate Nesting. This species was observed during survey efforts. Suitable foraging habitat occurs in the croplands onsite and surrounding the project site. The corn and oat crops grown onsite are not a preferred nesting substrate; however, croplands may provide suitable nesting habitat, particularly if planted with triticale. Nearest occurrence (Occ. #605) from 2000 is a foraging occurrence near the intersection of Edminister Road and Hwy 140 near the project site with presumed nesting occurrence nearby. Approximately 7 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. There is very limited foraging or nesting habitat at the edges of the project site due to the high level of disturbance that is part of routine dairy operation. No significant mammal burrow colonies were observed during surveys that could provide suitable burrowing habitat for the species. Nearest occurrence (Occ. #199) from 1993 is approximately 12.8 miles southwest of the project site. 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 / Absent - Nesting. The closest recorded occurrence (Occ. #20) is located approximately 5.5 miles northwest of the project site and is from 1984. The proposed project would not impact this species. |

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| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|--|---|
| <i>Buteo swainsoni</i> Swainson's hawk | ST, BCC | Breeds in stands with few trees in juniper-sage flats, riparian areas in California's Central Valley and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. | Present – Foraging / High - Nesting. Species was observed flying over the project site during the survey. Suitable nesting habitat is present within riparian habitat less than 0.20 miles of the project site and suitable foraging habitat occurs in the croplands onsite and surrounding the project site. Nearest occurrence (Occ. #2452) from 2007 is located approximately 0.4 miles southwest of the project site. Approximately 7 acres of cropland providing potential foraging habitat will be impacted by this project. |
| <i>Circus hudsonius</i> Northern Harrier | CSC, BCC | Inhabits meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. It forages mostly on voles and other small mammals, birds, frogs, small reptiles, crustaceans, insects, and, rarely on fish. Breeding occurs April to September, with peak activity June through July. | Moderate – Foraging / Absent - Nesting. No suitable nesting habitat is present at the site. The nearest recorded occurrence of this species (Occ. #7) from 1972 is approximately 6.9 miles southeast of the project site. Despite a lack of recent occurrences, this species is commonly observed in the Great Valley Grasslands State Park which is located approximately 450 feet south of the project site. Approximately 7 acres of cropland providing potential foraging habitat will be impacted by this project. |
| <i>Eremophila alpestris actia</i> California horned lark | WL | Year-round resident of open areas in California with short sparse vegetation including prairies, deserts, dunes, heavily grazed fields, and plowed fields. Nests on the ground in a small depression. | Low – Foraging / Absent - Nesting. The closest, contemporary occurrence (Occ. #83) of this species from 2006 is 19 miles southwest of the project site. The proposed project is unlikely to impact this species. |
| <i>Gymnogyps californianus</i> California Condor | FE | Nests in caves or rock crevices, laying one egg per clutch between February and May. California condors have been observed making forays from the coast range across the Central Valley to the western slope of the Sierra Nevada Range, specifically roosting within Tulare and Kern counties for short periods of time, typically from late summer through early spring. | Absent - Foraging and Nesting. There is no suitable habitat to support this species on the project site. The proposed project is unlikely to impact this species. |

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| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|--|---|
| <i>Lanius ludovicianus</i> Loggerhead shrike | CSC | Open habitats like prairies and grasslands, with sparse perches including trees, shrubs, posts, and fences. | Moderate – Foraging / Low - Nesting. Limited suitable nesting habitat is present at the site. Loggerhead shrike forage in open areas like those present at the site and are likely to forage in the project vicinity. The nearest occurrence (Occ. #110) is approximately 3.5 miles south of the Project site from 2014. The proposed project is unlikely to impact this species. |
| <i>Vireo bellii pusillus</i> Least Bell's vireo | FE, SE | Typically nests in riparian habitat with dense shrub cover and a structurally diverse canopy. | Absent - Foraging and Nesting. There is no suitable habitat to support this species at the project site. Potentially suitable habitat may occur in the riparian habitat along the San Joaquin River to the south and west of the project site, however; project impacts will not impact these areas. There is only one historic occurrence in the region. Occurrence #507 from 1919 is approximately 9.3 miles northeast of the project site and is possibly extirpated. The proposed project would not impact this species. |
| SPECIAL STATUS MAMMALS | | | |
| <i>Antrozous pallidus</i> Pallid bat | CSC | Day roosts is caves and crevices; occasionally roosts in hollow trees and buildings. | Low. There are trees that could support roosting habitat for this species in the riparian area adjacent to the project site; however, no suitable habitat occurs onsite and no tree removal is proposed. Nearest occurrence (Occ. #395) from 1999 is approximately 4.3 miles northwest of the site. The proposed project is unlikely to impact this species. |
| <i>Dipodomys nitratooides exilis</i> Fresno kangaroo rat | FE, SE | Historically, this species occupied of alkaline sink shrublands and arid, alkaline grasslands of the San Joaquin Valley. | Absent. There is no suitable habitat to support this species on the project site. The proposed project would not impact this species. |

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Special-Status Species reported on the CNDDDB, CNPS Inventory and USFWS Species List for the Silva Dairy Farms Expansion Project Area

| Scientific Name Common Name | Status ¹ | Habitat Requirements | Likelihood of Occurrence |
|---|---------------------|---|---|
| <i>Lasiurus frantzii</i> Western red bat | CSC | It roosts in forest and woodland habitats from sea level to mixed conifer forests but feeds over a variety of habitats including grasslands and shrublands. Roosts almost exclusively in riparian areas. Prefers cottonwoods, sycamores, and willows for roosting | Low. There are trees that could support roosting habitat for this species in the riparian area approximately 650 feet south of the project site; however, no suitable habitat occurs onsite and no tree removal is proposed. The nearest occurrence (Occ. #80) from 1999 is approximately 4.3 miles northwest of the site. The proposed project is unlikely to 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. #294) is a historic occurrence located within the project area. The nearest occurrence seen in the last 20 years (Occ. #482) from 2009 is approximately 17.9 miles southwest of the project site. This species may occur occasionally as a transient but is not expected to den onsite. The 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 #600) of the species is from 1986 and is located approximately 0.4 miles southwest of the site. The nearest occurrence seen in the last 20 years (Occ. #127) from 2005 is located approximately 21.6 miles southwest of the project area. This species may occur occasionally as a transient but is not expected to den onsite. The proposed project would not significantly impact this species. |
| ¹ Status FE = Federal Endangered FT = Federal Threatened FDL = Federal Delisted FPT = Federal Proposed Threatened 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 WL = CDFW Watch List 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

The NWI map depicts a palustrine emergent wetland (PEM1A) in the cultivated cropland that is the proposed location of the new wastewater storage pond at the southern end of the project site. Additionally, NWI depicts the irrigation canal that is adjacent to the eastern and southern ends of this field as an excavated intermittent riverine feature (R4SBCx). There are no wetlands depicted in the northern portion of the dairy; however, an excavated unknown perennial riverine feature is depicted along the south side of SR 140 (USFWS, 2023). During the survey, there was no evidence of wetlands present in the southern portion of the dairy or the field proposed for cropland conversion to wastewater storage pond. The field appeared to have been recently harvested and disked prior to the survey. There were waters or wetlands identified within the proposed dairy expansion area.

5 PROJECT IMPACT ANALYSIS

The project includes approval of a new Conditional Use Permit (CUP21-011) from Merced County to officially merge the two existing separate dairy facility permits into a single permit. The proposed project will expand the existing dairy to house a total of 7,300 animals, including 4,000 milk cows, 500 dry cows, and 2,800 support stock. This represents an increase of 4,347 animals from existing numbers (see Table 1).

The proposed project would include the construction of supporting buildings and structures totaling 353,572 square feet at the existing dairy. At the north facility, proposed structures include three free stall barns, two loafing barns and associated corrals, and a dry manure storage and calf hutch area. At the south facility, proposed structures include two free stall barns, a commodity barn, a milking parlor expansion, and a shop. With construction of the proposed facilities, approximately 7 acres of cropland would be converted to active dairy facilities.

The proposed project would reduce the area of open corral space and increase the area of covered animal housing structures. With construction of the wastewater storage pond, there would be 7 acres of cropland converted to active dairy facilities.

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 routine site disturbance associated with agricultural operations. The Silva Dairy Farms Expansion Project is expected to have no increased impacts or no new impacts that would affect special-status plants. **(No impact)**

Wildlife

Western pond turtle

The irrigation canal adjacent to the southern and eastern sides of the south dairy facility and the wetland area to the south of the existing wastewater pond provides suitable habitat for western pond turtle. Suitable habitat for western pond turtle includes aquatic habitat with basking sites available for thermoregulation and nearby upland breeding habitat. The active dairy and agricultural land do not provide upland habitat due to the high level of human disturbance in upland areas onsite; however, potentially suitable upland habitat occurs south of the dairy facility in the Great Valley Grasslands State Park. No permanent impact or loss of aquatic habitat would occur because of the Project; however, because of the proximity of the proposed wastewater treatment pond to suitable aquatic habitat there is potential for temporary impact to the western pond turtle. **(Potentially significant)**

Recommended Mitigation:

BIO-1a

Prior to the initiation of construction, construction staff shall attend an Environmental Awareness Training Program that will cover special-status species that could occur on or near the site, their distribution, identification characteristics, sensitivities to

human activities, legal protection, penalties for violation of state and federal laws, required project avoidance, minimization, and mitigation measures, and procedures to follow if a potential special-status species is observed.

BIO-1b

If construction of the dairy expansion project involves excavation or other ground disturbance, and all ground disturbance is located in upland areas greater than 200 feet from suitable aquatic habitat, implementation of the project is expected to have a less than significant impact to western pond turtle and no mitigation is required.

If construction involves excavation or other ground disturbance within 200 feet of waterways, ponds, or other suitable aquatic habitat such as the irrigation ditch and wetland area adjacent to the proposed wastewater pond location, the following measures will be implemented:

1. A qualified biologist shall conduct preconstruction surveys for western pond turtles. Surveys shall be conducted within 48 hours of the start of construction at these locations to ensure that individuals are not present in the work area.
2. Prior to ground disturbance activities, exclusion fencing shall be installed, as directed by the qualified biologist, to isolate the workspace within 200 feet of suitable aquatic habitat and exclude turtles from the work areas. Exclusion fencing will be buried at the base to prevent turtles from moving under the fence into the construction area. Exclusion fencing shall be maintained for the duration of work in these areas and shall be routinely inspected to ensure the fencing is intact and effective. If western pond turtle is found within the work area, construction will be suspended in the area until the turtle leaves of their own volition and the biologist will coordinate with CDFW to ensure that the turtles are not harmed.

Giant Gartersnake

Giant gartersnake is a State and federally listed Threatened species that occurs in emergent marsh habitats associated with waterways during spring and summer and hibernates in adjacent upland habitat during the winter. Due to extensive habitat loss, giant gartersnakes now inhabit remaining wetlands as well as highly modified habitats, such as agricultural areas including irrigation ditches and canals. There is suitable aquatic habitat to support this species adjacent to the project site in the irrigation canal and wetland located south of the south dairy facility. The proposed wastewater storage pond is located adjacent to suitable aquatic habitat. The active dairy and agricultural land do not provide suitable upland habitat due to the high level of human disturbance in upland areas onsite; however, potentially suitable upland habitat occurs in the Great Valley Grasslands State Park south of the dairy. No permanent impact or loss of giant

gartersnake aquatic or upland habitat would occur because of the Project; however, due to the proximity of the proposed wastewater treatment pond to suitable aquatic habitat, there is a potential for giant gartersnake to be present near the dairy facilities, specifically near the proposed wastewater storage pond location. **(Potentially significant).**

Recommended Mitigation:

To reduce project related impacts to giant gartersnake, the following measures shall be implemented prior to and during construction activities.

BIO-2a

Prior to the initiation of construction, construction staff shall attend an Environmental Awareness Training Program that will cover special-status species that could occur on or near the site, their distribution, identification characteristics, sensitivities to human activities, legal protection, penalties for violation of state and federal laws, required project avoidance, minimization, and mitigation measures, and procedures to follow if a potential special-status species is observed.

BIO-2b

1. Construction of the proposed wastewater storage pond and any ground disturbance within 200 feet of suitable aquatic habitat shall be restricted to the period between May 1 and October 1. This is the active period for GGS when the potential for direct mortality is reduced because GGS can actively avoid disturbance.
2. Prior to the start of construction of the proposed wastewater storage pond, a qualified biologist shall conduct a preconstruction survey for GGS prior to the initiation of disturbance. Exclusion fencing shall be installed, as directed by the qualified biologist, to isolate the workspace within 200 feet of suitable aquatic habitat and exclude snakes from the work areas. Exclusion fencing will be buried at the base to prevent snakes from moving under the fence into the construction area. Exclusion fencing shall be maintained for the duration of work in these areas and shall be routinely inspected to ensure the fencing is intact and effective.
3. If a GGS is observed, the USFWS and CDFW shall be notified immediately. Construction will be suspended in the area until the snake leaves the site of its own volition.
4. All excavations within 200 feet of suitable GGS habitat shall be covered or have escape ramps installed to prevent entrapment prior to the end of work each day.
5. Erosion control materials shall consist of tightly woven fibers and netting to prevent entanglement of reptiles and amphibians. No monofilament materials will be allowed.

Bird Nesting and Foraging Habitat

Implementation of the project would result in the conversion of 7 acres of cropland to developed lands for expansion of the dairy facilities. A portion of the 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, particularly ground nesters, to breed onsite. Suitable habitat for ground nesting birds such as western meadowlark, killdeer, and horned lark is limited and only expected along edges of the agricultural fields (**Potentially significant**)

Recommended Mitigation:

BIO-3

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. Ground clearing and initiation of construction should occur outside the breeding season, if feasible (September 15 to February 15).
2. If ground clearing outside of nesting season is not feasible, a preconstruction survey shall be conducted to determine the presence of nesting birds for any ground clearing or construction activities that 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.
3. Construction shall not occur within a 500-foot buffer surrounding nests of raptors or a 100-foot buffer surrounding nests of migratory birds until the young have fledged or a qualified biologist determines the nest is no longer active.
4. If construction within these buffer areas is required, prior approval must be obtained from the CDFW.

Preconstruction surveys and avoidance measures would reduce this impact to less than significant. Further, while approximately 7 acres of cropland would be converted to active dairy facilities, approximately 357 acres would remain as cropland on the Silva Dairy Farms and surrounding the dairy facility and would continue to provide foraging habitat to bird species in the region.

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 2003 (Meese, 2014). Results of the TCBB statewide surveys conducted in 2017 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 surveys were postponed in 2020 and 2021 due to the pandemic. However, the most recent results of the 2022 statewide survey showed a continuation of the modest increase in statewide population since the low in 2014 and a 23 percent increase over the estimate from the 2017 statewide survey (Colibri Ecological Consulting, 2022).

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 as grasshoppers, dragonflies, and damselflies offer the best foraging habitat. However, dairy and silage edge as well as feed lots may be used for foraging. Surface water is typically present within a half mile of the nesting colony, a habitat criterion that is present at the Silva Dairy Farms Expansion project site. TCBB was observed at the project site during the site survey. The cropland had recently been harvested and disked; therefore, no nesting habitat was present in the project area. The croplands onsite and in the surrounding area could provide suitable nesting habitat for TCBB, particularly if they were in production of triticale silage, a common nesting substrate associated with dairy farms.

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).

Construction of the proposed dairy expansion would result in the conversion of approximately 7 acres of cropland to developed dairy facilities. Although the cropland planned for conversion is not currently planted in crops that are known to be preferred TCBB habitat, grainfields are considered potentially suitable TCBB habitat, particularly if preferred grain crop (e.g., triticale) is planted. **(Potentially significant)**

Recommended Mitigation:

Due to the potential for nesting TCBB onsite or in the surrounding area, the following measures shall be implemented prior to and during construction activities:

BIO-4a

Prior to the initiation of construction, construction staff shall attend an Environmental Awareness Training Program that will cover special-status species that could occur on or near the site, their distribution, identification characteristics, sensitivities to human activities, legal protection, penalties for violation of state and federal laws, required project avoidance, minimization, and mitigation measures, and procedures to follow if a potential special-status species is observed.

BIO-4b

1. Ground clearing and initiation of construction activities shall occur outside the breeding season, if feasible (September 15 to February 15).
2. If construction outside the breeding season is not feasible, a preconstruction survey shall be conducted to determine presence / absence of TCBB within 500 feet of project activities. This measure is also required for all MBTA protected nesting birds, as indicated above.
3. If a TCBB nest colony is discovered during preconstruction surveys, a minimum 300 foot buffer shall be applied around the nesting colony and all disturbance within the buffer area will be prohibited until the breeding season has ended or the qualified biologist has determined that there are no active nests remaining in the colony and the young have fledged and are no longer reliant on the colony or parental care for survival.
4. If implementation of the above measures to avoid take is not feasible, the applicant shall obtain an Incidental Take Permit from the CDFW pursuant to Fish and Game Code section 2081 prior to construction.

Swainson's Hawk

The state-threatened Swainson's hawk is known to nest and forage in the project vicinity. Swainson's hawks were observed flying over the dairy site during the May survey. Due to the proximity of suitable nesting habitat, direct impacts could occur if a Swainson's hawk nest occurs within trees near the project site. There are 33 Swainson's hawk nesting 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, 2023). 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.

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 7 acres of suitable 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:

BIO-5

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, and surveys would not be required.

A written report with the pre-construction survey results must be provided to the Merced County Community and Economic Development 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 a minimum 0.5-mile nest protection buffer until the breeding season has ended or until a qualified

biologist determines that the young have fledged and are no longer reliant on the nest for survival.

3. If implementation of the above measures to avoid take is not feasible, the applicant shall obtain an Incidental Take Permit from the CDFW pursuant to Fish and Game Code section 2081 prior to construction.
4. Foraging Impacts: CDFW requires mitigation for loss of foraging habitat based on the presence of active nests within 10 miles of the project (CDFG, 1994). If an active nest site is identified within ten miles of the project site, the project proponent shall provide off-site foraging habitat at a specified Mitigation Ratio that is based on proximity of the nest to the project site. Mitigation ratios for loss of foraging habitat are included in Table 4.

Table 1. Mitigation Ratios for Loss of Swainson’s Hawk Foraging Habitat

| Distance from Active Nest | Mitigation Acreage Ratio* |
|--|----------------------------------|
| Within 1 mile | 1:1** |
| 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.

The CDFW pre-approved CEQA mitigation measures are found in the Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (*Buteo swainsonii*) in the Central Valley of California (CDFG, 1994).

The Merced County Community and Economic Development 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. However, there are records from the CNDDB of occurrences of San Joaquin kit fox within the Great Valley Grasslands State Park approximately 0.4 miles south of the project site (Occ. #600) and at the San Luis National Wildlife Refuge, approximately 14 miles

southwest of the project site (CDFW, 2023). Signs of the American badger were not observed during field surveys and there are very limited contemporary occurrences of American badger within 20 miles of the project site. 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:

BIO-6a

Prior to the initiation of construction, construction staff shall attend an Environmental Awareness Training Program that will cover special-status species that could occur on or near the site, their distribution, identification characteristics, sensitivities to human activities, legal protection, penalties for violation of state and federal laws, required project avoidance, minimization, and mitigation measures, and procedures to follow if a potential special-status species is observed.

BIO-6b

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 12 and 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. Anyone 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 and USFWS immediately in the case of a dead, injured or entrapped kit fox.
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.
14. 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.
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.

Sensitive Natural Community

No riparian habitats or other sensitive natural communities have been mapped or observed within the Silva Dairy Farms Expansion Project area. An irrigation canal adjacent to the southeastern boundary of the Silva Dairy was conveying water during the field survey. The canal has freshwater emergent vegetation and is connected to an approximately 8.5-acre ponded wetland that supports emergent wetland vegetation, riparian habitat, and aquatic wildlife habitat. These aquatic habitat areas are within close proximity to the proposed wastewater treatment pond but will not be impacted by the project.

Because construction associated with the project is located in active cropland and dairy facilities, 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 depicts a palustrine emergent wetland (PEM1A) in the cultivated cropland that is the proposed location of the new wastewater storage pond at the southern end of the project site; however, currently the site is used in agriculture as an active dairy farm and cropland. Additionally, NWI depicts the irrigation canal adjacent to the eastern and southern perimeter of this field as an excavated intermittent riverine feature (R4SBCx). There are no wetlands depicted on the north dairy site and the only feature in that area is an excavated unknown perennial riverine feature depicted along the south side of SR 140 (USFWS, 2023). During the survey, there were no indicators of wetlands present in the southern field designated for the construction of a wastewater storage pond. The field appeared to have been recently harvested and disked prior to the survey. There were no agricultural ditches or other wetland indicators at any other location proposed for dairy expansion. Consequently, the Silva Dairy Farms Expansion Project would not have a substantial adverse effect on federally protected WoUS or 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 within the dairy site. A small riparian area occurs within the wetland south of the existing wastewater treatment pond and an expansive area of riparian habitat associated with the San Joaquin River and floodplain occurs within the Great Valley Grasslands State Park. The project is not located within the Grasslands Ecological Area (GEA). The south dairy facility (south of SR 140) is located within the Grasslands Focus Area (GFA). The north dairy facility (north of SR 140) is not located within the GEA or GFA.

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, 2004). 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, 2004). 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.

Existing night lighting at the Silva Dairy Farms includes building mounted lighting on the milking parlor and animal housing structures, and yard lighting near the office and residence at the south dairy facility. Light fixtures consist of fluorescent and LED bulbs. As older fixtures require replacement, they are replaced with LED.

With implementation of the proposed herd expansion, some existing lighting would be eliminated with removal of the existing storage building, residence, old milking parlor, shade barns, commodity barns and corrals. The proposed dairy expansion includes new building-mounted lighting on the proposed structures. 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 or natural 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. **(Potentially significant)**

Recommended Mitigation:

BIO-7

A Lighting Plan shall be developed to modify existing and future lighting at the Silva Dairy Farm. Project-related lighting shall be minimized and directed away or shielded to maintain lighting within developed areas of the facility and away from sensitive areas. No light trespass shall occur onto adjacent fields or off site. The Lighting Plan must comply with the following general standards:

Lighting shall be designed so that exterior light fixtures are hooded, with light directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project site boundary and neither the lamp nor the reflector interior surface are visible from outside the footprint of the facilities;

- Light fixtures shall be installed on poles of minimal height and/or be building-mounted;
- All lighting shall be of minimum necessary brightness consistent with worker safety;

- The number of lighting fixtures shall be limited to the minimum required;
- Illuminated areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied;
- All lighting poles, fixtures, and hoods will be dark-colored;
- Unless determined necessary by the County for safety or security reasons, any signs at the entry of the project site will not be lit (reflective coating is acceptable).
- When possible, green light bulbs will be utilized to minimize lighting impact on birds.

The Lighting Plan must specify the type and intensity of lighting and shall be approved by the County and implemented prior to final inspection.

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 adjacent agricultural fields and sensitive natural areas.

Conflict with Policies or Ordinances

Approval of the Silva Dairy Farms 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 Silva Dairy Farms 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

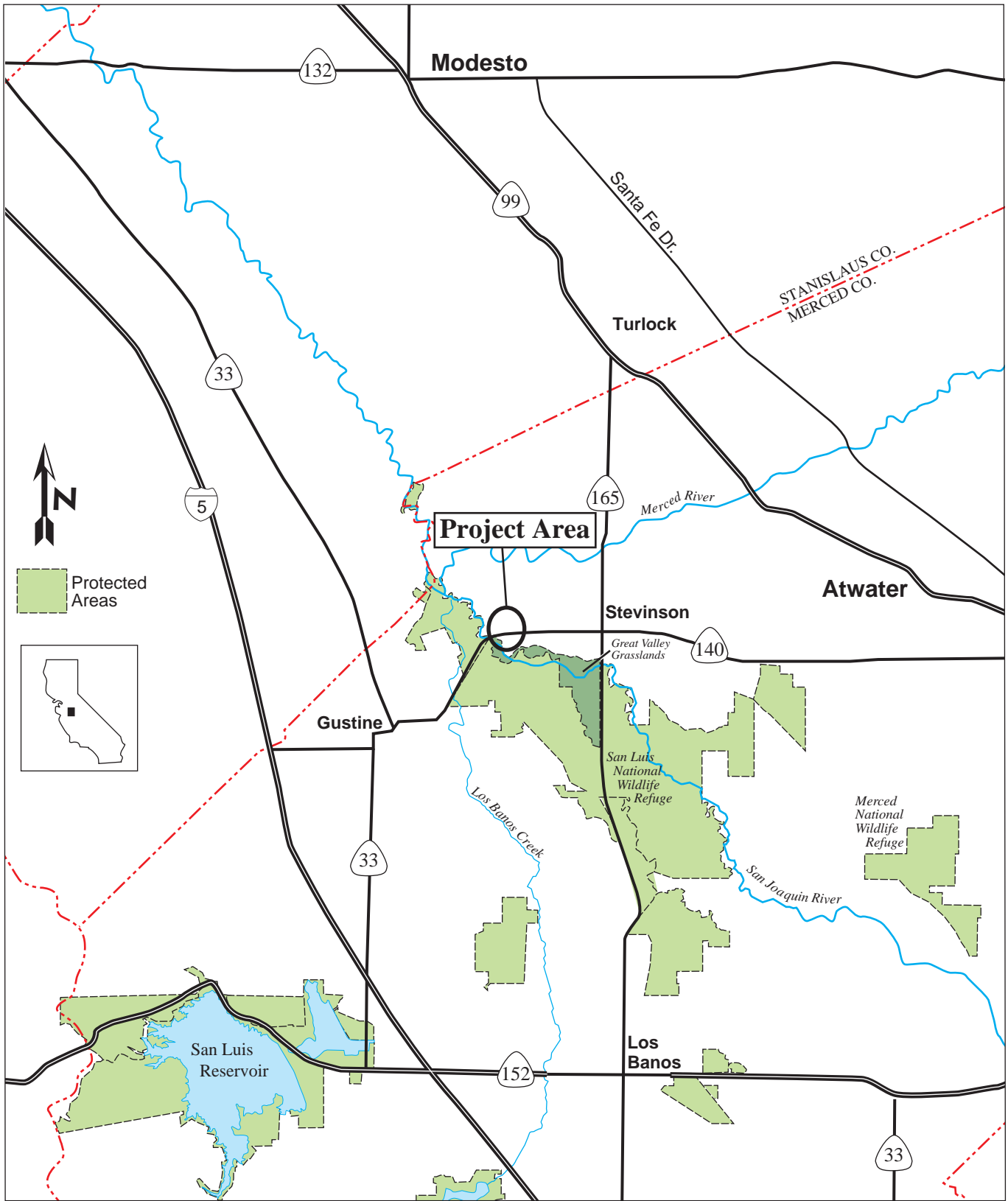
Throughout Merced County, the conversion of cultivated farmland to dairies and other developments is resulting in a cumulative and significant loss of foraging and nesting habitat for some special-status and migratory birds. Conversion of seven acres of the project site to a dairy facility would contribute to that cumulative loss; however, since project impacts to biological resources were determined to be less than significant after mitigation, there would be no cumulatively considerable contribution to these significant cumulative effects. Thus, the cumulative impact of the Silva Dairy Farms on biological resources would be less than significant.

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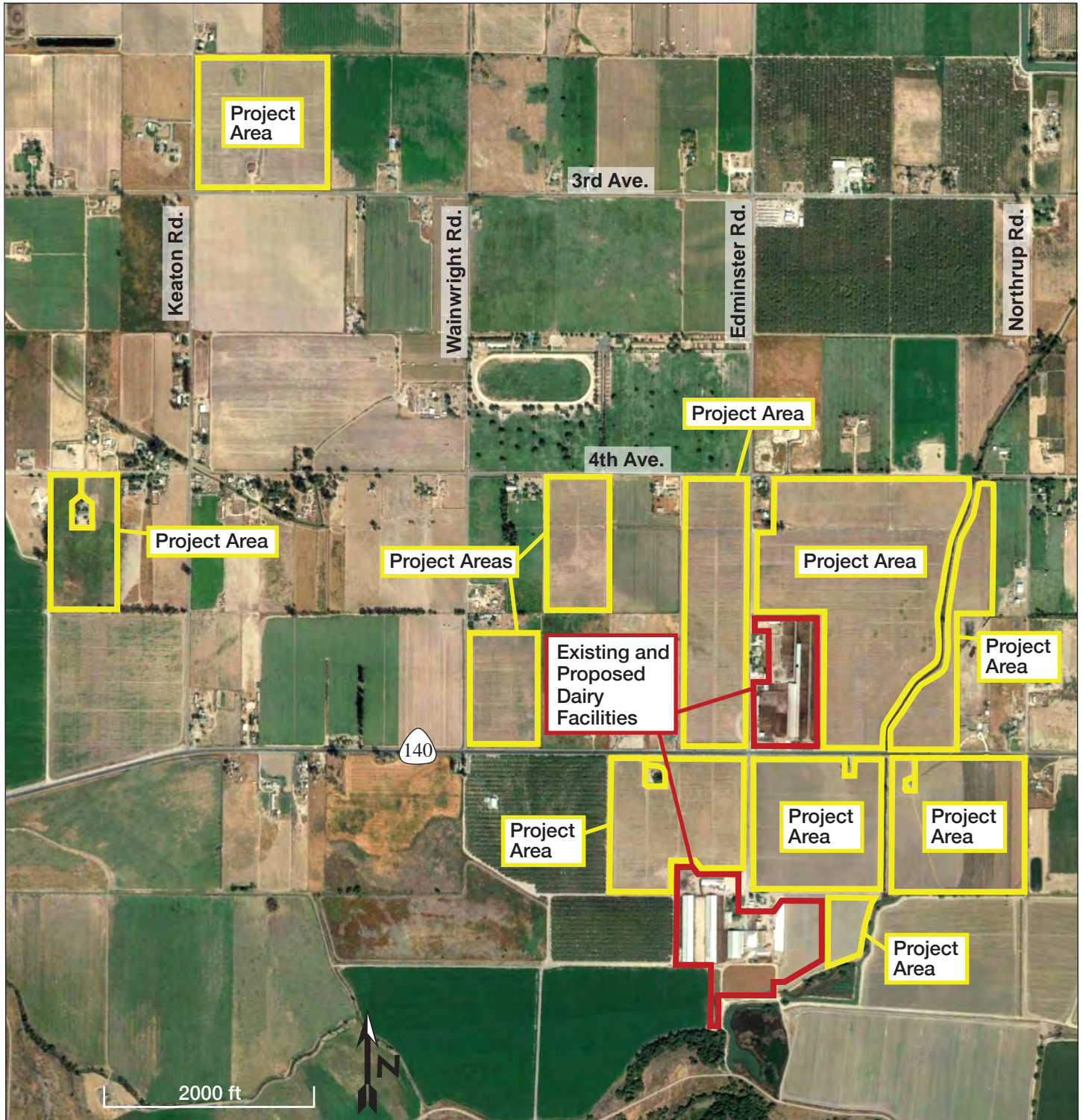
FIGURES



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners, 2021

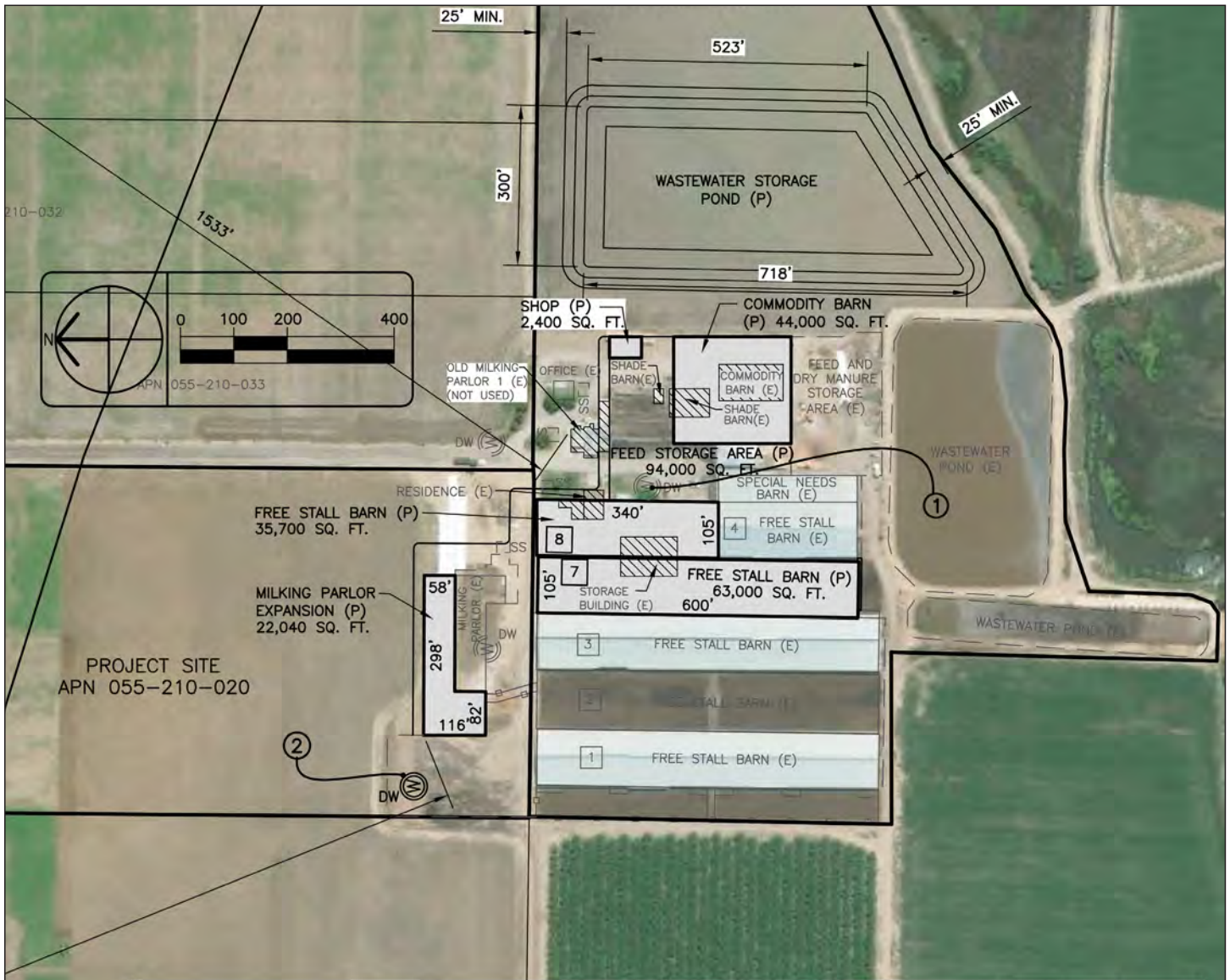
Figure 1
Regional Location



Silva Dairy Farms Expansion Project CUP21-011

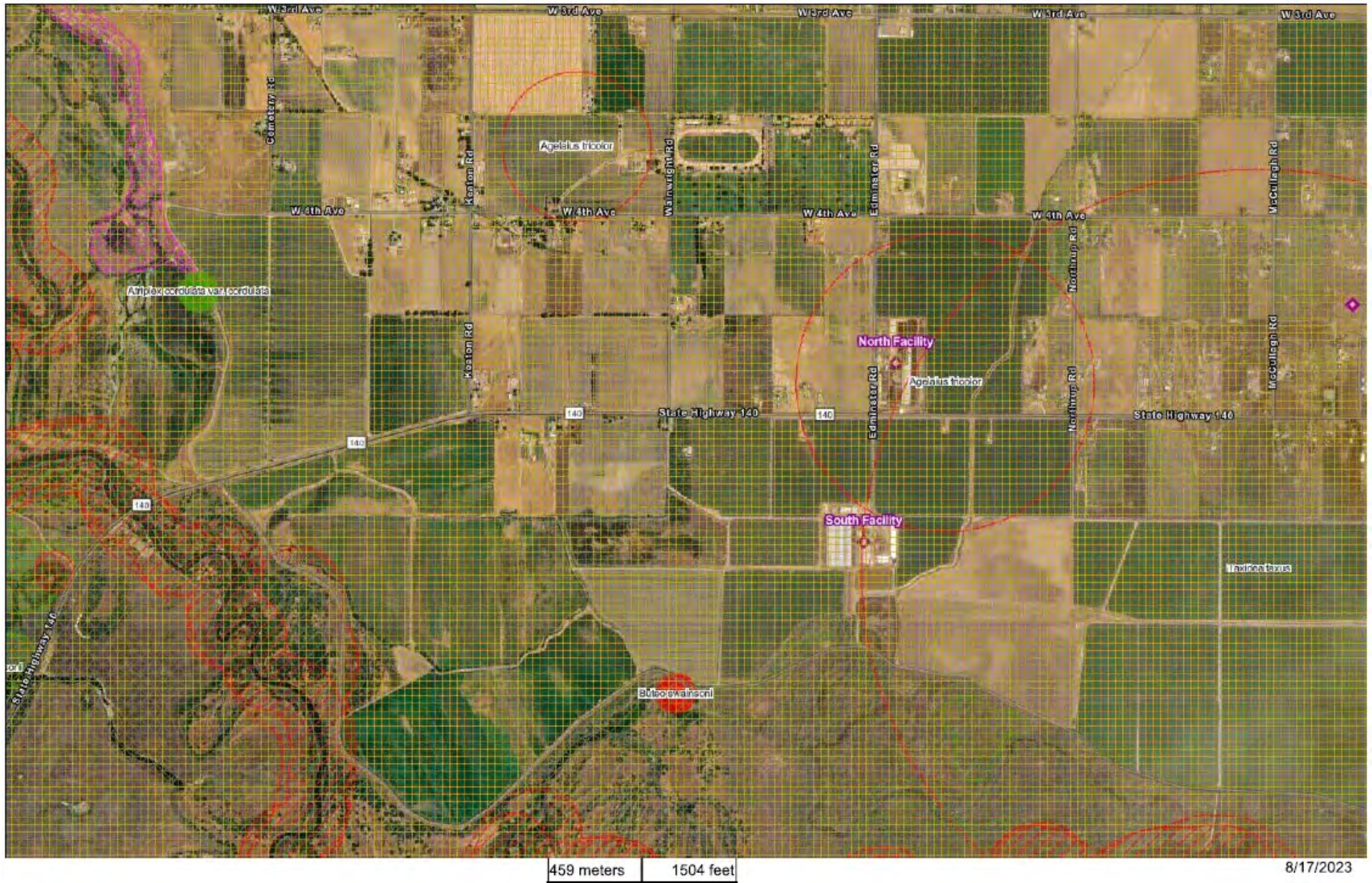
SOURCE: Planning Partners, 2021

Figure 2
Project Vicinity



| LEGEND | | ANIMAL HOUSING IDENTIFICATION LEGEND | |
|--------|--|--------------------------------------|--|
| | CORRAL (E) | | EXISTING CORRAL NUMBER |
| | EXISTING FACILITY IMPROVEMENT | | EXISTING LOAFING BARN NUMBER |
| | EXISTING COUNTOUR AND ELEVATION PER USGS TOPOGRAPHIC MAP | | EXISTING FREE STALL BARN NUMBER |
| | EXISTING FENCE | | PROPOSED CORRAL NUMBER |
| | EXISTING DOMESTIC WELL | | PROPOSED LOAFING BARN NUMBER |
| | APPROXIMATE LOCATION OF EXISTING SEPTIC TANK AND LEACH FIELD | | PROPOSED FREE STALL BARN NUMBER |
| | EXISTING WATER TANK | NOTES | |
| | EXISTING STRUCTURE TO BE REMOVED | | |
| | PROPOSED FACILITY IMPROVEMENT | | |
| | PROPOSED FENCE | | EXISTING WELL TO BE ABANDONED PRIOR TO FINAL INSPECTION OF FREE STALL BARN 8. |
| | PROPOSED STRUCTURE OR IMPROVEMENT | | REPLACEMENT DOMESTIC WELL TO BE DRILLED PRIOR TO ABANDONMENT OF EXISTING DOMESTIC WELL NEAR FREE STALL BARN 8. |
| | PROPOSED DOMESTIC WELL | | |

Silva Dairy Farms Expansion Project



Photograph A. View of proposed freestall barn location at the North Dairy Facilities. View southeast (photograph taken 5/10/2023).



Photograph B. View of existing structures at the North Dairy Facilities. View southeast (photograph taken 5/10/2023).



Photograph C. View of the proposed wastewater storage pond location within existing cropland at the South Dairy Facility. View south (photograph taken 5/10/2023).



Photograph D. View of active dairy facilities including milking parlor at the South Dairy Facility. View west (photograph taken 5/10/2023).



Photograph E. View of area of proposed free stall barn adjacent to existing free stall barns at the South Dairy Facility. View northwest (photograph taken 5/10/2023).



Photograph F. View of existing free stall barns and wastewater storage ponds at the South Dairy Facility. View northwest (photograph taken 5/10/2023).



Photograph G. View of existing wastewater pond at the South Dairy Facility. View northeast (photograph taken 5/10/2023).



Photograph H. View of aquatic habitat and emergent wetland vegetation south of the existing wastewater pond facilities at the South Dairy Facility. View south (photograph taken 5/10/2023).



Photograph I. View of irrigation canal located adjacent to the eastern and southern perimeter of the existing crop field and proposed location of the wastewater storage pond. View southeast (photograph taken 5/10/2023).



Figure 5
Site Photographs
Silva Dairy Expansion Project

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 |
|----------------------------|--|
| <p>Program NR-F</p> | <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> |
| <p>Program NR-G</p> | <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> |
| <p>Program NR-I</p> | <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:
Project Code: 2023-0093109
Project Name: Silva Dairy Farm Expansion

June 13, 2023

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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code 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

Project Code: 2023-0093109
Project Name: Silva Dairy Farm Expansion
Project Type: Restoration / Enhancement - Agricultural
Project Description: Dairy expansion
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.3105629,-120.93693405417409,14z>



Counties: Merced and Stanislaus counties, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 17 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 nitratooides exilis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. 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 |

BIRDS

| NAME | STATUS |
|---|------------|
| California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193 | 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. Your location does not overlap the critical habitat. 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. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076 | Threatened |
| Foothill Yellow-legged Frog <i>Rana boylei</i> Population: Central Coast Distinct Population Segment (Central Coast DPS) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5133 | Proposed Threatened |

INSECTS

| NAME | STATUS |
|---|------------|
| Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |
| Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. 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. Your location overlaps the critical habitat. 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. Your location overlaps the critical habitat. 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. Your location overlaps the critical habitat. 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. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5690 | Threatened |
| Fleshy Owl's-clover <i>Castilleja campestris ssp. succulenta</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8095 | Threatened |
| Hoover's Spurge <i>Chamaesyce hooveri</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3019 | Threatened |
| San Joaquin Valley Orcutt Grass <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5506 | Threatened |

CRITICAL HABITATS

There are 5 critical habitats wholly or partially within your project area under this office's jurisdiction.

| NAME | STATUS |
|--|--------|
| Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> https://ecos.fws.gov/ecp/species/8246#crithab | Final |
| Hoover's Spurge <i>Chamaesyce hooveri</i> https://ecos.fws.gov/ecp/species/3019#crithab | Final |
| Longhorn Fairy Shrimp <i>Branchinecta longiantenna</i> For information on why this critical habitat appears for your project, even though Longhorn Fairy Shrimp is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/4294#crithab | Final |
| Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> | Final |

| NAME | STATUS |
|---|--------|
| https://ecos.fws.gov/ecp/species/498#crithab | |
| Vernal Pool Tadpole Shrimp <i>Lepidurus packardi</i> https://ecos.fws.gov/ecp/species/2246#crithab | Final |

IPAC USER CONTACT INFORMATION

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APPENDIX C

CNDDDB QUERY RESULTS



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS > (Ingomar (3712028)< OR > Gustine (3712038)< OR > Newman (3712131)< OR > Howard Ranch (3712121)< OR > Hatch (3712048)< OR > Crows Landing (3712141)< OR > Turlock (3712047)< OR > Stevinson (3712037)< OR > San Luis Ranch (3712027))

| 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>Acipenser medirostris</i> pop. 1 green sturgeon - southern DPS | G2T1 S1 | Threatened None | AFS_VU-Vulnerable IUCN_EN-Endangered | 57 57 | 14 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| <i>Agelaius tricolor</i> tricolored blackbird | G1G2 S2 | None Threatened | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern | 40 346 | 955 S:55 | 3 | 1 | 1 | 0 | 8 | 42 | 39 | 16 | 47 | 6 | 2 |
| <i>Ambystoma californiense</i> pop. 1 California tiger salamander - central California DPS | G2G3T3 S3 | Threatened Threatened | CDFW_WL-Watch List IUCN_VU-Vulnerable | 70 243 | 1271 S:7 | 0 | 5 | 0 | 0 | 0 | 2 | 6 | 1 | 7 | 0 | 0 |
| <i>Anniella pulchra</i> Northern California legless lizard | G3 S2S3 | None None | CDFW_SSC-Species of Special Concern USFS_S-Sensitive | 90 126 | 386 S:4 | 0 | 0 | 1 | 1 | 0 | 2 | 3 | 1 | 4 | 0 | 0 |
| <i>Antrozous pallidus</i> pallid bat | G4 S3 | None None | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive | 70 70 | 420 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Ardea alba</i> great egret | G5 S4 | None None | CDF_S-Sensitive IUCN_LC-Least Concern | 75 75 | 43 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Ardea herodias</i> great blue heron | G5 S4 | None None | CDF_S-Sensitive IUCN_LC-Least Concern | 75 75 | 156 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch | G2T1 S1 | None None | Rare Plant Rank - 1B.2 SB_UCSC-UC Santa Cruz | 55 175 | 65 S:7 | 0 | 3 | 0 | 1 | 1 | 2 | 6 | 1 | 6 | 0 | 1 |
| <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 | 200 230 | 2011 S:2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 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>Atriplex cordulata</i> var. <i>cordulata</i> heartscale | G3T2 S2 | None None | Rare Plant Rank - 1B.2 BLM_S-Sensitive | 50 175 | 66 S:8 | 0 | 1 | 0 | 0 | 2 | 5 | 8 | 0 | 6 | 1 | 1 |
| <i>Atriplex depressa</i> brittlescale | G2 S2 | None None | Rare Plant Rank - 1B.2 | 95 175 | 60 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Atriplex minuscula</i> lesser saltscale | G2 S2 | None None | Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | | 52 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Atriplex persistens</i> vernal pool smallscale | G2 S2 | None None | Rare Plant Rank - 1B.2 | 55 100 | 41 S:10 | 0 | 0 | 0 | 0 | 1 | 9 | 10 | 0 | 9 | 1 | 0 |
| <i>Bombus crotchii</i> Crotch bumble bee | G2 S2 | None Candidate Endangered | IUCN_EN-Endangered | 100 100 | 437 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Branchinecta conservatio</i> Conservancy fairy shrimp | G2 S2 | Endangered None | IUCN_EN-Endangered | 72 88 | 53 S:7 | 2 | 1 | 0 | 0 | 0 | 4 | 2 | 5 | 7 | 0 | 0 |
| <i>Branchinecta longiantenna</i> longhorn fairy shrimp | G1 S2 | Endangered None | IUCN_EN-Endangered | 70 70 | 23 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| <i>Branchinecta lynchi</i> vernal pool fairy shrimp | G3 S3 | Threatened None | IUCN_VU-Vulnerable | 69 85 | 796 S:8 | 2 | 0 | 0 | 0 | 0 | 6 | 1 | 7 | 8 | 0 | 0 |
| <i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose | G5T3 S3 | Delisted None | CDFW_WL-Watch List | 50 80 | 19 S:3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 0 |
| <i>Buteo swainsoni</i> Swainson's hawk | G5 S4 | None Threatened | BLM_S-Sensitive IUCN_LC-Least Concern | 35 276 | 2561 S:65 | 8 | 29 | 1 | 0 | 0 | 27 | 19 | 46 | 65 | 0 | 0 |
| <i>Chloropyron molle</i> ssp. <i>hispidum</i> hispid salty bird's-beak | G2T1 S1 | None None | Rare Plant Rank - 1B.1 | 60 100 | 35 S:14 | 4 | 2 | 2 | 0 | 0 | 6 | 10 | 4 | 14 | 0 | 0 |
| <i>Circus hudsonius</i> northern harrier | G5 S3 | None None | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern | 50 90 | 54 S:3 | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 3 | 0 | 0 |
| <i>Cismontane Alkali Marsh</i> Cismontane Alkali Marsh | G1 S1.1 | None None | | 75 75 | 4 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. |
| Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh | G3 S2.1 | None None | | 75 85 | 60 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| Dipodomys heermanni dixonii Merced kangaroo rat | G4T2T3 S2 | None None | | 120 120 | 21 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 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 | 55 100 | 1427 S:17 | 2 | 14 | 1 | 0 | 0 | 0 | 9 | 8 | 17 | 0 | 0 |
| Eremophila alpestris actia California horned lark | G5T4Q S4 | None None | CDFW_WL-Watch List IUCN_LC-Least Concern | 200 225 | 94 S:3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 0 |
| Eryngium racemosum Delta button-celery | G1 S1 | None Endangered | Rare Plant Rank - 1B.1 | 50 85 | 26 S:14 | 2 | 5 | 2 | 1 | 1 | 3 | 12 | 2 | 13 | 1 | 0 |
| Eryngium spinosepalum spiny-sepaled button-celery | G2 S2 | None None | Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden | 70 170 | 108 S:3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 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 | 70 75 | 127 S:2 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 0 |
| Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest | G2 S2.1 | None None | | | 56 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| Lanius ludovicianus loggerhead shrike | G4 S4 | None None | CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened | 72 72 | 110 S:2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| Lasiurus cinereus hoary bat | G3G4 S4 | None None | IUCN_LC-Least Concern | 70 105 | 238 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| Lasiurus frantzii western red bat | G4 S3 | None None | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | 70 70 | 128 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>Lasthenia chrysantha</i> alkali-sink goldfields | G2 S2 | None None | Rare Plant Rank - 1B.1 | 45 75 | 55 S:3 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 2 | 1 | 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 | 30 30 | 111 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| <i>Lepidurus packardii</i> vernal pool tadpole shrimp | G4 S3 | Endangered None | IUCN_EN-Endangered | 65 88 | 330 S:11 | 2 | 2 | 1 | 0 | 0 | 6 | 5 | 6 | 11 | 0 | 0 |
| <i>Linderiella occidentalis</i> California linderiella | G2G3 S2S3 | None None | IUCN_NT-Near Threatened | 70 85 | 508 S:3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 0 |
| <i>Monardella leucocephala</i> Merced monardella | GX SX | None None | Rare Plant Rank - 1A | 115 115 | 3 S:1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| <i>Myotis yumanensis</i> Yuma myotis | G5 S4 | None None | BLM_S-Sensitive IUCN_LC-Least Concern | 70 70 | 265 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Myrmosula pacifica</i> Antioch multilid wasp | GH SH | None None | | 105 105 | 4 S:1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| <i>Navarretia prostrata</i> prostrate vernal pool navarretia | G2 S2 | None None | Rare Plant Rank - 1B.2 | 65 90 | 61 S:7 | 3 | 0 | 0 | 0 | 0 | 4 | 6 | 1 | 7 | 0 | 0 |
| <i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS | G5T2Q S2 | Threatened None | AFS_TH-Threatened | | 31 S:2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 0 | 0 |
| <i>Perognathus inornatus</i> San Joaquin pocket mouse | G2G3 S2S3 | None None | BLM_S-Sensitive IUCN_LC-Least Concern | 175 600 | 140 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Pogonichthys macrolepidotus</i> Sacramento splittail | G3 S3 | None None | AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | 40 40 | 15 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Puccinellia simplex</i> California alkali grass | G2 S2 | None None | Rare Plant Rank - 1B.2 BLM_S-Sensitive | 60 60 | 80 S:1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |



Summary Table Report

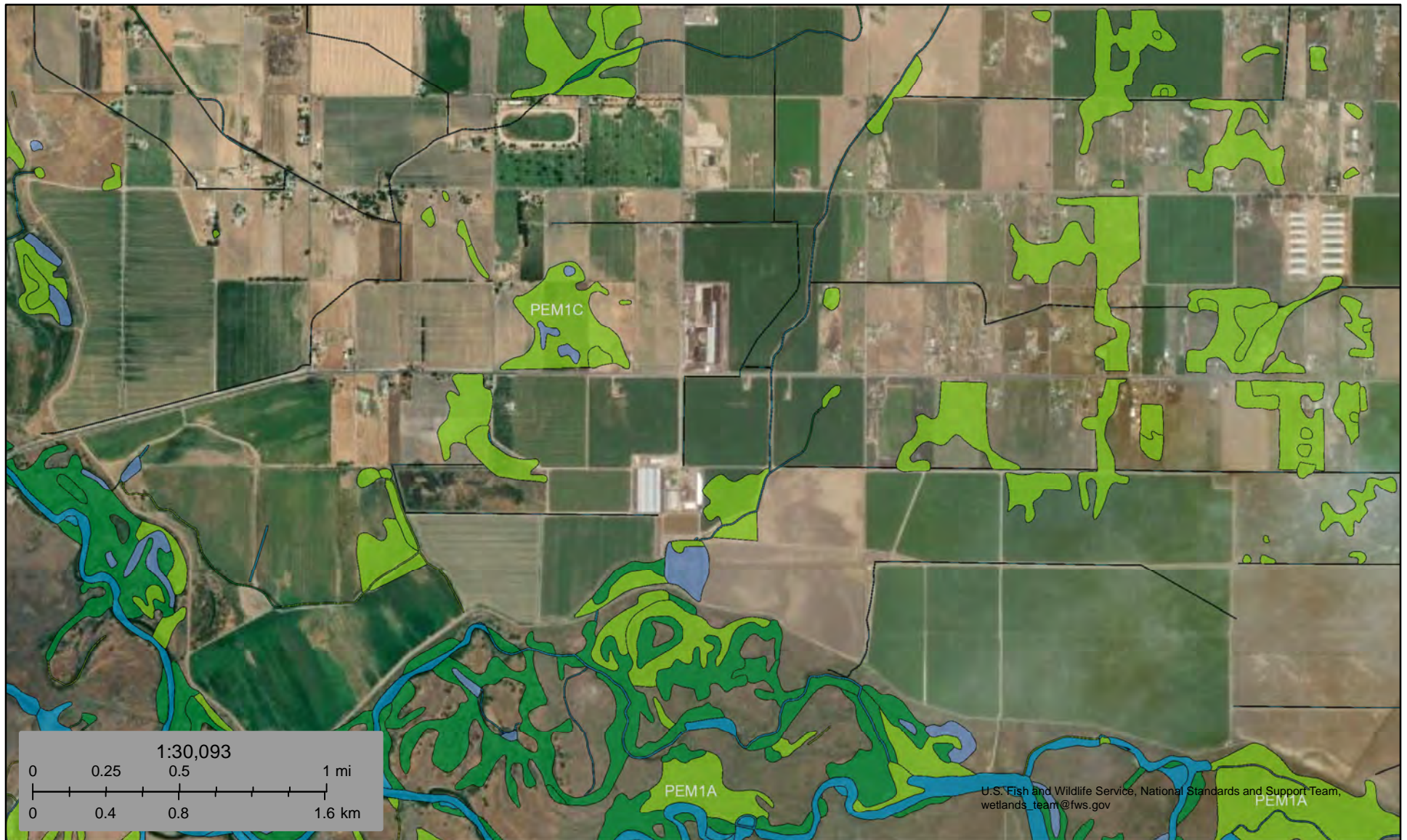
California Department of Fish and Wildlife California Natural Diversity Database



| 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>Rana boylei</i> pop. 4 foothill yellow-legged frog - central coast DPS | G3T2 S2 | Proposed Threatened Endangered | BLM_S-Sensitive USFS_S-Sensitive | 438 438 | 178 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Rana draytonii</i> California red-legged frog | G2G3 S2S3 | Threatened None | CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable | 200 200 | 1685 S:1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| <i>Sagittaria sanfordii</i> Sanford's arrowhead | G3 S3 | None None | Rare Plant Rank - 1B.2 BLM_S-Sensitive | | 143 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Spea hammondi</i> western spadefoot | G2G3 S3S4 | None None | BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened | 72 257 | 1430 S:10 | 1 | 2 | 0 | 0 | 0 | 7 | 8 | 2 | 10 | 0 | 0 |
| <i>Stuckenia filiformis ssp. alpina</i> northern slender pondweed | G5T5 S2S3 | None None | Rare Plant Rank - 2B.2 | 85 85 | 21 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Sycamore Alluvial Woodland</i> Sycamore Alluvial Woodland | G1 S1.1 | None None | | 200 200 | 17 S:1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| <i>Taxidea taxus</i> American badger | G5 S3 | None None | CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern | 70 85 | 594 S:3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 0 |
| <i>Thamnophis gigas</i> giant gartersnake | G2 S2 | Threatened Threatened | IUCN_VU-Vulnerable | 70 95 | 373 S:23 | 0 | 2 | 3 | 0 | 0 | 18 | 13 | 10 | 23 | 0 | 0 |
| <i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis | G4T3 S1 | None None | Rare Plant Rank - 2B.1 | 85 85 | 12 S:2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 |
| <i>Valley Sacaton Grassland</i> Valley Sacaton Grassland | G1 S1.1 | None None | | 75 85 | 9 S:3 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 |
| <i>Valley Sink Scrub</i> Valley Sink Scrub | G1 S1.1 | None None | | 65 85 | 29 S:2 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 0 |
| <i>Vireo bellii pusillus</i> least Bell's vireo | G5T2 S3 | Endangered Endangered | | 120 120 | 505 S:1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| <i>Vulpes macrotis mutica</i> San Joaquin kit fox | G4T2 S3 | Endangered Threatened | | 73 330 | 1020 S:11 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 11 | 0 | 0 |





APPENDIX D

NATIONAL WETLAND INVENTORY



August 17, 2023

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | 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. Conservation Biology 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: Frontiers in Ecology and the Environment (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. Ecosphere 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. |