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## APPENDIX E

### Biological Resources Technical Appendix

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## Report of Findings

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### **Biological Resources Reconnaissance Survey and CEQA Analysis** Toste Dairy Expansion Project

Location:  
609 Santa Fe Grade  
Newman, CA 95360  
37°17'50.90"N, 120°59'17.73"W  
Permit Sought: Conditional Use Permit No. CUP19-001



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Dates of Biological Resources Reconnaissance Surveys: September 27, 2019  
Date of Report: January 20, 2020

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# **1 SUMMARY**

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The existing Toste Dairy is located on approximately 28± acres of an existing farm totaling approximately 391 acres in an unincorporated area of Merced County near the Merced and Stanislaus County line. Approximately 330 acres of the Dairy are in crop production and for manure process water and/or solid manure disposal. The applicant proposes to increase the present herd of dairy cattle by 1,300 cows for a total of 5,950 animals. The proposed project includes construction of two freestall barns, two shade barns, a mechanical separator and manure separator pad, the addition of a wastewater retention pond, and the expansion/modification of the existing milking parlor and feed storage area.

A reconnaissance-level biological survey was conducted on September 27, 2019 by biologists from Padre Associates, Inc. (Padre). A number of special-status species, including Swainson's hawk, giant garter snake, tricolored blackbird, and western pond turtle have been reported within approximately five miles of the Toste Dairy. Other raptors and migratory birds are known to forage in the area.

## **2 INTRODUCTION**

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### **2.1 PURPOSE OF THE STUDY**

The purpose of this report is to describe the findings of a biological resources reconnaissance survey and California Environmental Quality Act (CEQA) Analysis conducted for the Toste Dairy Expansion in rural Merced County, California, north of the City of Gustine and southwest of the City of Newman. The Biological Reconnaissance Survey was conducted on September 27, 2019 to describe and map biological resources at the project site and surrounding areas and determine whether suitable habitat is present for special-status or sensitive species. The CEQA Analysis included a review of current biological resource databases, previous studies, and current conditions to evaluate the project's potential impact to biological resources pursuant to CEQA standards.

### **2.2 APPLICABLE LAWS AND REGULATIONS**

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

## **SPECIAL-STATUS PLANT AND WILDLIFE SPECIES**

According to CEQA Guidelines §15380, a special-status species is a plant or animal species that is:

- Listed endangered, threatened, or a candidate species under the federal Endangered Species Act (FESA);
- Listed endangered, threatened, or a candidate species under the California Endangered Species Act (CESA);
- Listed as a species of special concern by the California Department of Fish and Wildlife (CDFW) or the Department of Forestry (CDF);
- 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 is in jeopardy due to loss or change in habitat.

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

### **FEDERAL**

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

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

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

Migratory Bird Treaty Act (MBTA) of 1918. The MBTA protects migratory birds and their nests. Under the Act, it is unlawful to take, import, export, possess, buy, sell, purchase, or barter any migratory bird. Feathers or other parts, nests, eggs, and products made from migratory birds are also covered by the MBTA. Take is defined as pursuing, hunting, shooting, poisoning, wounding, killing, capturing, trapping, or collecting.

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.

## **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 or other wetland areas. 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.



## 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 Toste Dairy is located on 28± acres of an existing farm totaling approximately 391 acres in unincorporated Merced County near the Merced/Stanslaus County line. The project dairy site is located near the southwest corner of Santa Fe Grade and Brazo Road. The project's location is within the central California region (see Figures 1 and 2). The project cropland application area consists of 330± acres located on portions of nine parcels, four of which are leased by the dairy operator. The project site is located in Section 28, Township 7 South, Range 9 East, Mount Diablo Base and Meridian: 37°17'50.90"N, 120°59'17.73" W.

There is an additional dairy facility south of the Toste Dairy located at Merced County APN 054-100-030, 28024 Preston Road, at the intersection of Preston Road and Hunt Road. This facility, the Preston Road South Feedlot, is currently used as a feedlot for the Toste Dairy and houses heifers and young stock. The Preston Road South Feedlot is located adjacent to and between land application Fields 4 and 5 associated with the Toste Dairy.

### **2.4 PROJECT DESCRIPTION**

**2.4.1 EXISTING FACILITIES.** The existing Toste Dairy facilities include the following:

- freestall barns
- shade barns
- milking barn
- shop
- manure storage area
- open corrals
- feed storage area
- two wastewater storage ponds
- feed barn

There are approximately 146,020 square feet (sq-ft) of structures that comprise the existing active dairy facilities.

Approximately 330 acres of the project area are currently used for the production of crops and the application of manure process water and/or solid manure. Of these cropped acres, approximately 55 acres are located on four parcels leased by the dairy operator. Field application of dry manure and wastewater would include broadcast

spreading/incorporation and surface irrigation via pipeline. The remaining project acres consist of field roads and ancillary farm uses.

As of January 2019, there were approximately 1,500 milk cows and a total of 4,650 animals at the dairy (see Table 1). The predominant breed of cows is Holstein. Dry manure and almond shells are used for animal bedding.

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

Dry manure is removed from corrals four times a year. Water is added throughout the year to wastewater ponds in order to dilute solids, which are pumped out during irrigations. If necessary, the storage ponds are agitated and pumped into slurry wagons or directly excavated for spring and/or fall application. If excavation is required, the equipment operator is instructed to remain 6-12 inches from the floor of the pond in order not to disturb the soil liner. Manure is stored at the dairy in stockpiles before use as bedding or fertilizer. Solids are removed annually, typically after fall harvest. Dry manure is currently applied to several fields. As reflected in the Nutrient Management Plan (NMP), approximately 3,500 tons of solid manure (approximately 31 percent of dry manure) is exported and applied to off-site fields not owned by the dairy operator.

**2.4.2 PROPOSED EXPANSION.** The project sponsor has applied for a new Conditional Use Permit (CUP19-001) from Merced County to expand the existing dairy beyond its current permitted capacity so that the modified dairy would house 2,500 milk cows, 500 dry cows, and 2,950 support stock (see Table 1). This would represent an increase of 1,300 animals from existing numbers.

<b>Table 1</b> <b>Existing and Proposed Herd at the Toste Dairy</b>								
	<b>Milk Cows</b>	<b>Dry Cows</b>	<b>Bred Heifers (15-24 mo.)</b>	<b>Heifers (7-14 mo.)</b>	<b>Calves (4-6 mo.)</b>	<b>Calves (0-3 mo.)</b>	<b>Mature Bulls</b>	<b>Total Animals</b>
Existing	1,500	450	0	2,500	200	0	0	4,650
Proposed	2,500	500	0	2,550	400	0	0	5,950
<b>Change</b>	<b>1,000</b>	<b>150</b>	<b>0</b>	<b>50</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>1,300</b>

Note: This evaluation considers maximum buildup.

Source: Project Applicant, January 2019.

The proposed project would include the construction of supporting buildings and structures, including two freestall barns, approximately 126,750 square feet and 94,250

square feet; two shade or “Saudi” barns, approximately 63,000 square feet and 84,000 square feet; expansion of approximately 7,500 square feet to the existing milking parlor; modification of the feed storage area; installation of a mechanical separator and manure separator pad; and the addition of a wastewater retention pond when incremental herd increases require more wastewater storage. With implementation of the proposed dairy expansion, new structures would consist of approximately 375,500 square feet of construction. Approximately 42,440 square feet of existing buildings would be removed. There would be 20,000 cubic yards of cut and fill for the proposed buildings, and 30,000 cubic yards of cut and fill for the proposed pond. Cut and fill would be balanced onsite.

With construction of the proposed facilities, approximately 14 acres of cropped acreage would be converted to active dairy facilities. The remaining 316± acres would continue to be cropped with dairy feed crops. Field application of dry manure and wastewater would include surface irrigation and broadcast spreading/incorporation. The number of silage piles would remain at four.

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

The Preston Road South Feedlot and the associated wastewater pond would be incorporated into the Toste Dairy Expansion operations. No changes to the facilities at this location would occur, and dry cows, heifers, and calves would continue to be housed at the feedlot. The milking parlor would not be used.

The Canal School Road West Feedlot would not house any animals, though the cow housing would remain. Any plan to repopulate the feedlot would require a permit under the Bovine Feedlot Order as a separate entity from the Toste Dairy. The existing septic tank serving the milking parlor at this facility would be destroyed in accordance with Merced County Division of Environmental Health requirements.

Stormwater runoff from roofed areas would continue to be routed to the wastewater pond or adjacent fields. Wastewater would continue to be mixed with irrigation water and applied to the land.

Solid manure that accumulates within corrals would continue to be removed four times per year. With the proposed dairy expansion, dry manure would continue to be stockpiled on site at the existing dry manure storage area. Dry manure would be used for bedding or sold and hauled off site weekly for use as fertilizer and soil amendments. As reported in the NMP, exported solid manure applied to off-site agricultural fields not owned by the project applicant would increase from 3,500 tons (currently) to 25,000 tons with the proposed expansion (approximately 66 percent of previously separated solids). While the exact location of these off-site cropland parcels may vary throughout

operations, the disposal of manure at off-site locations and the acreage necessary to properly dispose of manure liquids and solids are accounted for in the project NMP.

Operations at the dairy would continue to occur 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. With implementation of the proposed project, the number of employees would increase from 5 to approximately 7 workers.

### 3 METHODS AND SURVEY LIMITATIONS

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#### 3.1 METHODS

Padre Associates, Inc. (Padre) evaluated the potential biological resources impacts of the Toste Dairy Expansion Project through a review of available data and a site visit. Prior to the site visit, Padre conducted a query of California Natural Diversity Database (CNDDDB) for the USGS topographic quadrangle including the project area (Gustine) and for the surrounding eight USGS topographic quads (Stevinson, Newman, Hatch, Turlock, Crow's Landing, Ingomar, San Luis Ranch, and Howard Ranch) (CDFW, 2019). The CNDDDB record search reports list special-status species and habitat locations, and provide specific information (e.g., state and federal protection status; global and state rank; CDFW listing status; rare plant status; specific location data; existence status; dates last observed; habitat preferences and other notes) for each recorded occurrence (see Appendix C).

Padre also conducted a query of the California Native Plant Society's Electronic Inventory (CNPS, 2019) for the same quadrangles to provide information on additional plant species of concern that may occur within the project site and surrounding vicinity. A species list was obtained from the USFWS website for the Gustine quadrangle to provide information on federally listed species that have the potential to occur in the vicinity of the proposed project. A query of the USFWS National Wetland Inventory (NWI) Map for the Gustine quadrangle was conducted for information regarding known wetlands in the project area.

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

Padre conducted a biological reconnaissance survey of the project site on September 27, 2019. The purpose of the survey was to characterize general biological resources supported by the project site and evaluate the potential for sensitive biological resources to occur on the site and be affected by implementation of the proposed project. The surveys included evaluating primary vegetation cover types, assessing habitat suitability for known local wildlife, and recording observed plant and animal species (Table 2). The survey was conducted during the day between 12:30 p.m. and 2:30 p.m. The weather was warm with a light breeze. The reconnaissance survey involved surveying the entire site, including on-foot and windshield evaluations of principal facilities and the project site. Berms along roadsides and all culverts found by the biologists during the reconnaissance surveys were checked for signs of use by

burrowing owl, American badger, and/or San Joaquin kit fox. Dominant flora and fauna were noted (when present) and identified to the lowest possible taxon.

### **3.2 LIMITATIONS**

The reconnaissance-level field survey was conducted in Fall after many plants have bloomed. The survey was conducted at a reconnaissance level, not a focused or protocol survey level. The survey lasted approximately two hours in mid-day and, therefore, did not include dawn or dusk surveys or extended observations.

## **4 SURVEY RESULTS**

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### **4.1 PHYSICAL CHARACTERISTICS**

The existing Toste Dairy is located on a 28-acre portion of a 391-acre farm in an unincorporated area of Merced County. Operations occur within a relatively flat and partially graded area on bare and exposed soil within an existing dairy. Section 2.4.1 details the existing infrastructure on the site.

### **4.2 VEGETATION AND WILDLIFE**

The 28-acre active dairy portion of the site is denuded of vegetation due to the trampling by the dairy herd. Surrounding the dairy on all sides are agricultural fields that are used for corn production. There are several water canals, laterals, and drains in the project vicinity, including the Newman Wasteway along the western boundary of the project site and project fields. The North Grasslands Wildlife Area China Island Unit, operated by the California Department of Fish and Wildlife, is located approximately 0.4 miles north of the project site. Additionally, the project site is located within the Grasslands Focus Area Boundary. There are extensive bulrush (*Schoenoplectus acutus*) wetlands in the Grasslands Ecological Area (GEA) to the north of the site.

Dividing portions of the existing dairy from the expansion area to the north is a short, sloped berm with a small ditch along its base. At the time of the survey, there was no water and primarily ruderal plant species in the ditch. The NWI query identified a riverine feature on the site. During field surveys this feature appeared to be running through underground piping and has no above ground signature aside from a berm with occasional valve boxes.

As shown in Table 2, wildlife species observed within or adjacent to the dairy included primarily terrestrial and some wetland species. No ground squirrel colonies or other burrows were observed in concentrations; however, a few scattered burrows were found along the berm. These burrows showed signs of weathering and were therefore likely not active and would not provide good habitat for burrowing owl or San Joaquin kit fox.

The climate in the project vicinity is hot and dry in the summer, and cold and moist in the winter. Between winter rains are periods of cloudy, foggy, or sunny weather. The average annual maximum temperature is 77.3° F, peaking in July at 97.3 ° F. The average annual minimum temperature is 47.1° F, with the lowest being in December at 35.7 ° F (Western Regional Climate Center). The primary soil types on the site are Woo clay loam, wet, 0 to 2 percent slopes and Dosamigos clay loam, partially drained.

**Table 2**  
**Wildlife Species Recorded in Project Vicinity**

Common Name	Scientific Name
<b>Birds</b>	
Rock pigeon	<i>Columba livia</i>
Eurasian collared-dove	<i>Streptopelia decaocto</i>
Mourning dove	<i>Zenaida macroura</i>
Killdeer	<i>Charadrius vociferus</i>
Least sandpiper	<i>Calidris minutilla</i>
Western sandpiper	<i>Calidris mauri</i>
Great egret	<i>Ardea alba</i>
White-faced Ibis	<i>Plegadis chihi</i>
Turkey vulture	<i>Cathartes aura</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
American kestrel	<i>Falco sparverius</i>
Black phoebe	<i>Sayornis nigricans</i>
American crow	<i>Corvus brachyrhynchos</i>
Cliff swallow	<i>Petrochelidon pyrrhonota</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Western meadowlark	<i>Stenella neglecta</i>
European starling	<i>Sturnus vulgaris</i>
House sparrow	<i>Passer domesticus</i>
House finch	<i>Haemorhous mexicanus</i>
American goldfinch	<i>Spinus tristis</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>

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

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

- A review of previous studies;
- Informal consultation with the USFWS via the Information, Planning, and Consultation system (IPaC) (<https://ecos.fws.gov/ipac/project/5GD2WMLTJRE2XBPGO726F64DHM>); and

- Queries of the CDFW's California Natural Diversity Database (CNDDDB), Biogeographic Information and Observation System (BIOS), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants database (CDFW, 2019; CNPS, 2019).

To determine what special-status species occurred in the vicinity of the project area, the CNDDDB was queried spatially within a 10-mile radius around the project site. Species recorded within 10 miles that may occur in similar habitat were also included in the analyses. The species occurrence map for the area immediately surrounding the project site is included in Figure 3. The species identified from these data sources were further assessed for their potential to occur within the project site based upon previously documented occurrences, their habitat requirements, and the quality and extent of any available habitat within the site. The summary of this analysis is presented in Table 3.

The CNDDDB and CNPS lists for the 10 mile (nine quadrangle) area, and the USFWS Species List for the Gustine quadrangle, identified six natural communities, 17 special-status plants, and 35 special-status wildlife species (five invertebrates, three fishes, four amphibians, four reptiles, 14 birds, and five mammals) (Appendix B and C and Table 3).

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 five sensitive natural communities recorded in the area (Cismontane Alkali Marsh, Coastal and Valley Freshwater Marsh, Valley Sacaton Grassland, Valley Sink Scrub, and Sycamore Alluvial Woodland) do not occur on the project site or in the immediate vicinity of the project site. Neither special-status plants nor habitat that would support special-status plants occur on the project site. The entire site is or was in the recent past managed dairy facilities and/or crop fields.

Special-status wildlife species that may occur on the site from time to time include tricolored blackbird, American badger and Swainson's hawk. The San Joaquin kit fox is known to occur at the Merced National Wildlife Refuge, which is approximately 19 miles southeast of the site, and the species has been reported within 2.1 miles of the site at the San Luis National Wildlife Refuge to the east. No sign of San Joaquin kit fox was observed, but they may occur onsite as transient foragers. Although a few burrows were observed on site, it is likely that the project site could support small mammals that provide prey for San Joaquin kit fox, American badger, and Swainson's hawk. Agricultural access roads, open or fallow fields, and irrigation ditches and canals provide an important corridor for the movements of these mammals. There was no vernal pool habitat that could support listed vernal pool invertebrates observed onsite during the reconnaissance survey.

The project site may provide occasional foraging opportunities for additional sensitive



wildlife species including various raptors and migratory birds that are protected by the Migratory Bird Treaty Act. The adjacent North Grasslands Wildlife Area, China Island Unit provides habitat for migratory waterfowl and shorebirds. This area provides potential habitat for nesting bird species such as ducks, short-eared owls, northern harriers, and pheasants, and upland foraging and grazing wildlife species such as raptors, geese, cranes, and egrets.

The site is within the Grasslands Focus Area (GFA) and the Grasslands Ecological Area (GEA). The GEA is comprised of the Grasslands Wildlife Management Area (WMA) with the addition of several state and federal wildlife areas that are outside of the Grasslands WMA. The project site is also 0.4 miles south of the North Grasslands Wildlife Area, China Island Unit, operated by the CDFW. It is approximately 2.1 miles west of the San Luis National Wildlife Refuge (USFWS).

Merced County 2030 General Plan Policy LU-1.13 restricts development within a half mile of State or Federal wildlife refuges within the GEA, such as the North Grasslands Wildlife Area, if the County determines that there are unmitigated impacts to natural resources or habitat. In addition, Policy LU-10.14 (see Appendix A) requires the County to consult with the Grassland Resources Regional Working Group (GRRWG) during project review for projects located within the GFA. Consultation with the GRRWG has been initiated through the CEQA process during the Preliminary Application Review (PAR), prior to circulation of the Initial Study. A comment letter was received from the Grassland Water District (GWD) on February 28, 2019. The primary concern outlined in the letter was nighttime lighting associated with the dairy expansion and its potential adverse effects on birds in nearby avian habitat within the GEA.

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

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<b>SPECIAL-STATUS PLANTS</b>			
<i>Astragalus tener tener</i> Alkali milk-vetch	1B.2	Plays, valley and foothill grassland (adobe soils) and vernal pools. 3 to 200 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	1B.2	Chenopod scrub, valley and foothill grassland, meadows, alkaline flats and scalds in the Central Valley. Sandy soils. Found regionally in alkali grassland. 3 to 500 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex coronata</i> ssp. <i>coronata</i> Crownscale	4.2	Chenopod scrub, valley and foothill grassland, and vernal pools. Alkaline and often clayey soils. 3 to 1,000 ft.	<b>Absent.</b> There is no 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 scrubs, meadows, seeps, playas, and vernal pool in alkaline soils. 3 to 1,500 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Atriplex minuscula</i> Lesser saltscale	1B.1	Chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy alkaline soils. 60 to 350 ft. Found locally in heavily alkaline grassland, with a white crust of soil salts.	<b>Absent.</b> There is no 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. 30 to 380 ft.	<b>Absent.</b> There is no 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Chloropyron mollis</i> ssp. <i>hispidum</i> Hispid bird's-beak	1B.1	Meadows, playas, valley and foothill grassland. In damp alkaline soils, especially meadows and sinks. Found regionally in a wetland with saltgrass. 33 to 500 ft.	<b>Absent.</b> There is no habitat that would support this plant on the project site. The proposed project would not adversely impact this species.
<i>Centromadia parryi</i> ssp. <i>rudis</i> Parry's rough tarplant	4.2	Valley and foothill grasslands and vernal pools. Alkaline and vernal mesic soils. 3 to 330 ft.	<b>Absent.</b> There is no habitat that would support this plant on the project site. The proposed project would not adversely impact this species.
<i>Eryngium racemosum</i> Delta button-celery	SE 1B.1	Riparian scrub in vernal mesic clay depressions. 10 to 100 ft.	<b>Absent.</b> There is no 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/foothill grassland, Vernal pool. 260 to 850 ft.	<b>Absent.</b> There is no 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	Chenopod scrubs, meadows, seeps, playas, and vernal pool in alkaline soils. 3 to 1,500 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Hordeum intercedens</i> Vernal barley	3.2	Coastal dunes, coastal scrub, saline flats and depressions in valley and foothill grasslands, and vernal pools. 15 to 3,280 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	1B.1	Marshes, swamps (coastal salt), playas, and vernal pools. 3 to 4,000 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Myosurus minimus</i> ssp. <i>apus</i> Little mouseltail	3.1	Valley/foothill grasslands, vernal pools (alkaline). 65 to 2,100 ft.	<b>Absent.</b> There is no 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Navarretia prostrata</i> Prostrate vernal pool navarretia	1B.1	Mesic coastal scrub, meadows, seeps, valley/foothill grassland, vernal pools. 50 to 4,000 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes and ditches. 0 to 2,000 ft.	<b>Absent.</b> There is no 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> Slender-leaved pondweed	2B.2	Found in freshwater wetlands and riparian habitats between 900 and 6,900 ft.	<b>Absent.</b> There is no habitat to support this plant on the project site. The proposed project would not impact this species.
<b>SPECIAL-STATUS INVERTEBRATES</b>			
<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.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	Endemic to the grasslands of the central valley, central coast mountains and south coast mountains, in astatic rain-filled pools. Regionally inhabits small, clear-water sandstone depression pools and grassed swale, earth slump or basalt-flow depression pools.	<b>Absent.</b> There is no habitat to support this species 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Brachinecta 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.	<b>Absent.</b> There is no habitat to support this species on the project site. 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 plants are obligate hosts for the VELB, providing a source of food and broodwood.	<b>Absent.</b> There is no habitat to support this species on 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.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<b>SPECIAL-STATUS FISH</b>			
<i>Hypomesus transpacificus</i> Delta smelt	FT, SE	Endemic to the upper Sacramento/San Joaquin Delta, it mainly inhabits the freshwater-saltwater mixing zone of the estuary, except during its spawning season, when it moves into freshwater during the early spring months from March until May.	<b>Absent.</b> There is no habitat to support this species 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Oncorhynchus mykiss</i> Central Valley steelhead Critical Habitat	FT	Sacramento and San Joaquin River systems, Sacramento-San Joaquin Delta, and San Francisco Bay	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	CSC	Slow moving rivers, lakes, and sloughs in the Sacramento San Joaquin valleys.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<b>SPECIAL STATUS AMPHIBIANS</b>			
<i>Ambystoma californiense</i> California tiger salamander	FT, ST	Needs underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	<b>Absent.</b> There is no habitat to support this species on 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.	<b>Absent.</b> There is no habitat to support this species 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Spea hammondi</i> Western spadefoot toad	CSC	Occurs primarily in grassland habitats; can be found in valley foothill hardwood woodlands. Vernal pools essential for breeding and egg laying.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Lithobates pipiens</i> Northern leopard frog	CSC	Inhabits grasslands, wet meadows, bogs, marshes, and reservoirs. Generally, prefers permanent water with abundant aquatic vegetation	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<b>SPECIAL STATUS REPTILES</b>			
<i>Emys marmorata</i> Western pond turtle	CSC	Ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Needs basking sites and suitable upland habitat (sandy banks or grassy open fields) for egg laying.	<b>Absent.</b> The closest occurrences to the project site are approximately 1.7 miles away (Occ. #275, #313). There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Gambelia sila</i> Blunt-nosed leopard lizard	FE SE, FP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Anniella pulchra pulchra</i> Silvery legless lizard	CSC	In San Joaquin Valley south to Baja California in moist, warm, and loose soils with vegetative cover.	<b>Absent.</b> There is no habitat to support this species 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 Toste Dairy Project Area**

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Thamnophis gigas</i> Giant garter snake	FT ST	Freshwater marshes and streams. Has adapted to drainage canals and irrigation ditches.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<b>SPECIAL STATUS BIRDS</b>			
<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.	<b>Possible Foraging and Nesting.</b> There are approximately five small trees located approximately 800 feet from the proposed facility area. These trees could provide nesting habitat for Cooper's hawk but is not ideal due to the sparse cover. The proposed project is unlikely impact this species.
<i>Accipiter striatus</i> Sharp-shinned hawk	WL	Breeds in woodland habitat. Typically forages in areas of dense cover where it can ambush its prey.	<b>Possible Foraging and Nesting.</b> There are approximately five small trees located approximately 800 feet from the proposed facility area. These trees could provide nesting habitat for sharp-shinned hawk but is not ideal due to the sparse cover. The proposed project is unlikely impact this species.
<i>Agelaius tricolor</i> Tricolored blackbird	CSC	Nesting colony requires open water, protected nesting substrate and foraging area with insect prey within a few km of the colony.	<b>Possible Foraging and Nesting.</b> The closest recorded occurrence is located approximately 0.3 miles east of the project site and is from 1992 (Occ. #982). Although this species was not observed during the site survey, the croplands onsite could provide suitable nesting habitat for tricolored blackbird.. Approximately 14 acres of potential breeding and foraging habitat will be impacted by this project..
<i>Aquila chrysaetos</i> Golden eagle	FP BCC	Forages over open grasslands, savannahs, and deserts. Nests in large trees or cliffs.	<b>Possible Foraging.</b> The closest recorded occurrence is located approximately 9 miles west of the project site and is from 2001 (Occ. #85). This species is very uncommon in the vicinity of the project site. There is no habitat to support this species breeding on the project site, although the species could forage. The proposed project would not likely impact foraging by this species.



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

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Ardea alba</i> Great egret	CDFS (Rookery)	Nests high in the canopy of trees often over water. The species sensitive listing status is due to its colonial nesting behavior known as "rookeries". Rookeries are protected.	<b>Likely to Forage.</b> This species is common in the area and could be observed foraging near the project site along irrigation canals. There is no suitable nesting habitat on or adjacent to the project site; therefore, the Project would not impact a rookery.
<i>Ardea Herodias</i> Great blue heron	CDFS (Rookery)	Typically nests in large groups in large trees or shrubs, often near water. The species sensitive listing status is due to its colonial nesting behavior known as "rookeries". Rookeries are protected.	<b>Likely to Forage.</b> This species is common in the area and could be observed foraging near the project site along irrigation canals. There is no suitable nesting habitat on or adjacent to the project site; therefore, the Project would not impact a rookery.
<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.	<b>Unlikely Foraging and Nesting.</b> The closest recorded occurrence is located approximately 9.1 miles southwest of the project site and is from 1993 (Occ. #199). There are a couple suitable breeding or non-breeding burrows present within 500 feet 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.	<b>Possible Foraging.</b> The closest recorded occurrence is located approximately 3.3 miles northeast of the project site and is from 1984 (Occ. #20). Approximately 14 acres of potential foraging habitat will be impacted by this project.
<i>Buteo swainsoni</i> Swainson's hawk	ST, BCC	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	<b>Likely foraging/Possible Nesting.</b> The closest nesting occurrence is in a eucalyptus tree approximately 1.1 miles from the project site (Occ. #2451) last observed in 2018. Swainson's hawk's are likely to forage on project area croplands if the crops are in an appropriate condition to allow foraging (harvested or sparse enough to allow flight). Approximately 14 acres of potential foraging habitat will be impacted by this project.

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

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Circus cyaneus</i> Northern harrier	CSC	Forages and nests in freshwater and brackish marshes and their adjacent grasslands.	<b>Possible Foraging.</b> This species is common in the area and could use the project area for foraging. Approximately 14 acres of potential foraging habitat will be impacted by this project. There is no suitable nesting habitat on or adjacent to the project site.
<i>Elanus leucurus</i> White-tailed kite	FP	Rolling foothills / valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Forages over grasslands, marshes, and oak savannas close to isolated, dense-topped trees for nesting and perching.	<b>Possible Foraging and Nesting.</b> There are approximately five small trees located approximately 800 feet from the proposed facility area. These trees could provide nesting habitat for white-tailed kite but is not ideal due to the sparse cover. The proposed project is unlikely impact this species.
<i>Eremophila alpestris actia</i> California horned lark	WL	Resident populations of horned larks are found in the stubble, grass, and fallow lands near cultivated fields. The majority of the birds live in the wide expanses of the deserts, foothills, and dry grasslands that encircle the farming areas.	<b>Possible Foraging.</b> This species could forage within harvested fields during the non-breeding season. The proposed project would have minimal impact this species.
<i>Falco mexicanus</i> Prairie falcon	WL, BCC	Inhabits open hills, grasslands, and deserts typically avoiding forested land. Nest sites are typically located on cliffs with a protective overhanging rock. Seldom found nesting in trees.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Lanius ludovicianus</i> Loggerhead shrike	CSC BCC	Open habitats like prairies and grasslands, with sparse perches	<b>Possible Foraging.</b> This species is relatively common in the area and could use the project area for foraging. The closest CNDDDB occurrence is approximately 5.6 miles southeast of the project site and is from 2014 (Occ. #110). The project would not impact this species.
<b>SPECIAL STATUS MAMMALS</b>			

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

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<i>Lasiurus blossevillei</i> Western red bat	CSC	Range from western Canada to Central America. Roosts only in the foliage of riparian trees, primarily walnuts, oaks, willows, cottonwoods, and sycamores. Feeds on insects.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Antrozous pallidus</i> Pallid bat	CSC	Typically inhabits grasslands, shrublands, woodlands, and coniferous forests in open, dry habitats that contain rocky areas for roosting. They are a year-round resident in most of their range, and hibernate in winter near their summer roost. Day roosts are usually rock crevices, tree hollows, mines, caves and a variety of human-made structures. Tree roosting occurs in conifer snags, hollows of redwoods, and cavities in oaks.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Dipodomys nitratoideis exilis</i> Fresno kangaroo rat	FE, SE	Historically found in grassland and chenopod scrub communities on the San Joaquin Valley floor from the Merced River to the north and Tulare Lake to the south.	<b>Absent.</b> There is no habitat to support this species on the project site. The proposed project would not impact this species.
<i>Taxidea taxus</i> American badger	CSC	Most abundant in drier open stages of most shrub, forest and herbaceous habitats, with friable soils. Need sufficient food, friable soils and open, uncultivated ground.	<b>Unlikely.</b> This species or its sign (burrows, tracks, scat) were not observed during field surveys, and the substrate was void of any significant burrows. The closest known record of the species is approximately 4.9 miles east of the site and is from 1986 (Occ. #294). This species may occur occasionally as a transient but is not expected to den onsite. The proposed project would not significantly impact this species.

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

Scientific Name Common Name	Status	Habitat Requirements	Likelihood of Occurrence
<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.	<b>Unlikely.</b> This species or its sign (burrows, tracks, scat) were not observed during field surveys, and the substrate was void of any burrows, which is likely the result of soil compaction and vegetation clearing on the site. The closest known records of the species are from approximately 2.2 miles south of the site at the San Luis National Wildlife Refuge (Occ. #600). This species may occur occasionally as a transient but is not expected to den onsite. The proposed project would not significantly impact this species.
<b><sup>a</sup>Status (Federal/State)</b> None = No Federal or State status FE = Federally listed endangered FT = Federally listed threatened FDL=Federal Delisted SE = State listed endangered ST = State listed threatened CSC = State species of special concern FP = California fully protected species WL = California Watch List Species BCC = Federal Birds of Conservation Concern		<b><sup>b</sup>Status (CNPS)</b> List 1B.1 – Threatened in California and elsewhere, seriously threatened in California List 1B.2 = Threatened in California and elsewhere, moderately threatened in California List 2B = Plants rare, threatened, or endangered in California but more common elsewhere List 3 = Plants about which more information is needed List 4 = Plants of limited distribution	

#### 4.4 POTENTIALLY JURISDICTIONAL WATERS/WETLANDS

At the time of the reconnaissance survey, the site was dry, and no standing water was observed except in the wastewater treatment ponds. The NWI map indicates that the dairy is within and adjacent to a riverine, excavated, semi permanently flooded, unconsolidated bottom wetland (R5UBFx). This riverine feature identified by NWI appears to be a below-ground conveyance of water, potentially in a pipeline. Above the ground's surface there is no channel feature and the area consists of a berm with occasional valve boxes.

Dividing portions of the existing dairy from the expansion area to the north is a short-sloped berm along the wastewater treatment pond. At the base of this berm there is a small ditch that runs its length. At the time of the survey, there was no water and primarily ruderal plant species in the ditch.

## 5 PROJECT IMPACT ANALYSIS

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The project includes approval of a new Conditional Use Permit (CUP19-001) from Merced County to expand the existing dairy beyond its current permitted capacity so that the modified dairy would house 5,950 stock from the current 4,650 (see Table 1).

The proposed project would include modifications to the existing facilities and further construction. With implementation of the proposed dairy expansion, new structures would consist of approximately 375,500 square feet of construction. Approximately 42,440 square feet of existing buildings would be removed. There would be 20,000 cubic yards of cut and fill for the proposed buildings, and 30,000 cubic yards of cut and fill for the proposed pond. Cut and fill would be balanced onsite.

With construction of the proposed facilities, approximately 14 acres of cropped acreage would be converted to active dairy facilities. The remaining 316± acres would continue to be cropped with dairy feed crops. No conversion of open lands is proposed.

Daily trips by all classes of vehicle are estimated to increase from approximately 23.6 to 33.3 average daily trips, with an increase of 9.7 daily trips, including 5.2 heavy truck trips per day. The majority of trips would consist of auto and light truck trips. All trips would continue to access Santa Fe Grade and Preston Road.

### 5.1 STANDARDS OF SIGNIFICANCE

State CEQA Guidelines and standard professional practice determine whether the Toste 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 USFWS;
- Result in a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (see Appendix A for Merced County policies);

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
- Result in impacts to biological resources that are individually limited, but cumulatively considerable (i.e., the incremental effects of the project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

## **5.2 IMPACTS TO BIOLOGICAL RESOURCES**

### ***Special-Status Species***

#### **Plants**

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

**(No impact)**

#### **Wildlife**

##### **Nesting Birds**

Implementation of the project would result in the conversion of 14 acres of cropland to developed lands for the construction of the new dairy facilities. The proposed dairy expansion would be constructed on land that has been previously cultivated in corn and currently provides nesting and/or foraging habitat for a variety of special-status and migratory bird species.

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

#### **Recommended Mitigation:**

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

1. A preconstruction survey shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 100 feet of the site for MBTA protected birds and 500 feet for raptors shall be surveyed within seven days prior to the initiation of

construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds.

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

Preconstruction surveys and avoidance measures would reduce this impact to less than significant. Further, while approximately 14 acres of cropland would be converted to active dairy facilities, 332 acres would remain as cropland.

### **Tricolored Blackbird**

Tricolored blackbird (TCBB) is a California threatened species under CESA as of April 19, 2018. Based on the 2014 TCBB Statewide Survey, the TCBB population has declined by 63 percent since 2008 (Meese, 2014). However, the most recent results of the 2017 TCBB Statewide Survey suggest that the rapid decline in abundance observed since at least 2008 has been arrested and that there has been an increase in abundance since 2014 of about 32,000 birds (Meese, 2017). TCBB is a highly colonial species that nests in large flocks near open water with a protected substrate and nearby foraging area. TCBB have two specific peaks in breeding activity, one in the first week of June and one in the first two weeks of July. Total nesting duration is approximately 45 days. Historically, TCBB nested within emergent wetland in the Central Valley; however, currently 38 percent of TCBB nests occur on triticale, a wheat-rye hybrid grown for forage on dairies (Meese, 2014). The timing of triticale harvest conflicts with TCBB nesting, putting entire colonies at risk from harvesting activities that occur before fledging (Meese, 2009). TCBB foraging typically occurs within 3-5 miles of the nesting colony. Lightly grazed fields, irrigated pastures, annual grasslands, and grain fields that provide habitat for a supply of large insects such grasshoppers, dragonflies, and damselflies offer the best foraging habitat. However, dairy and silage edge as well as feed lots maybe used for foraging. Surface water is typically present within a half mile of the nesting colony, a habitat criterion that would be met by the wastewater storage ponds at this site. Although TCBB was not observed during the site survey, the croplands onsite could provide suitable nesting habitat for TCBB.

Currently, there are no specific mitigation requirements for the loss of TCBB nesting or foraging habitat. Both nesting and foraging mitigation options are currently being developed by CDFW and the Tricolored Blackbird Working Group (TBWG). If there is a permanent loss of TCBB breeding habitat, this impact may require compensatory mitigation. Loss of TCBB habitat may be compensated through a combination of: 1) creation of replacement habitat; 2) habitat preservation through Conservation

Easement; 3) acquisition of credits at an approved mitigation bank; 4) in-lieu contribution to a regional habitat restoration fund; and/or 5) other compensatory measures that are deemed acceptable by the CDFW. According to Samantha Arthur of the TBWG a disturbance buffer of 100 feet has been given to nesting TCBB at dairy operations in the Central Valley (Airola, et al., 2016). Although not currently required, mitigation for foraging habitat will likely be required in the future. Mitigation for the loss of foraging habitat could have a similar approach to what is currently being required for the Swainson's hawk, where compensatory mitigation is required for the conversion of foraging habitat within a specific buffer from a nest (Airola, et al., 2016).

Construction of the proposed dairy expansion would result in the conversion of approximately 14 acres of cropland to dairy facilities. **(Potentially significant)**

### **Recommended Mitigation:**

Due to the loss of 14 acres of potential breeding habitat, the following measures shall be implemented prior to and during construction activities:

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

### **Swainson's Hawks**

The state-threatened Swainson's hawk is known to nest and forage in the project vicinity. Although no raptor nests were observed, potential low quality nesting habitat (five small trees) is present for tree-nesting raptors, including Swainson's hawk, approximately 800 feet from the western portion of the project site. Due to the proximity of the suitable nesting habitat, direct impacts could occur, if a Swainson's hawk nests in the trees onsite. There are nine Swainson's hawk occurrences within five miles and 19 within ten miles of the project site, and Swainson's hawks generally forage within 10 miles of their nest tree, and more commonly within five miles of their nest tree (CDFW,



2019). Because cropland provides foraging habitat for small ground dwelling mammals, which are prey species for raptors, conversion of cultivated farmland to dairy facilities would contribute to the loss of foraging habitat for the Swainson's hawk.

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 14 acres of appropriate foraging habitat would be removed with project implementation, this would be a potentially significant impact, and the following compensatory mitigation would be required.

**(Potentially significant)**

**Recommended Mitigation:**

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

A written report with the pre-construction survey results must be provided to the Planning Department and CDFW within 30 days prior to commencement of construction-related activities. The report shall include: the date of the report, authors and affiliations, contact information, introduction, methods, study location, including map, results, discussion, and literature cited.

2. *Nest Avoidance*. If the required protocol surveys show there are no active nests within 0.5-mile of construction activities, then no additional mitigation for nest disturbance will be required. If nesting Swainson's hawks are observed within 0.5-mile of the project site, the project applicant must implement CDFW pre-approved mitigation measures to avoid nest impacts during construction. These measures include:

- a. All project-related activities with the potential to cause nest abandonment or forced fledging of young shall be avoided until the young have fledged.
  - b. If disturbances, habitat conversions, or other project-related activities, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone (0.5-mile), monitoring of the nest site by a qualified raptor biologist, funded by the project applicant, shall be required, to determine if the nest is abandoned. If the nest is abandoned, but the nestlings are still alive, the project proponent is required to fund the recovery and hacking, that is the controlled release of captive reared young, of the nestling.
  - c. The project applicant shall be required to coordinate with CDFW to determine if project activities with the potential to cause disturbance to nesting Swainson's hawks within the 0.5-mile buffer may proceed with a reduced nest buffer and an approved biological monitor. CDFW may authorize a reduced nest buffer with the presence of a monitoring biologist during construction activities to ensure that the nest is not disturbed.
  - d. Routine disturbances such as agricultural activities, commuter traffic, and routine maintenance activities within 0.5-mile of an active nest are not prohibited.
3. Foraging Impacts: Generally, CDFW requires mitigation for foraging habitat based on the presence of active nests within 10 miles of the project. If an active nest site is identified within ten miles of the project site, the project proponent will be required by CDFW to provide off-site foraging habitat management lands at a specified Mitigation Ratio that is based on nest proximity to the project site, as follows:

<b>Distance from Project Boundary</b>	<b>Mitigation Acreage Ratio*</b>
Within 1 mile	1.00:1**
Between 1 and 5 miles	0.75:1
Between 5 and 10 miles	0.50:1
*Ratio means [acres of mitigation land] to [acres of foraging habitat impacted]. **This ratio shall be 0.5:1 if the acquired lands can be actively managed for prey production.	

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

The CDFW pre-approved CEQA mitigation measures are found at: “DFG Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California,” CDFW ([http://www.madera-county.com/rma/archives/uploads/1188143775\\_Document\\_upload\\_23w.pdf](http://www.madera-county.com/rma/archives/uploads/1188143775_Document_upload_23w.pdf)) (November 8, 1994).

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

### **San Joaquin Kit Fox (SJKF) and American Badger**

No potential denning habitat is present for San Joaquin kit fox within the project site. Nevertheless, there are records from the occurrences of San Joaquin kit fox within the Merced National Wildlife Refuge, approximately 19 miles southeast of the project site, and from the San Luis National Wildlife Refuge, approximately two miles southeast. Signs of the American badger were not observed during field surveys, but the closest known records of the species are from approximately 4.9 miles east of the site (Occ. #294). This species may occur occasionally as a transient but is not expected to den onsite. However, because new construction associated with the project would not result in the conversion of habitat to agricultural or dairy production, no new impacts would occur to San Joaquin kit fox or American badger. **(No impact)**

### ***Sensitive Natural Community***

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

### ***Wetlands***

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

### ***Wildlife movement and nursery sites***

There are no creeks, valleys, or other wildlife movement corridors in the site. The project is located within the GFA boundary and is 0.44-mile of the North Grasslands

Wildlife Area, China Island Unit (CDFW), which is within the GEA. This wildlife area provides wetland and riparian habitat for migratory waterfowl and shorebirds and potential wildlife movement corridors and nursery sites near the project site.

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 D).

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

Existing night lighting at the dairy facility includes lighting mounted on the milking parlor, animal shelters, existing shop, and on the existing residences.

With implementation of the proposed dairy expansion, the project applicant expects new lighting on the proposed animal housing 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. **(Significant)**

#### **Recommended Mitigation:**

A Lighting Plan shall be developed to modify existing and future lighting at the Toste Dairy. Project-related lighting shall be minimized and directed away or shielded to maintain lighting within developed areas of the dairy and away from sensitive areas. No light trespass shall occur onto adjacent fields or off site. 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 Toste Dairy Expansion project would not conflict with any Merced County policies or ordinances pertaining to biological resources (see Appendix E). **(No impact)**

### ***Conflict with a Conservation Plan***

The Toste Dairy 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)**

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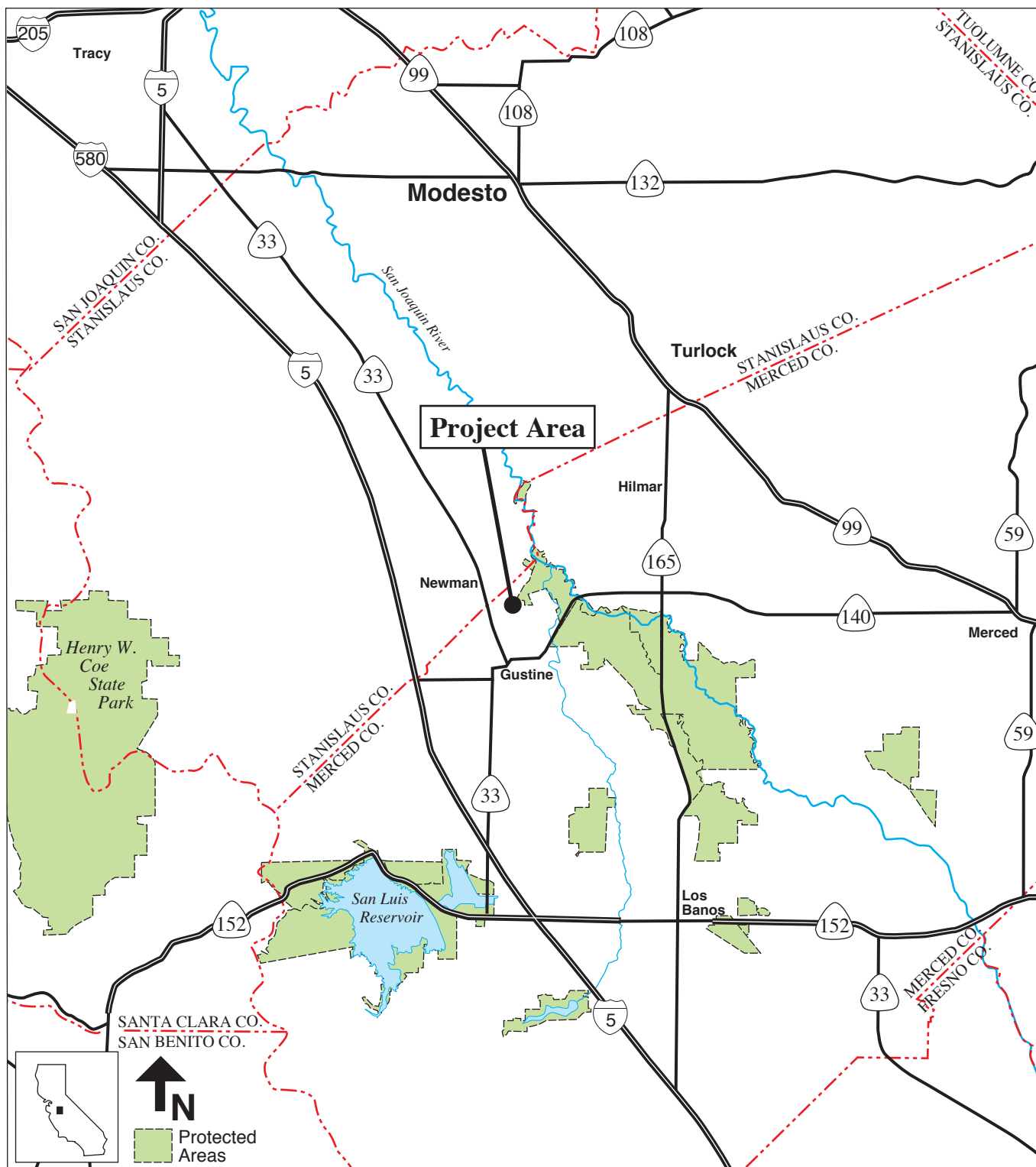
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## FIGURES

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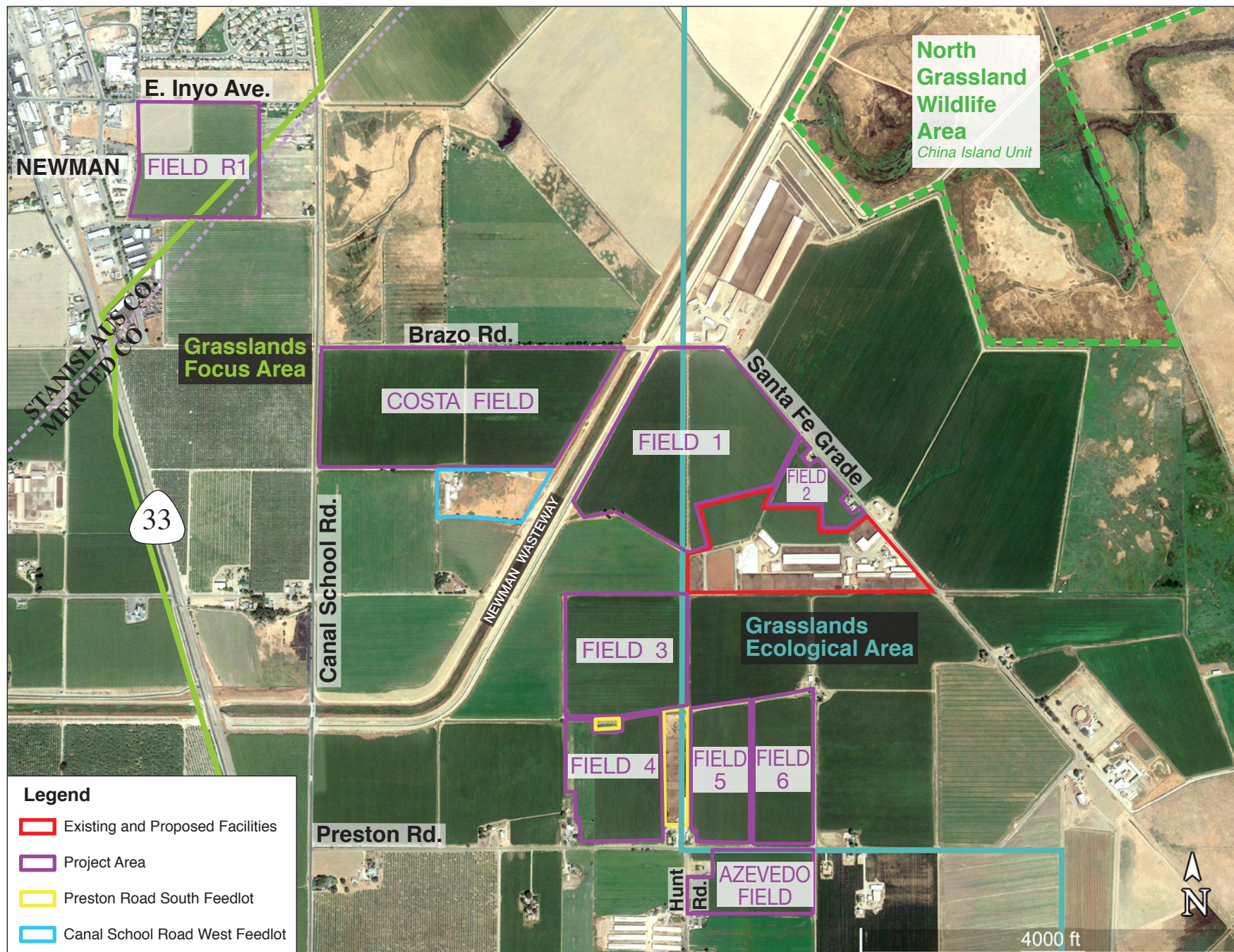


SOURCE: Planning Partners, 2019

Toste Dairy Expansion Project CUP19-001

**Figure 1**  
Regional Location





SOURCE: Sousa Engineering 2019; Google Earth 2019; Planning Partners 2019

Toste Dairy Expansion Project CUP19-001

**Figure 2**  
Project Location

### **FIGURE 3. SPECIAL-STATUS SPECIES MAP**

**CNDDDB GEOSPATIAL DATA IS CONFIDENTIAL – FIGURE  
AVAILABLE UPON REQUEST**



Photograph A.  
View of site for  
new proposed  
facilities looking  
north from the  
existing facilities  
(photograph taken  
9/27/19).



Photograph B.  
View of the berm  
that is shown on  
the NWI map as a  
riverine feature  
(photograph taken  
9/27/19).



Photograph C.  
View of berm that  
divides the  
western portion of  
the existing  
facilities from the  
western portion of  
the proposed  
facilities  
(photograph taken  
9/27/19).



Photograph D.  
View of  
wastewater  
storage pond on  
the western  
portion of the  
project site  
(photograph taken  
9/27/19).



## **APPENDIX A**

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### **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
<b>Land Use Element</b>	
<b>LU-1.13</b>	<b>Wetland Habitat Area Separation (RDR)</b> 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.
<b>LU-2.4:</b>	<b>Secondary Uses in Agricultural Areas (RDR)</b> 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.
<b>LU-2.7</b>	<b>Rural Energy Production (RDR/SO)</b> 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.
<b>LU-3.4:</b>	<b>New Rural Residential Center Prohibition (RDR)</b> Prohibit the creation of any new, or the expansion of any existing, Rural Residential Centers in the unincorporated county.
<b>LU-4.7:</b>	<b>Wildlife Refuge Separation (RDR)</b> 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.
<b>LU-10.14:</b>	<b>Consultation with Grassland Resources Regional Working Group (IGC)</b> 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.
<b>LU-10.12:</b>	<b>Consultation with State and Federal Agencies (IGC)</b> Continue to consult with applicable State and Federal regulatory agencies during project review and permitting activities.
<b>Natural Resources Element</b>	
<b>NR-1.1:</b>	<b>Habitat Protection (RDR/PSR)</b> 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.
<b>NR-1.2</b>	<b>Protected Natural Lands (RDR/PSR)</b> 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.
<b>NR-1.3</b>	<b>Forest Protection (SO)</b> Preserve forests, particularly oak woodlands, to protect them from degradation, encroachment, or loss.
<b>NR-1.4</b>	<b>Important Vegetative Resource Protection (SO)</b> Minimize the removal of vegetative resources which stabilize slopes, reduce surface water runoff, erosion, and sedimentation.



<b>BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013</b>	
<b>POLICY</b>	<b>DESCRIPTION</b>
<b>NR-1.5</b>	<b>Policy NR-1.5: Wetland and Riparian Habitat Buffer (PSR/RDR)</b> Identify wetlands and riparian habitat areas and designate a buffer zone around each area sufficient to protect them from degradation, encroachment, or loss.
<b>NR-1.6</b>	<b>Policy NR-1.6: Terrestrial Wildlife Mobility (SO)</b> 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.
<b>NR-1.7</b>	<b>Policy NR-1.7: Agricultural Practices (SO)</b> 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.
<b>NR-1.8</b>	<b>Policy NR-1.8: Use of Native Plant Species for Landscaping (SO)</b> Encourage the use of native plant species in landscaping, and, where the County has discretion, require the use of native plant species for landscaping.
<b>NR-1.9</b>	<b>Policy NR-1.9: Rural to Urban Redesignations (MPSP)</b> Carefully consider the potential impacts on significant habitats from new development when redesignating land from a rural to an urban use.
<b>NR-1.10</b>	<b>Policy NR-1.10: Aquatic and Waterfowl Habitat Protection (MPSP)</b> 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.
<b>NR-1.11</b>	<b>Policy NR-1.11: On-Going Habitat Protection and Monitoring (PSR)</b> 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.
<b>NR-1.12</b>	<b>Policy NR-1.12: Wetland Avoidance (RDR/PSR/MPSP)</b> 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.
<b>NR-1.13</b>	<b>Policy NR-1.13: Wetland Setbacks (RDR)</b> Require an appropriate setback, to be determined during the development review process, for developed and agricultural uses from the delineated edges of wetlands.
<b>NR-1.14</b>	<b>Policy NR-1.14: Temporary Residential Uses (RDR)</b> Ensure that buildings and structures approved for temporary residential use in significant wetland areas are not converted to permanent residential uses.
<b>NR-1.15</b>	<b>Policy NR-1.15: Urban Forest Protection and Expansion (SO/MPSP)</b> 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.
<b>NR-1.16</b>	<b>Policy NR-1.16: Hazardous Waste Residual Repository Location (RDR)</b> 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.

<b>BIOLOGICAL RESOURCES POLICIES FROM THE 2030 MERCED COUNTY GENERAL PLAN ADOPTED DECEMBER 10, 2013</b>	
<b>POLICY</b>	<b>DESCRIPTION</b>
<b>NR-1.17</b>	<b>Policy NR-1.17: Agency Coordination (MPSP/IGC/JP)</b> 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.
<b>NR-1.18</b>	<b>Policy NR-1.18: San Joaquin River Restoration Program Support (MPSP/SO)</b> Monitor the San Joaquin River Restoration Program efforts to ensure protection of landowners, local water agencies, and other third parties.
<b>NR-1.19</b>	<b>Policy NR-1.19: Merced River Restoration Program Support (MPSP/SO)</b> Support the restoration efforts for the Merced River consistent with the Merced River Corridor Restoration Plan.
<b>NR-1.20</b>	<b>Policy NR-1.20: Conservation Easements (SO/IGC/JP)</b> Encourage property owners to work with land trusts and State and Federal agencies to pursue voluntary conservation easements.
<b>NR-1.21</b>	<b>Policy NR-1.21: Special Status Species Surveys and Mitigation (RDR/SO/IGC)</b> 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.
<b>Program NR-C</b>	<b>GIS Mapping (PSR, PI)</b> 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
<b>Program NR-D</b>	<b>Sensitive Habitat Guidelines (MPSP)</b> 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
<b>Program NR-E</b>	<b>Biological Resources Review Requirements (RDR/MPSP/IGC)</b> 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**

<b>POLICY</b>	<b>DESCRIPTION</b>
<b>Program NR-F</b>	<p><b>Ongoing Inventory of Open Space Resources (MPSP/PSR/SO)</b></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>
<b>Program NR-G</b>	<p><b>Open Space Development Review System (RDR/IGC)</b></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"> <li>1. Basic Land Use Category, Zone Code Consistency, and Community Service Availability Determination</li> <li>2. Open Space Inventory Map and Data Base Review</li> <li>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</li> <li>4. Environmental Determination</li> <li>5. Land Use and Sensitive Resource Compatibility Determination.</li> </ol> <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>
<b>Program NR-I</b>	<p><b>Agricultural Education Program (SO/IGC/PI)</b></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**

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### **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:  
Consultation Code: 08ESMF00-2019-SLI-3146  
Event Code: 08ESMF00-2019-E-10013  
Project Name: Toste Dairy Expansion

September 24, 2019

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

### To Whom It May Concern:

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

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

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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

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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

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## Project Summary

Consultation Code: 08ESMF00-2019-SLI-3146

Event Code: 08ESMF00-2019-E-10013

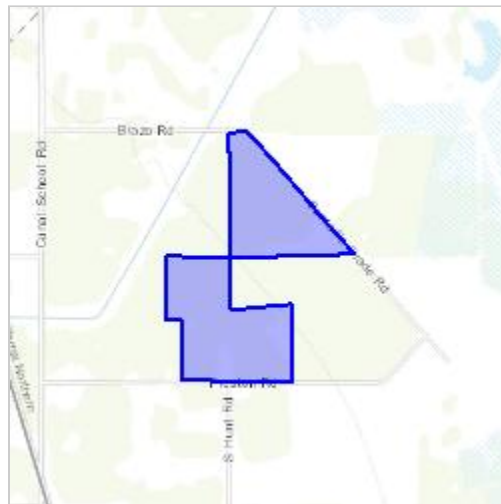
Project Name: Toste Dairy Expansion

Project Type: AGRICULTURE

Project Description: Existing dairy expansion

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.29284983550005N120.9944659317016W>



Counties: Merced, CA

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## Endangered Species Act Species

There is a total of 11 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 Fisheries<sup>1</sup>, 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 <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5150">https://ecos.fws.gov/ecp/species/5150</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf</a>	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered

## Reptiles

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

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## Amphibians

NAME	STATUS
<p>California Red-legged Frog <i>Rana draytonii</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a></p> <p>Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf</a></p>	Threatened
<p>California Tiger Salamander <i>Ambystoma californiense</i></p> <p>Population: U.S.A. (Central CA DPS)</p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/2076">https://ecos.fws.gov/ecp/species/2076</a></p>	Threatened

## Fishes

NAME	STATUS
<p>Delta Smelt <i>Hypomesus transpacificus</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a></p>	Threatened

## Insects

NAME	STATUS
<p>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a></p> <p>Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a></p>	Threatened

## Crustaceans

NAME	STATUS
<p>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a></p>	Endangered
<p>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a></p>	Threatened
<p>Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i></p> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a></p>	Endangered

## **Critical habitats**

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

## **APPENDIX C**

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### **CNDDB QUERY RESULTS**



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



Query Criteria: BIOS selection

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.
<b><i>Agelaius tricolor</i></b> tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	55 346	955 S:41	3	0	1	0	5	32	23	18	36	3	2
<b><i>Ambystoma californiense</i></b> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	70 243	1205 S:6	0	5	0	0	0	1	3	3	6	0	0
<b><i>Antrozous pallidus</i></b> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	70 70	420 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Aquila chrysaetos</i></b> golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	280 280	321 S:1	1	0	0	0	0	0	0	1	1	0	0
<b><i>Ardea alba</i></b> 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
<b><i>Ardea herodias</i></b> great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	75 75	155 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Astragalus tener</i> var. <i>tener</i></b> alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	55 175	65 S:6	0	3	0	0	1	2	2	4	5	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.
<b><i>Athene cunicularia</i></b> 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	1988 S:2	0	1	0	0	0	1	1	1	2	0	0
<b><i>Atriplex cordulata var. cordulata</i></b> heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	50 175	66 S:3	0	1	0	0	1	1	3	0	2	0	1
<b><i>Atriplex depressa</i></b> brittlescale	G2 S2	None None	Rare Plant Rank - 1B.2	175 175	60 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Atriplex minuscula</i></b> lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1		52 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Atriplex persistens</i></b> vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	65 75	41 S:6	0	0	0	0	0	6	5	1	6	0	0
<b><i>Branchinecta conservatio</i></b> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	70 75	43 S:2	0	1	0	0	0	1	2	0	2	0	0
<b><i>Branchinecta longiantenna</i></b> longhorn fairy shrimp	G1 S1S2	Endangered None	IUCN_EN-Endangered	70 70	20 S:1	0	0	0	0	0	1	0	1	1	0	0
<b><i>Branchinecta lynchi</i></b> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	70 75	769 S:2	0	0	0	0	0	2	1	1	2	0	0
<b><i>Branta hutchinsii leucopareia</i></b> cackling (=Aleutian Canada) goose	G5T3 S3	Delisted None	CDFW_WL-Watch List	70 80	19 S:2	0	0	0	0	0	2	2	0	2	0	0
<b><i>Buteo swainsoni</i></b> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	55 275	2510 S:28	3	6	0	0	0	19	9	19	28	0	0
<b><i>Chloropyron molle ssp. hispidum</i></b> hispid salty bird's-beak	G2T1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	60 100	35 S:6	0	2	1	0	0	3	5	1	6	0	0
<b><i>Cismontane Alkali Marsh</i></b> Cismontane Alkali Marsh	G1 S1.1	None None		75 75	4 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Coastal and Valley Freshwater Marsh</i></b> Coastal and Valley Freshwater Marsh	G3 S2.1	None None		75 75	60 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>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	55 460	1375 S:8	1	6	1	0	0	0	1	7	8	0	0
<i>Eremophila alpestris actia</i> California horned lark	G5T4Q S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	200 250	94 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Eryngium racemosum</i> Delta button-celery	G1 S1	None Endangered	Rare Plant Rank - 1B.1	50 75	26 S:8	1	3	2	1	1	0	7	1	7	1	0
<i>Eryngium spinosepalum</i> spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	70 170	108 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Extriplex joaquinana</i> San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	70 75	127 S:2	0	1	0	0	0	1	2	0	2	0	0
<i>Falco mexicanus</i> prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,000 1,000	460 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Lanius ludovicianus</i> loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	72 72	110 S:2	2	0	0	0	0	0	0	2	2	0	0
<i>Lasiurus blossevillii</i> western red bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	70 70	128 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lasiurus cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	70 70	238 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.
<b><i>Lasthenia glabrata ssp. coulteri</i></b> Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-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
<b><i>Lepidurus packardii</i></b> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	65 85	325 S:6	1	2	0	0	0	3	2	4	6	0	0
<b><i>Linderiella occidentalis</i></b> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	70 85	438 S:3	0	0	0	0	0	3	3	0	3	0	0
<b><i>Myotis yumanensis</i></b> Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern WBWG_LM-Low-Medium Priority	70 70	265 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Navarretia prostrata</i></b> prostrate vernal pool navarretia	G2 S2	None None	Rare Plant Rank - 1B.2	65 75	60 S:3	1	0	0	0	0	2	1	2	3	0	0
<b><i>Oncorhynchus mykiss irideus pop. 11</i></b> 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
<b><i>Perognathus inornatus</i></b> San Joaquin Pocket Mouse	G2G3 S2S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern	175 175	127 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Pogonichthys macrolepidotus</i></b> Sacramento splittail	GNR S3	None None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_EN-Endangered	40 40	15 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Rana draytonii</i></b> California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	200 200	1540 S:1	0	0	0	1	0	0	1	0	1	0	0
<b><i>Sagittaria sanfordii</i></b> Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive		126 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Spea hammondi</i></b> western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	65 241	1057 S:5	1	2	0	0	0	2	4	1	5	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.
<b><i>Stuckenia filiformis ssp. alpina</i></b> slender-leaved 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
<b><i>Sycamore Alluvial Woodland</i></b> Sycamore Alluvial Woodland	G1 S1.1	None None		200 200	17 S:1	0	0	0	0	0	1	1	0	1	0	0
<b><i>Taxidea taxus</i></b> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	70 410	591 S:3	0	1	0	0	0	2	3	0	3	0	0
<b><i>Thamnophis gigas</i></b> giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	70 90	366 S:11	0	1	3	0	0	7	8	3	11	0	0
<b><i>Valley Sacaton Grassland</i></b> Valley Sacaton Grassland	G1 S1.1	None None		75 75	9 S:2	1	0	1	0	0	0	2	0	2	0	0
<b><i>Valley Sink Scrub</i></b> Valley Sink Scrub	G1 S1.1	None None		65 65	29 S:1	0	0	1	0	0	0	1	0	1	0	0
<b><i>Vulpes macrotis mutica</i></b> San Joaquin kit fox	G4T2 S2	Endangered Threatened		73 680	1018 S:8	0	0	0	0	0	8	8	0	8	0	0

## **APPENDIX D**

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

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