DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project applicant. A NEGATIVE DECLARATION will be prepared.

X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Diana Lowrance August 8, 2022

Diana Lowrance, Planner III
Merced County
Community and Economic Development Department

PROJECT DESCRIPTION / LOCATION

The project consists of the expansion of an existing dairy facility located approximately 2.4 miles west-southwest of the Stevinson community in unincorporated Merced County. The existing Silva Dairy Farms operation consists of two separate dairy facilities located on the north and south side of State Route (SR) 140 at the intersection of Edminster Road in the Stevinson area of the County. The main dairy facility is located south of SR 140 on ≈25 acres, and the north facility is located on ≈18 acres; the total existing farm area includes 414 acres on 22 parcels.

Conditional Use Permit CUP21-011 proposes to modify and expand the existing dairy to house a total of 7,300 animals, including 4,000 milk cows, 500 dry cows, and 2,800 support stock, and to officially merge the two existing separate dairy facility permits into a single permit. Considering the existing 2,953 animals at the dairy facility, the proposed expansion would represent an increase of 4,347 animals from existing numbers. The proposed project would include construction of supporting buildings and features at the dairy facility, including five new freestall barns, two loafing barns, commodity barn, milking parlor expansion, a shop, and dry manure storage and calf hutch area. With construction of the proposed facilities, approximately 7 acres of cropped acreage would be converted to active dairy facilities. The remaining acreage would continue to be cultivated with dairy feed crops.

POTENTIAL AREAS OF ENVIRONMENTAL IMPACT

An initial evaluation of the proposed Silva Dairy Farms Expansion project indicates that the project has the potential to result in significant adverse effects on the environment for the following issue areas:

- Air Quality and Odors
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Greenhouse Gas Emissions and Energy Efficiency
- Hazards and Nuisance Insects
- Hydrology and Water Quality
- Land Use Compatibility

The Environmental Impact Report will evaluate the impacts associated with these issue areas. In addition to the above, the Silva Dairy Farms Expansion project EIR will also include an analysis of project alternatives and cumulative effects.

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INITIAL STUDY AND ENVIRONMENTAL EVALUATION

Project Title:	Silva Dairy Farms Expansion Conditional Use Permit No. CUP21-011
Project Location:	1499 N. Edminster Road and 1904 N. Edminster Road Stevinson, CA 95374
Lead Agency Name and Address:	Merced County Community and Economic Development Department 2222 'M' Street Merced, CA 95340
Contact Person and Phone Number:	Diana Lowrance, Planner III Phone: (209) 385-7654 ext. 4163
General Plan Designation:	Agricultural (Merced County)
Zoning:	A-1, General Agricultural (Merced County)

1. DESCRIPTION OF PROJECT

The project under evaluation in this Initial Study (IS) is the construction and operation of the expansion of an existing dairy facility located in rural Merced County southwest of the community of Stevinson. This Initial Study focuses on whether the proposed project may cause significant effects on the environment. In particular, consistent with Section 21083.3 of the California Public Resources Code, this Initial Study is intended to assess any effects on the environment, which are peculiar to the proposed project or to the parcel on which the project would be located. The Initial Study is also intended to assess whether any environmental effects of the project are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or by other means [Section 15152(d)(2) of the Guidelines for the California Environmental Quality Act (CEQA)]. If such revisions, conditions or other means are identified, they will be imposed as mitigation measures.

This initial study relies upon CEQA Guidelines Sections 15064 – 15064.7 in its determination of the significance of environmental effects. According to Section 15064(f), the finding as to whether a project may have one or more significant effects shall be based on substantial evidence in the record, and "[i]f the lead agency determines there is substantial evidence in the record that the project may have a significant effect on the environment, the lead agency shall prepare an EIR".

LOCATION

The existing Silva Dairy Farms operation consists of two separate dairy facilities located on the north and south side of State Route (SR) 140 at the intersection of Edminster Road in the Stevinson area of the County. The main dairy facility is located south of SR 140 on ≈25 acres, and the north facility is located on ≈18 acres; the total existing farm area includes 414 acres on 22 parcels (8 of which are leased) in unincorporated Merced County. The project's location is within the central California region (see Figures 1 and 2). The south dairy facility is located on portions of two parcels identified as Merced County Assessor's Parcel Numbers (APN) 055-210-020 (19.4 acres) and 055-210-049 (33.8 acres). The north dairy site is located on one parcel identified as APN 055-210-024 (18.2 acres) (see Table 1 and Figure 3). The project cropland application area consists of ≈364 acres (see Figure 2 for application areas, and Figure 3 and Table 1 for Merced County APNs). The dairy project site is located in Section 20, Township 7 South, Range 10 East, Mount Diablo Base and Meridian; 37°18′36.58″N, 120°53′51.14″W.

Table 1 Silva Dairy Farm Project Parcels, Acreage, and Use

APN	Field ID	Cropped Acres**	Use	Nutrients Applied
055-210-020 055-210-049	South Dairy Site	-	Active dairy facilities, residence	n/a
055-210-024	North Dairy Site	-	Active dairy facilities, residences	n/a
055-210-020 055-210-021	Field on Right	36	Oats/corn	WW/SM
055-210-032 055-210-033 055-210-047	Big Field	34	Oats/corn	WW/SM
055-210-030 055-210-029	Palma/Hinds	37	Oats/corn	WW/SM
055-210-049	Behind Heifers	13***	Oats/corn	WW/SM
055-210-019 055-310-003 055-310-004	JN-1	38	Oats/corn	WW/SM
055-310-006	JN-3	19	Oats/corn	WW/SM
055-210-051*	JN-5	21	Oats/corn	WW/SM
055-310-025* 055-310-018* 055-210-025* 055-210-026*	HR-1/HR-2/ HR-3	81	Oats/corn	WW/SM
055-210-026* 055-310-017* 055-310-016*	HR-4	29	Oats/corn	SM
055-290-010	Pasture	18	Pasture	SM
055-203-005* 055-203-006*	3rd Street	38	Oats/corn	SM
Total Cropped Acres		**364**		

Table 1 Silva Dairy Farm Project Parcels, Acreage, and Use

Notes: APN = Assessor's Parcel Number
The proposed Nutrient Management Plan cited irrigation sources include on-site irrigation wells and surface water from the Merquin Canal. The Nutrient Management Plan indicates that surface water is the primary source of irrigation water for on-site fields.
* Leased fields.
** Approximate acreage. Cropped acreage is based on the Existing and Proposed Conditions Nutrient Management Plans dated 02/28/2018 and 03/06/2020, respectively. Nutrients may not be applied to the gross acreage of the parcel listed, but only the cropped acreage listed. Both liquid and/or solid manure can be applied at the dairy operator's discretion as long as nutrient planning targets are met.
*** With the proposed dairy expansion, cropped acreage on Behind Heifers would be reduced from 13 to 6 acres.

Source: Project Applicant, October 2021; Existing Conditions Nutrient Management Plan 02/28/2018; Proposed Conditions Nutrient Management Plan (03/06/2020); Merced County GIS October 2021.

EXISTING CONDITIONS

The existing south dairy is located at 1499 N. Edminster Road on ≈25 acres and includes the following facilities:

- double parallel (40 stall) milking parlor
- 4 freestalls and corrals
- commodity barn
- old milking parlor 1 (not used)
- office
- mechanical separator
- 1 residence
- storage building
- special needs barn
- shade barns
- one settling basin
- one wastewater pond
- feed and manure storage area

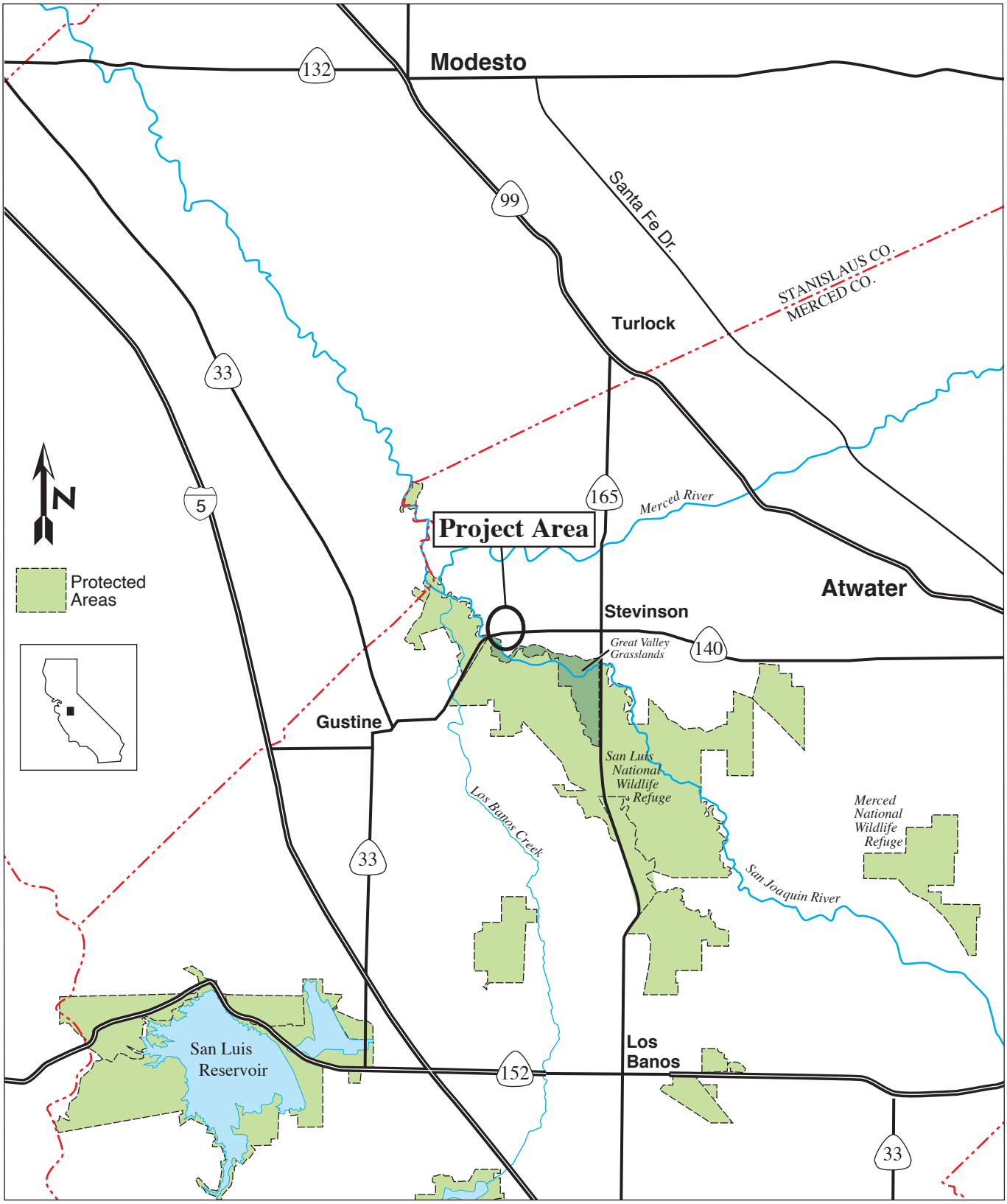
The existing north dairy is located at 1904 N. Edminster Road on ≈18 acres and includes the following facilities:

- 20 stall milking parlor
- 2 freestalls and corrals
- shed and carport
- old milking parlor 2 (not used)
- four on-site residences
- animal shade
- commodity barn
- calf hutches
- one wastewater pond
-

Only support stock are housed on the north dairy facility. Both the north and south dairy facilities are managed as one facility/operation and are covered by the same existing conditions NMP and WMP; however, they are technically under separate permit by the CVRWQCB and the SJVAPCD. Animals are moved back and forth between the north and south facilities with trailers hauled by heavy duty pickups. Approximately 16 trips are made per week. The following description of existing operations presents the south and north dairy facilities as a combined operation.

Approximately 364 acres of the dairy farm are currently used for the production of crops and the application of manure process water and/or solid manure[1] (see Table 1). The remaining project acres consist of field roads and ancillary farm uses.

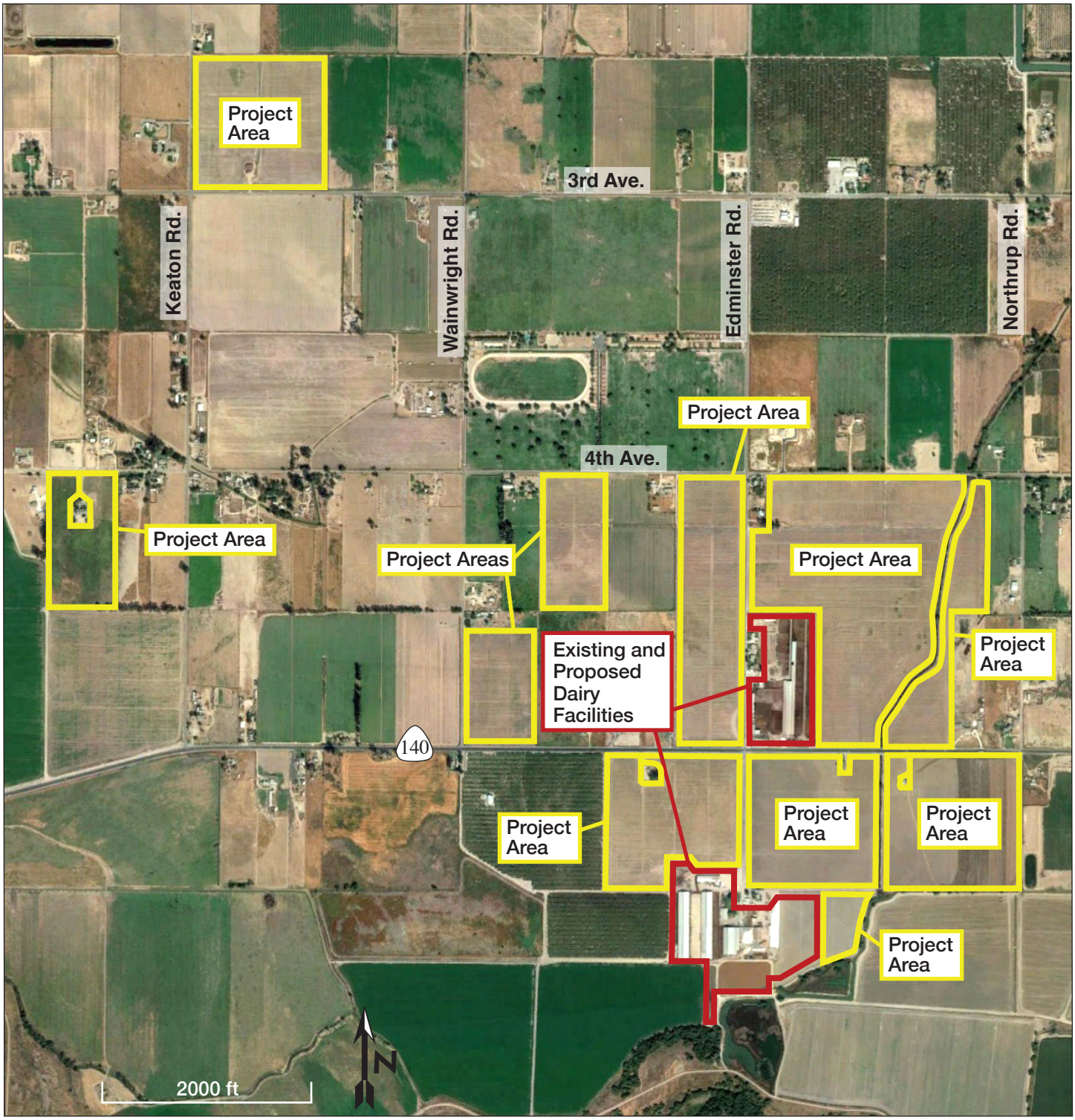
[1] While the details of cropland parcels may vary throughout operations, the disposal of wastewater and solid manure and the acreage necessary to properly dispose of manure liquids and solids would be accounted for in an updated project Nutrient Management Plan (NMP).



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners, 2021

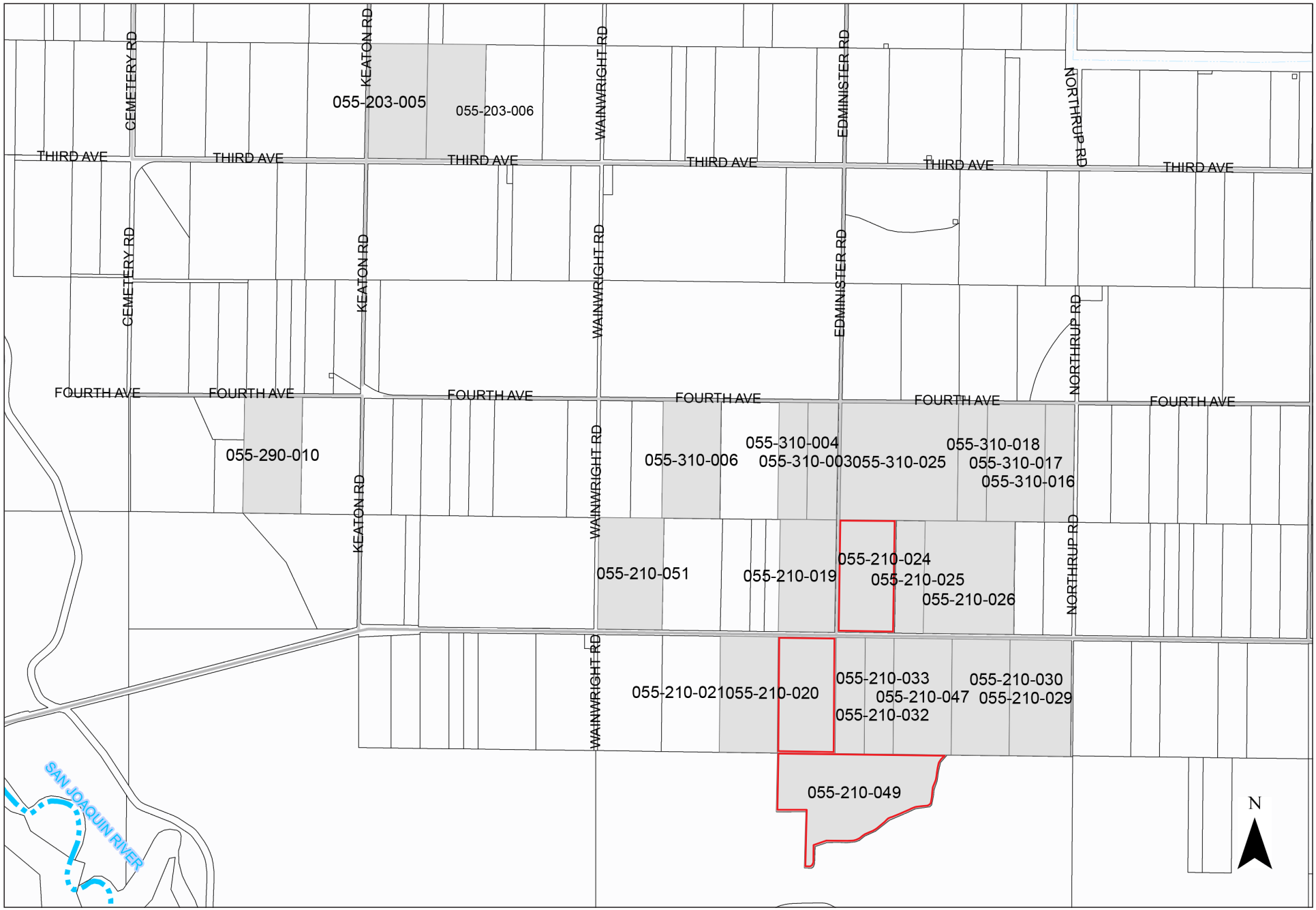
Figure 1
Regional Location



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners, 2021

Figure 2
Project Vicinity



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Merced County GIS 2022

Active Dairy Project Site Parcels

Figure 3

Project Site Merced County Assessor Parcel Numbers

As established at the time of Initial Study preparation (July 2022), there are approximately 1,420 milk cows and 185 dry cows with 1,348 support stock, totaling 2,953 animals at the combined facility. The predominant breed of cows housed at the dairy is Jersey and Jersey-Holstein cross.

The existing dairy facility consists of flush and scrape systems that are used to collect and process wastewater and solid manure. Animal wastes from animal barns and other concrete-surfaced areas are flushed with recycled water to an on-site waste management system that consists of one settling basin, two wastewater ponds, and a mechanical separator. All ponds are earthen embankment structures constructed with native soils. The area of active dairy facilities has been graded to direct corral runoff to the existing waste management system. Stormwater runoff from impervious surfaces and roofed areas is routed to the wastewater ponds, except for stormwater from two freestall barns, which is routed to fields. Recycled water is used to clean the milk parlor floor and is the source of sprinkler pen water.

Definition of the Project Site – For the purposes of this Initial Study, the "project site" refers to the area of active dairy facilities, including the north dairy facilities and the south dairy facilities. The larger project also includes cropland associated with the dairy farm. Throughout this document, "project area" refers to all parcels that are part of the project, including the active dairy facilities and associated cropland.

The surfaces of the freestall exercise pens and open corrals are scraped in the morning on a biweekly basis to reduce dust conditions. Dry manure is removed from corrals twice per year, in the spring and fall after harvest. Solid manure handling consists of manure stock piles, windrows, solid manure application to land, used for freestall bedding, or sold to brokers and hauled off-site to fields in the project vicinity. As reflected in the NMP, approximately 9,300 tons of corral manure and separated solids[2] (approximately 19 percent of the dry manure generated at the dairy) is exported and applied to off-site fields not owned by the dairy operator.

The dairy facility uses both surface water and groundwater resources for farm operations. Domestic water to the site and dairy is provided by four on-site water wells (there is one well located at the north dairy and three domestic wells at the south dairy). Irrigation water is supplied by surface water sources from the Merquin Canal and groundwater from two project area irrigation wells. Wastewater is mixed with irrigation water and applied to cropland. Receiving fields are graded to guide excess applied irrigation water to an existing tailwater return and/or retention system. Collected tailwater is collected by berm, or recycled and returned to the retention pond. Field application of wastewater would include surface irrigation via pipeline. Solid manure would be applied via broadcasting onto cultivated fields and incorporating the manure in the soil.

The Silva Dairy Farms is a member of the Central Valley Dairy Representative Monitoring Program (CVDRMP). The CVDRMP has established a regional groundwater monitoring plan for member dairies in order to monitor groundwater quality and evaluate impacts from management practices.

Crops grown on-site are used for dairy feed crops and to supplement imported grain and hay. Crops include oats silage-soft dough, corn silage. One field is used for pasture. Feed is stored in silage piles, dry grain tanks, and in on-site commodity barns.

[2] Including approximately 215,324 pounds of nitrogen.

There is no insect control service at the Silva Dairy Farms. The dairy facility stores diesel fuel for agricultural use in a 400-gallon aboveground tank. There is a permitted diesel-fired emergency standby generator on-site. Hazardous materials used in dairy operations are stored in the milking parlor pump room, on the south side of the milking parlor, north of the existing commodity barn, and east of the old milking parlor. As reported by the Merced County Division of Environmental Health (DEH) during the preliminary application review, the facility has a current Hazardous Materials Business Plan (HMBP) (accepted on June 10, 2021), which will need to be updated each year.

There are four residences located at the north dairy facility, and one residence on the south dairy facility. At the north dairy facility, three residences are occupied by adult employees, and one residence is occupied by a non-employee and their family. At the south dairy facility, the single residence is occupied by an employee and their family. Domestic water is delivered to the residences via the on-site domestic water wells. Sewer service is provided by existing on-site septic systems. There are additional residences associated within project area fields.

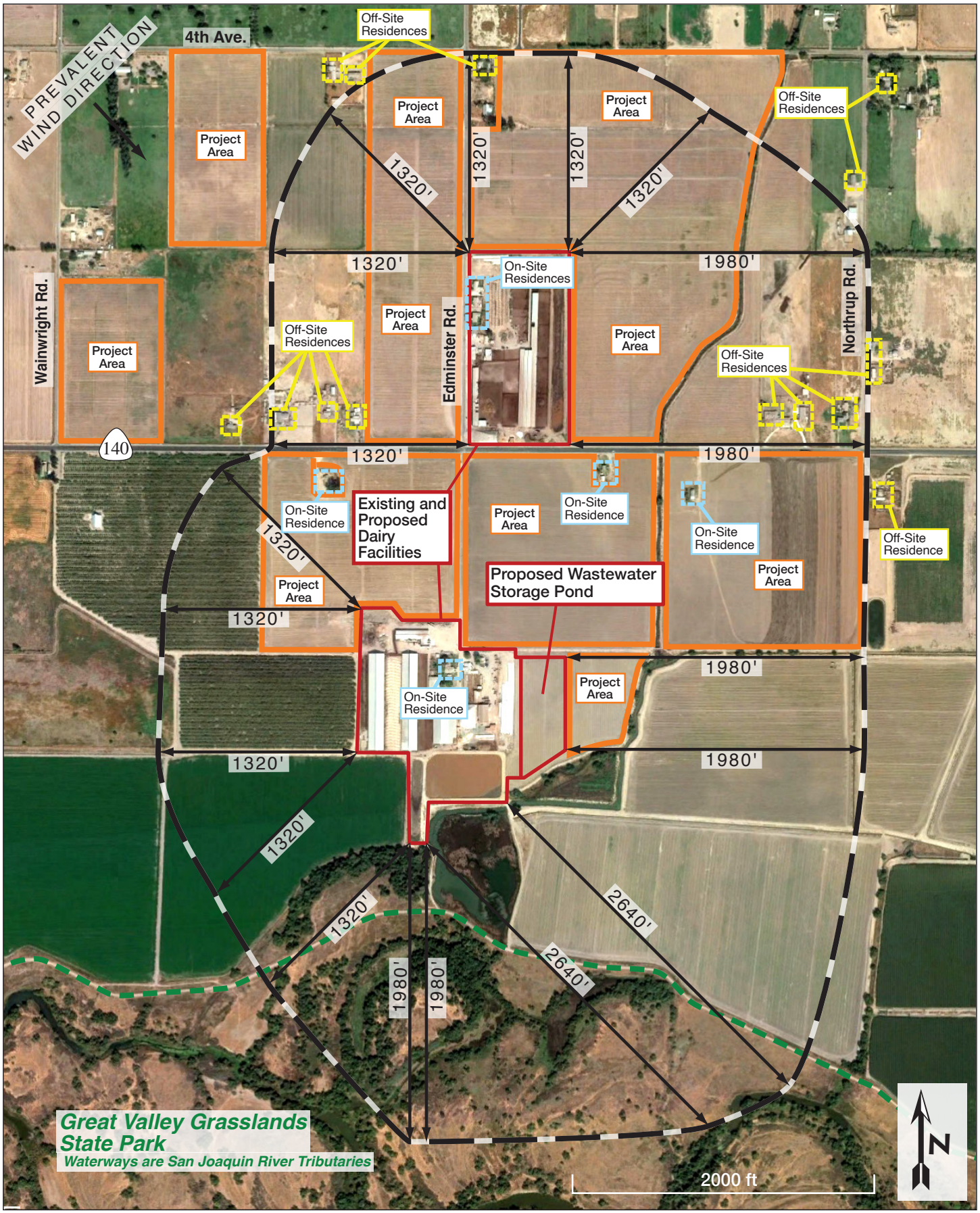
Operations at the dairy are 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. Night lighting at the facility includes building mounted lighting on the milking parlor and animal housing structures, and yard lighting near the office and residence at the south dairy facility. Light fixtures consist of fluorescent and LED bulbs. As older fixtures require replacement, they are replaced with LED. The dairy currently employs a staff of approximately 19 workers, with a maximum of 13 workers on-site at any time.

Currently, heavy trucks (milk tankers, commodity deliveries) and other vehicles serve the project site. Existing daily trips by all classes of vehicles are estimated at 37.8 average daily trips (ADT), with approximately 11.1 heavy truck trips. All trips currently access Edminster Road and SR 140. The dairy provides on-site parking areas for employees and suppliers/vendors.

The western portion of the project site is located within Flood Zone X, which is defined as an area with an annual flooding probability of 0.2 percent, outside of the 100-year flood zone. The eastern portion of the project site is located within Flood Zone A, an area subject to inundation by a 100-year storm, but for which a Base Flood Elevation has not been established.

SURROUNDING LAND USES AND SETTING

There are off-site single-family residences associated with neighboring agricultural operations surrounding the project site to the north, west, and east. Neighboring agricultural operations include small goat and horse farms to the north and east of the project site. There are several off-site residences located within the windshed of the dairy (defined as an area of 1,320 feet upwind to 2,640 downwind of the periphery of the animal facility) (see Figure 4). Table 2 lists the immediate surrounding land uses and corresponding General Plan and zoning designations to the Silva Dairy Farms active animal confinement facilities.



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners 2021

Figure 4

Active Dairy Facilities and Nearby Residences Located in the Windshed

Table 2 Surrounding Land Uses at the Silva Dairy Farms			
Location	**Land Use**	**General Plan**	**Zoning**
ON-SITE	Dairy / Agriculture / residences	Agricultural	General Agricultural A-1
NORTH	Agriculture / Residences / horse arena	Agricultural	General Agricultural A-1
EAST	Agriculture / Residences / animal operations	Agricultural	General Agricultural A-1
SOUTH	State Park/National Wildlife Refuge/Open Space	Agricultural	General Agricultural A-1
WEST	Agriculture / Residences	Agricultural	General Agricultural A-1

Source: Project Site Visit, February 2022; Project Applicant, October 2021; Merced County GIS October 2021.

The community of Stevinson is located approximately 2.4 miles to the east-northeast of the existing active dairy facilities. The San Joaquin River is located approximately 0.65 miles south of active dairy facilities (see Figure 1). Lands located in the Great Valley Grasslands State Park are located approximately 0.1 miles south of the south dairy facility, and the San Luis National Wildlife Refuge is located further to the south and southeast. Both the north dairy and south dairy facilities are located adjacent to, but outside of, the Grasslands Ecological Area boundary.

Project details such as adjacent land uses and cropping patterns could change over the course of evaluation, and from those existing at the time of this Initial Study. These changes, however, would consist of agricultural and ancillary uses consistent with the 2030 Merced County General Plan, and would not affect the analysis contained in this Initial Study.

PROJECT CHARACTERISTICS

The project applicant has applied for a new Conditional Use Permit (CUP21-011) from Merced County to modify and expand the existing dairy to house 4,000 milk cows, 500 dry cows, and 2,800 support stock (see Table 3), and to officially merge the two existing separate dairy facility permits into a single permit. Considering the existing animals at the dairy facility, the proposed expansion would represent an increase of 4,347 animals from existing numbers.

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

Notes: This evaluation considers maximum buildout.
There are two (2) mature bulls at the Silva Dairy Farm under both existing and proposed conditions; however, since they are not included in the NMP, they are not included in the herd count.

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

The proposed project would include the construction of supporting buildings and structures totaling 353,572 square feet at the existing dairy, including:

North facility:

- three (3) freestall barns of approximately 59,110 square feet, 27,825 square feet, and 15,360 square feet
- two (2) loafing barns of approximately 42,665 square feet and 41,472 square feet and associated corrals
- 60,000 square feet dry manure storage and calf hutch area.

South facility:

- two (2) freestall barns of approximately 35,700 square feet and 63,000 square feet
- 44,000 square-foot commodity barn
- 22,040 square-foot milking parlor expansion
- 2,400 square-foot shop (see Figure 5).

The proposed project would reduce the area of open corral space and increase the area of covered animal housing structures. There is an existing mechanical manure separator at the south facility, and a separator also would be installed at the north facility. There would be construction of one (1) new wastewater pond east of the south facilities. With construction of the wastewater storage pond, there would be 7 acres of cropland converted to active dairy facilities. The new pond would be built to the Central Valley Regional Water Quality Control Board (CVRWQCB) Tier 1 pond standard, using a double 60-mil HDPE liner or approved equivalent. See Figure 5 for the proposed dairy site plan.

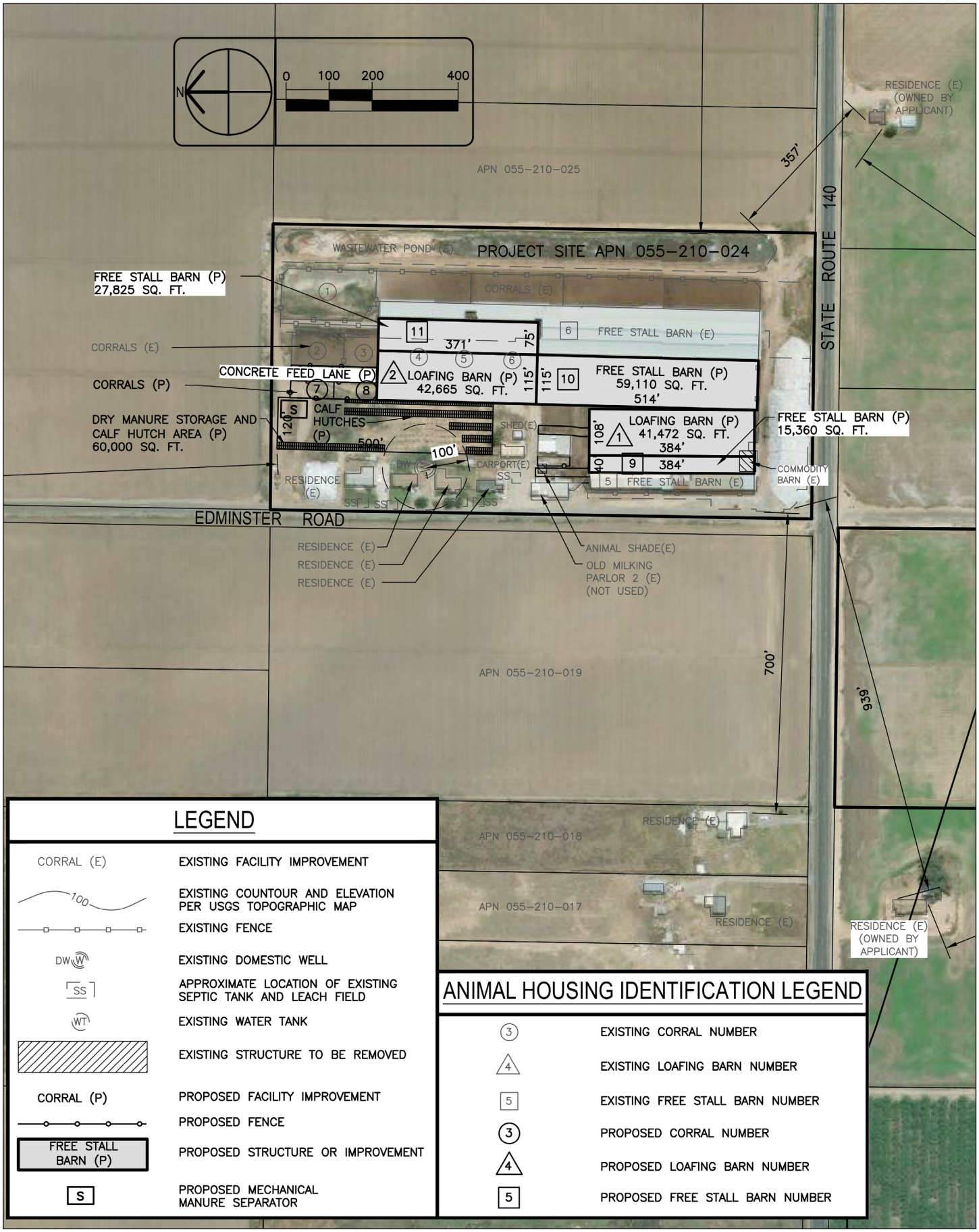
With construction of the proposed facilities, an existing storage building, residence, old milking parlor, shade barns, commodity barns, and corrals would be removed (a total of 19,485 square feet of structures). As shown on the proposed site plan (see Notes 1 and 2 on Figure 5), a replacement dairy domestic well would be drilled west of the existing milking parlor to replace the existing well that must be decommissioned prior to construction of Freestall Barn 8. The existing residence at the south facility would be demolished prior to construction of proposed Freestall Barn 8 (see Figure 5).

Cropped acreage associated with the expanded dairy operations would include approximately ≈357 acres, with the conversion of 7 acres of cropland in the Behind Heifers field for construction of the proposed wastewater storage pond (see Table 1 and Figures 6a and 6b for the layout of the dairy fields). Crops grown on-site would continue to be used for dairy feed crops and supplement imported grain and hay. Silage piles would remain the same as existing operations.

The closest off-site residences are located approximately 700 feet and 895 feet west of active animal facilities at the north dairy. With the proposed dairy expansion, distances to these residences would not be reduced (see Figure 7).

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

Stormwater runoff from impervious surfaces and roofed areas would continue to be routed to the wastewater pond, except for rainwater from several barns, which would be routed to nearby fields and irrigation pipelines. Wastewater would continue to be mixed with irrigation water and applied to the fields.

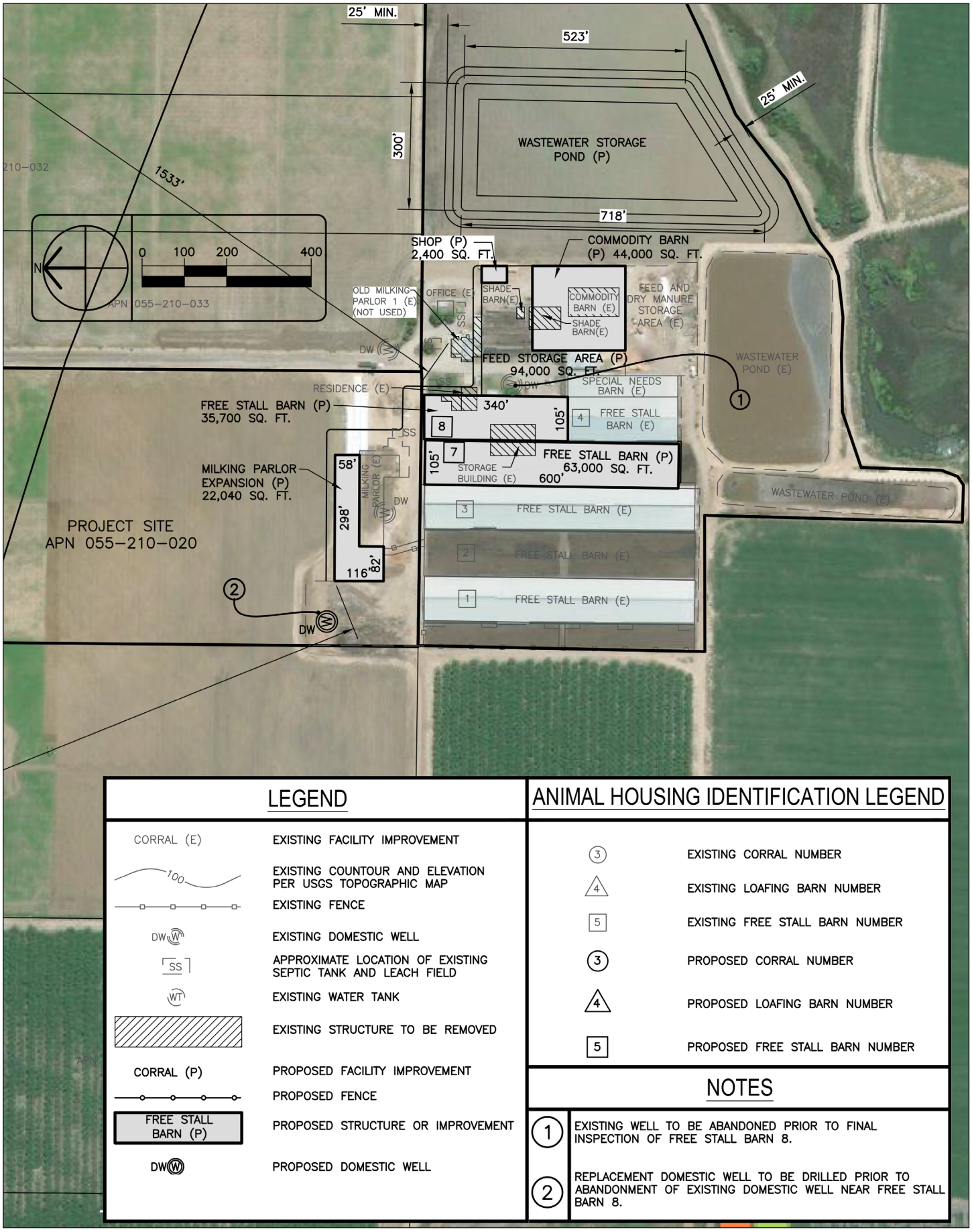


Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Sousa Engineering, 2020; Planning Partners, 2022

Figure 5a

Proposed North Dairy Facilities



LEGEND

CORRAL (E)	EXISTING FACILITY IMPROVEMENT
100	EXISTING COUNTOUR AND ELEVATION PER USGS TOPOGRAPHIC MAP
	EXISTING FENCE
DW	EXISTING DOMESTIC WELL
SS	APPROXIMATE LOCATION OF EXISTING SEPTIC TANK AND LEACH FIELD
WT	EXISTING WATER TANK
	EXISTING STRUCTURE TO BE REMOVED
CORRAL (P)	PROPOSED FACILITY IMPROVEMENT
	PROPOSED FENCE
FREE STALL BARN (P)	PROPOSED STRUCTURE OR IMPROVEMENT
DW	PROPOSED DOMESTIC WELL

ANIMAL HOUSING IDENTIFICATION LEGEND

3	EXISTING CORRAL NUMBER
4	EXISTING LOAFING BARN NUMBER
5	EXISTING FREE STALL BARN NUMBER
3	PROPOSED CORRAL NUMBER
4	PROPOSED LOAFING BARN NUMBER
5	PROPOSED FREE STALL BARN NUMBER

NOTES

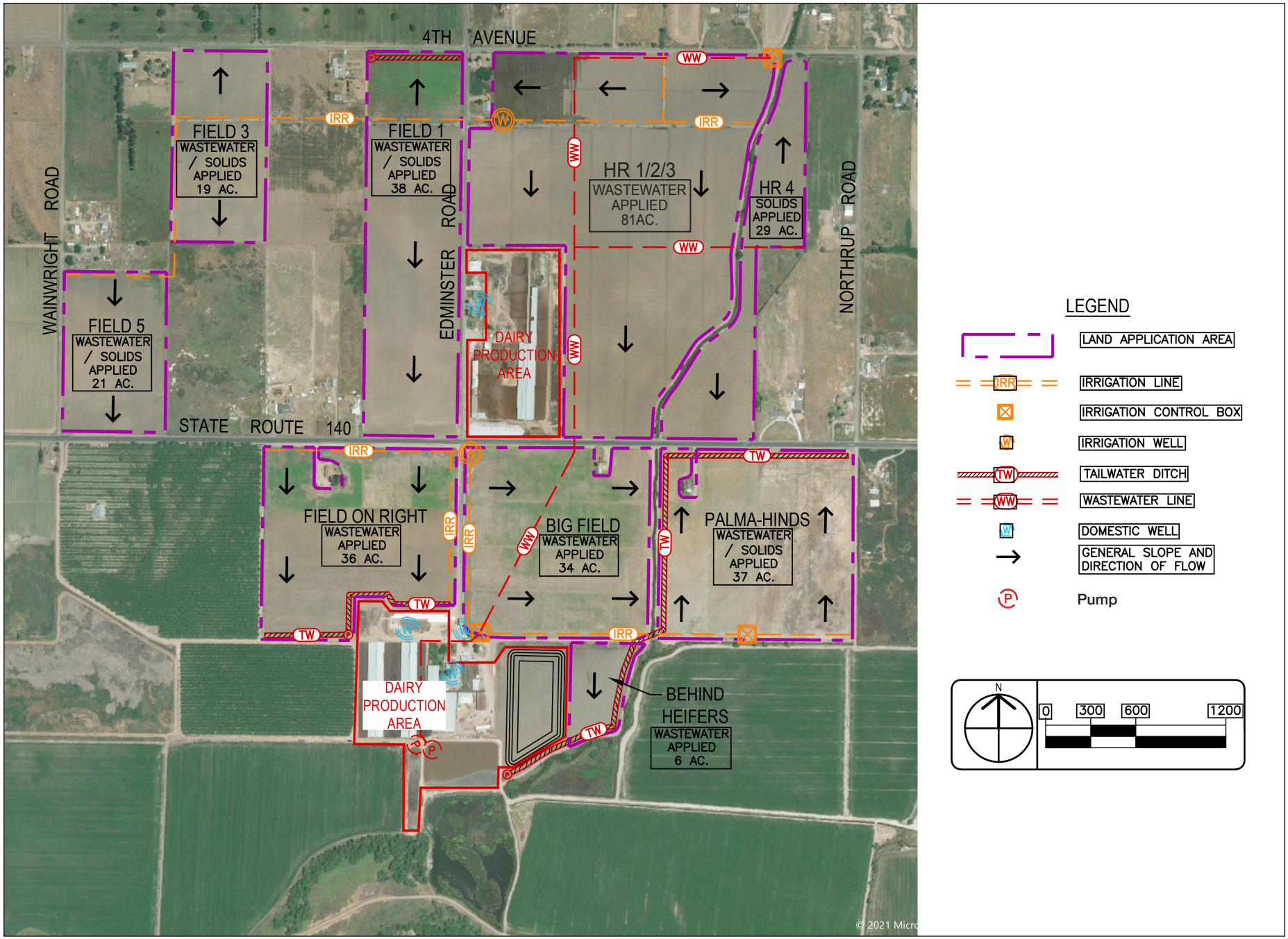
1. EXISTING WELL TO BE ABANDONED PRIOR TO FINAL INSPECTION OF FREE STALL BARN 8.
2. REPLACEMENT DOMESTIC WELL TO BE DRILLED PRIOR TO ABANDONMENT OF EXISTING DOMESTIC WELL NEAR FREE STALL BARN 8.

Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Sousa Engineering, 2020; Planning Partners, 2022

Figure 5b

Proposed South Dairy Facilities

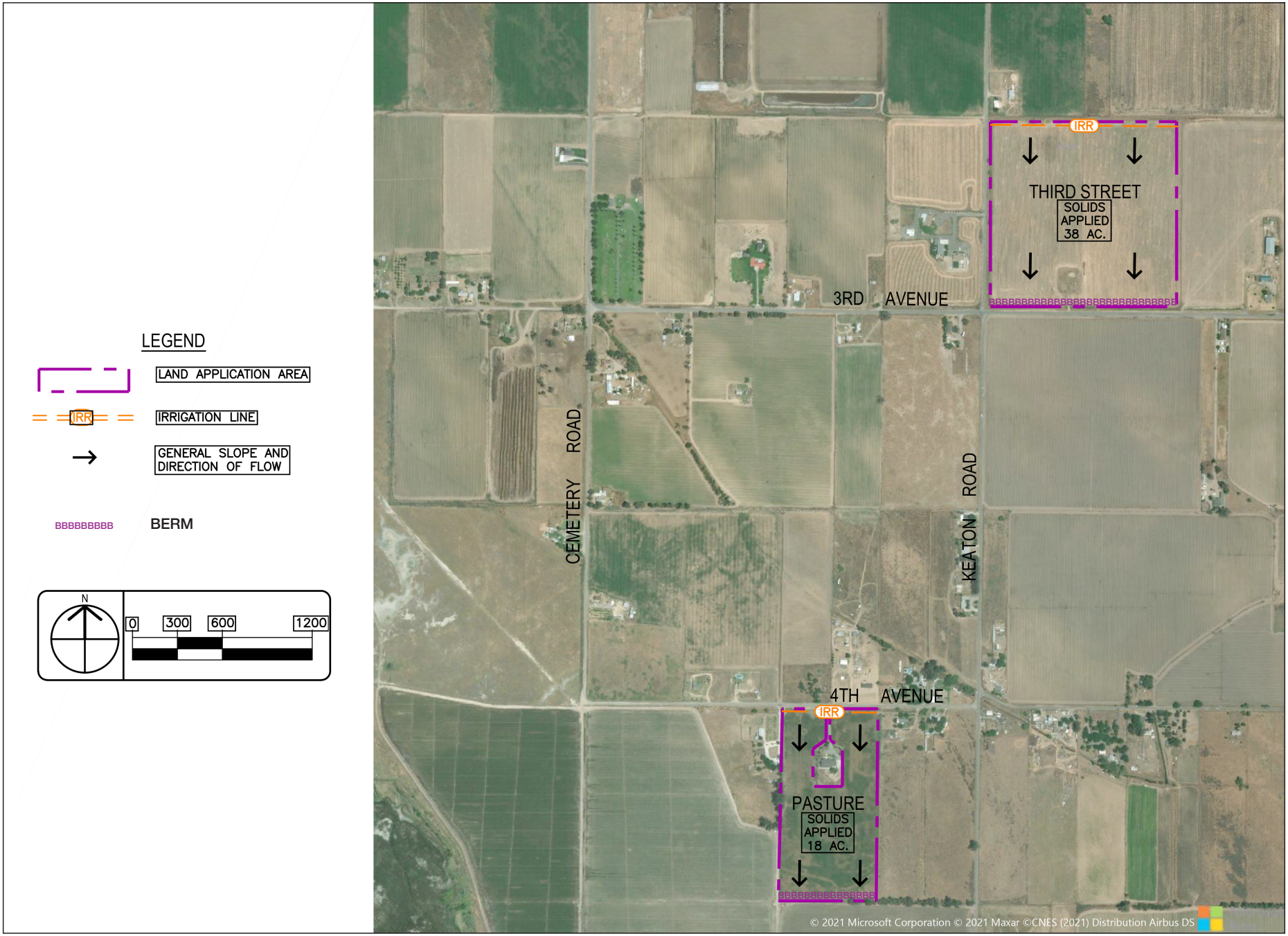


Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Sousa Engineering, 2021

Figure 6a

Land Application Areas

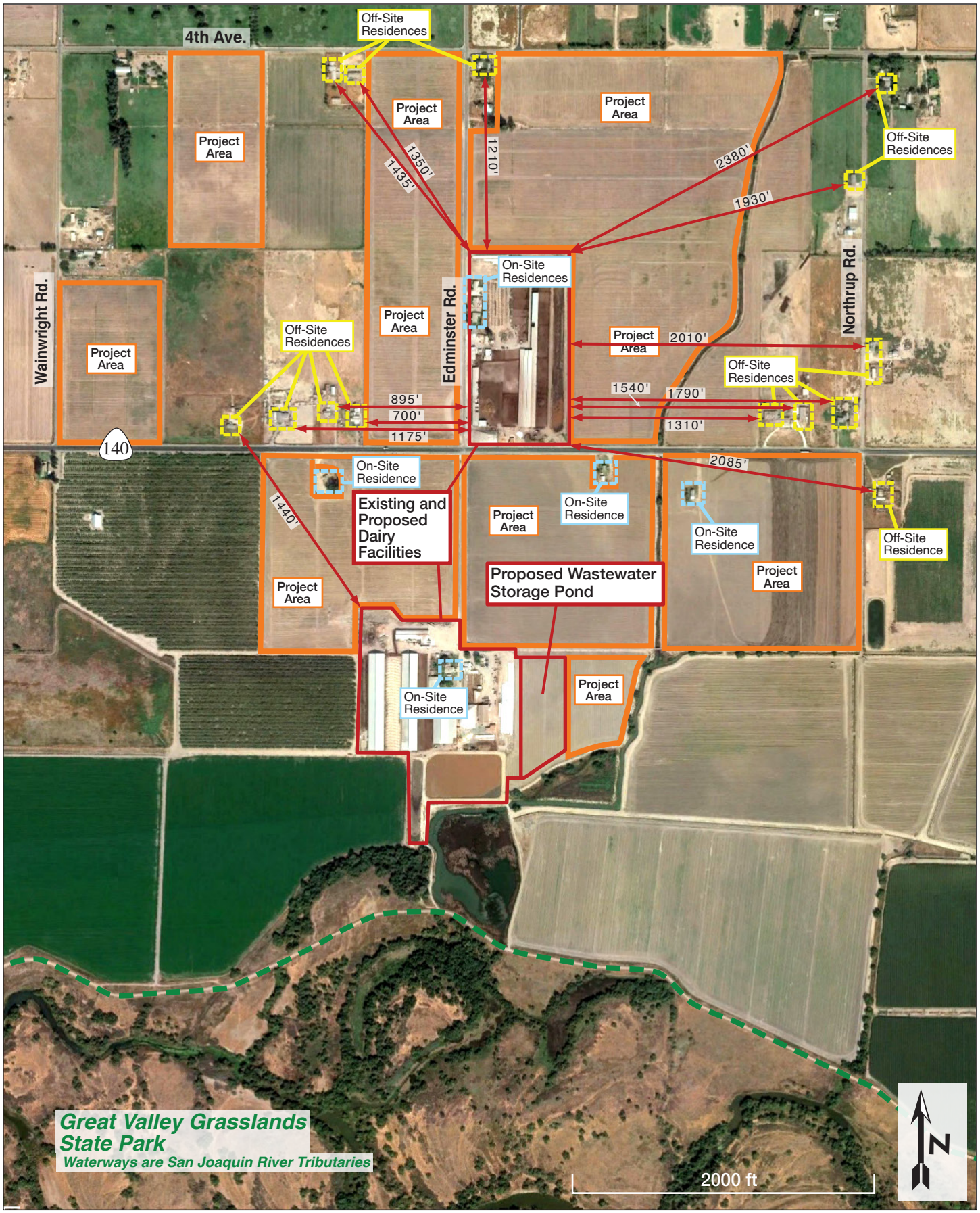


Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Sousa Engineering, 2021

Figure 6b

Additional Land Application Areas



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners 2022

Figure 7

Distance of Nearest Off-Site Residences to Existing and Proposed Active Dairy Facilities

Solid manure that accumulates within corrals would continue to be scraped. Dry manure would continue to be stockpiled on-site at existing and proposed manure storage areas and used for bedding; additional manure would be sold and hauled off-site for use as fertilizer and soil amendments. Manure solids would be separated from liquids by two solid manure separators, one at the south facility and one at the north facility. As reported in the NMP, exported solid manure applied to off-site agricultural fields not owned by the project applicant would increase from 9,300 tons of solid manure from the dairy facility to 49,200 tons of solid manure[3] with the proposed expansion (approximately 41 percent of previously separated solids)[4]. 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. Figure 8 shows a cross-section of a freestall dairy barn and Figure 9 illustrates the processes that occur at a dairy farm.

The dairy facility uses and stores diesel fuel, motor oil, hydraulic oil, and other petroleum products associated with the operation of heavy equipment. The dairy facility also uses and stores cleaning and maintenance materials that may be categorized as hazardous. The types and quantities of these materials are documented in the HMBP prepared for this facility, which would be updated as necessary.

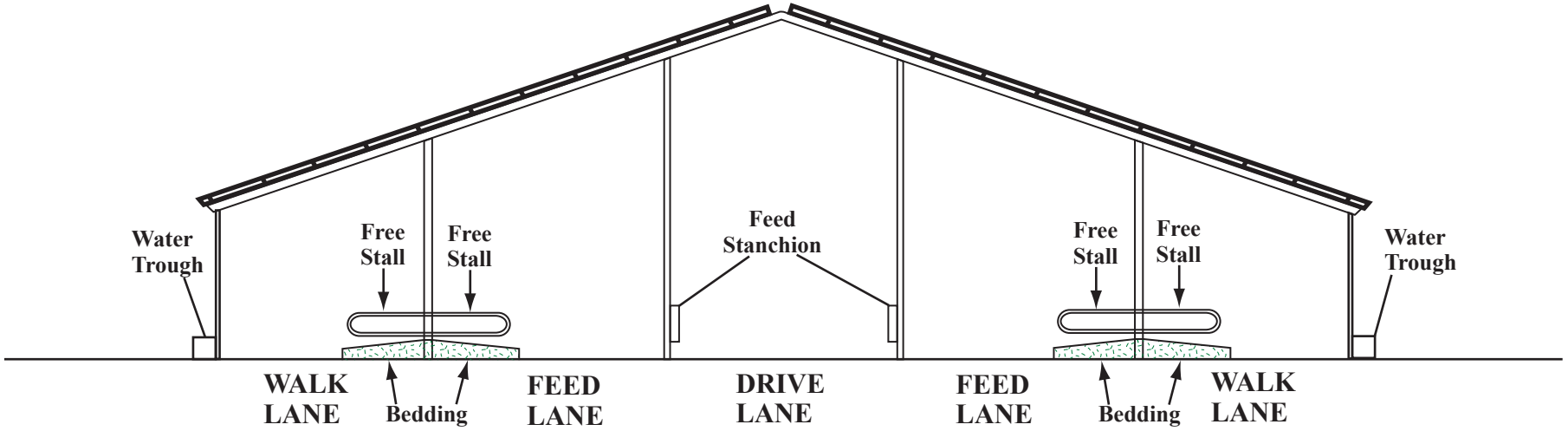
The proposed dairy expansion would rely on existing utilities, including domestic water, stormwater, and electrical services. Electrical service is provided by PG&E.

Operations at the dairy would continue to occur 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. With implementation of the proposed project, the number of employees would increase from 19 to approximately 25 total workers, with as many as 16 anticipated to be on site during peak hours.

The project applicant has prepared a Vector Control Plan in accordance with ACO Chapter 18.64.060(C)(8). An Odor Control Plan will be required for the proposed facility operations. As part of the Odor Control Plan, the dairy operator will provide a point of contact to residents within the windshed of the dairy should nuisance odors occur. The dairy operator will respond to neighbors who are adversely affected by odors and take corrective action.

[3] Including approximately 914,385 pounds of nitrogen.

[4] The dairy facility has a limited land base, which would be reduced with the proposed expansion. The proposed increase in herd would result in an associated increase in manure and greater increase in exports. With the amount of irrigated land in the area, there is a high demand for dairy manure as an economical fertilizer source for other growers, and the increased manure to be exported would easily be sold to third-party fertilizer companies.

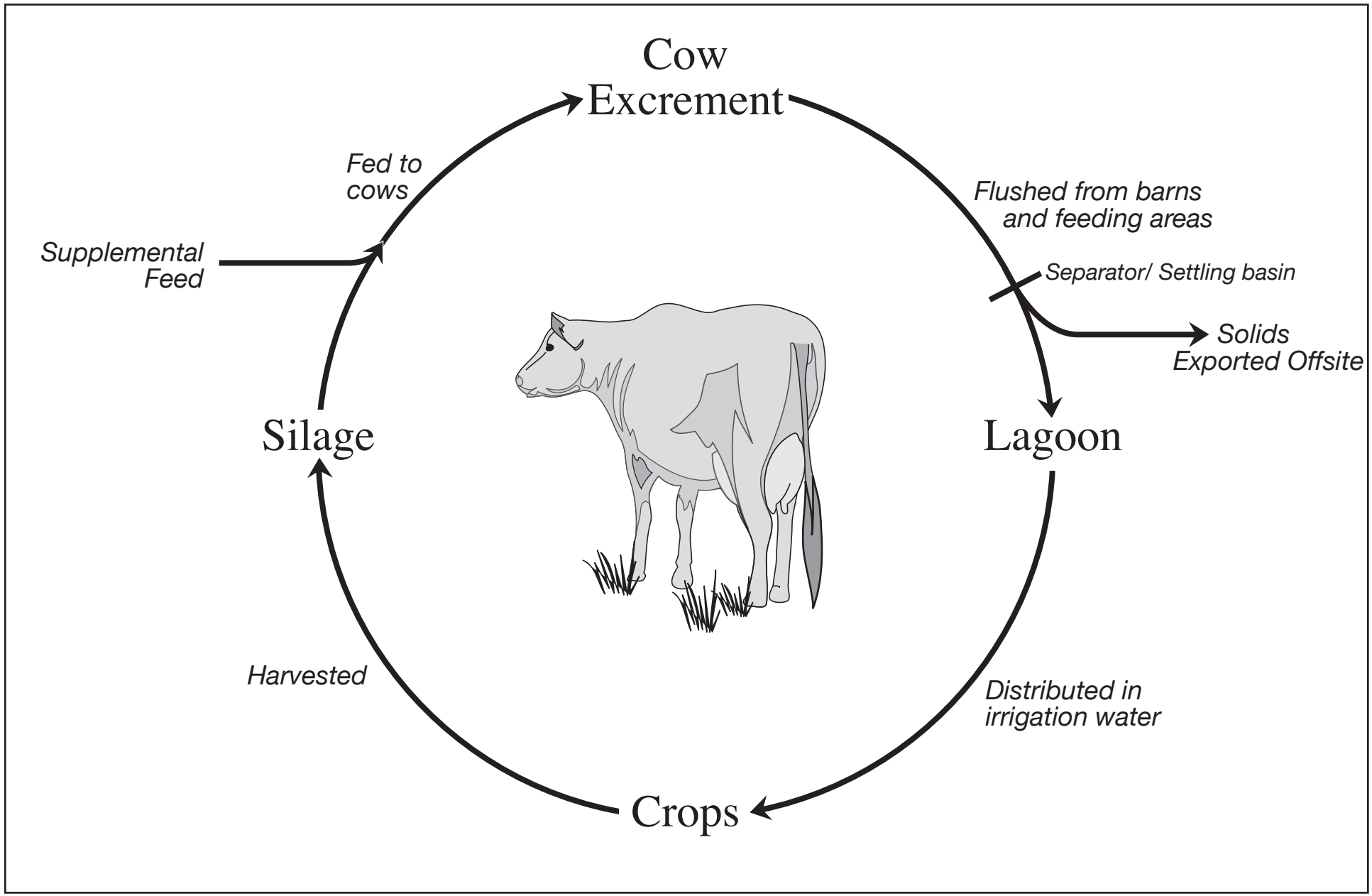


Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners, 2021

Figure 8

Freestall Dairy Barn - Schematic Cross-Section



Silva Dairy Farms Expansion Project CUP21-011

SOURCE: Planning Partners 2021

Figure 9
Process Diagram

Water Supply Systems

There is one domestic dairy well located at the north facility. Based on the number of connections at the north facility (4 residences, old milking parlor 2 (vacant) = 5 connections), the water supply system would be considered a state small water system. However, with demolition of the old milking parlor 2, the number of connections would be reduced to 4, the north system would not qualify as a state small water system. Since the number of persons using the north water system would never reach 25 per day on 60 or more days of the year, the north system would not be classified as a public water system with the proposed dairy expansion.

State Small Water System. As set forth by DEH, if five (5) or more buildings (connections) are connected to a water system, then a state small water system permit is needed, unless a public water system permit is required. If 25 or more persons in a typical 24-hour period (both work shifts) are using a water system, then a public water system permit is needed. Vacant buildings with plumbing are still considered water system connections.

There are three domestic wells at the south facility. Based on the number of existing connections at the south facility (1 residence (to be demolished in conjunction with construction of Free Stall Barn 8), old milking parlor 1 (vacant, to be demolished), office, current milking parlor (to be expanded), proposed shop = 3 connections), the water supply system would not be considered a state small water system. The south facility currently has 19 different employees and no residences using the water system. With the proposed expansion, the total number of different employees working at the south system is expected to increase to 25. Of the 19 current and the 25 future employees, at least 2 will not be working on any given day due to scheduled employee time off. Therefore, the number of persons served each day by the south system is currently 17 and will increase to 23. The water system is currently not a public water system and would not be expected to become one with the proposed expansion. All domestic wells at the dairy would meet the 100-foot setback requirement between any manured areas and water wells.

DEH has reviewed the existing and proposed project plans and determined that the wells and septic systems would be in compliance with County regulations following completion of required permit approvals.

Circulation and Parking

The combined dairy facility would continue to be served by heavy trucks (milk tankers, commodity deliveries), and other vehicles. Animals are moved back and forth between the north and south facilities. The animals are moved with trailers hauled by heavy duty pickups, though there would be no increase in animal movement trips with the proposed expansion. Daily trips by all classes of vehicle are estimated to increase from approximately 37.8 to 50.3 average daily trips for the combined dairy. There would be an overall increase of 12.6 daily trips, including 6.6 heavy truck trips per day (see Table 4). The majority of trips would consist of auto and light truck trips. All trips would continue to be made via Edminster Road and SR 140. There would be adequate parking for proposed employees.

Table 4 Silva Dairy Farms Expansion Project Trip Generation and Assignment

Auto/Light Truck	Daily Trip Generation Factor	Type of Vehicle	Daily Trips	
			Existing	With Project
Residential Dwellings (on site)	2/residence *See Note 1	Auto/Light Truck	10	8
Employees (off-site)	2/employee *See Note 2	Auto/Light Truck	16	24
Milk Tanker	*See Note 3	Heavy Truck	2	4
Commodities transport from off site	*See Note 4	Heavy Truck	2	4
Solid manure transport to off-site fields	*See Note 5	Heavy Truck	2.2	4.5
Silage transport	*See Note 6	Heavy Truck	2.5	2.9
Animal transport	*See Note 7	Heavy Truck	2.3	2.3
Rendering Service	*See Note 8	Medium Truck	0.1	0.1
Veterinarian	*See Note 9	Light Truck	0.3	0.3
Purveyor sales	2/facility office	Auto/Light Truck	0.3	0.3
Total Auto/Light Truck Trips			**26.6**	**32.6**
Total Medium Truck Trips			**2.4**	**2.4**
Total Heavy Truck Trips			**8.8**	**15.3**
Total Trips			**37.8**	**50.3**

Notes: Light Truck = up to 14,000 pounds (ex: Ford F-150); Medium Truck = 14,000 – 26,000 pounds (ex: Ford F-650); Heavy Truck = 26,000 – over 33,000 pounds (ex: Tractor-trailer)
Trip Generation table based on Planning Partners assumptions and information obtained from project applicant.

1. There are 5 residences located at the dairy facility, and there would be 4 residences with the dairy expansion. For a dairy farm operation, a trip generation factor of 2 trips per day was used for both on-site residences and off-site employees.
2. The dairy currently employs a staff of approximately 19 workers, with a maximum of 13 workers on-site at any time. Since there are 5 employee residences on site, it is assumed there are 8 off-site employees driving to work per day. There would be 25 total employees with the proposed expansion, with a maximum of 16 workers on-site at any time, and 12 off-site employees driving to work.
3. One milk tanker truck visits the site 2 times daily. With the proposed expansion, the tanker truck will visit four (4) times daily.
4. There are 2 commodity truck trips from offsite per day, and there would be 4 with the proposed expansion.
5. Commercial manure hauling vehicles are on-site for approximately one (1) week annually to remove solid manure. Currently, there are approximately 815 diesel truck trips per year to export dry manure to off-site fields. Under proposed operations, there would be approximately 1,630 diesel truck trips per year to export dry manure to off-site fields. Since some trips are partial loads, the increase in diesel truck trips would not be proportional to the increase in manure exported.
6. Commercial silage trucks are on-site for approximately two (2) weeks annually during harvest to haul feed crops. Currently, there are approximately 925 truck trips per year to haul feed crops, and under proposed operations, there would be approximately 1,050 truck trips per year.
7. Approximately 16 trips by heavy duty pickups and trailers are made per week to move animals back and forth between the north and south dairy facilities. With the proposed expansion there would be no change.
8. A tallow truck (i.e., dead animal removal service) visits the site once per week, and would remain at once per week.
9. A veterinary truck visits the site twice per week.

Source: Planning Partners 2022. Project Applicant 2021.

PROJECT CONSTRUCTION AND PHASING

The proposed dairy expansion would be constructed in three to four phases over the course of 10 years. There would be approximately 16,400 cubic yards of cut and fill with construction, but all soils would be balanced on-site. Anticipated construction equipment would include scrapers, water trucks, construction crew pickups, concrete trucks, materials delivery trucks, and lifts.

DAIRY PERMITTING HISTORY

Merced County records indicate there are several old permits on file for the project site, including permits for a dairy wastewater lagoon at the existing dairy north of SR 140 (CU 2835 in 1982), additional dwellings, and legalization of the existing facility south of SR 140 (CU 3758 in 1994). The NMP indicates that the south facility has been in operation since 1915 and the north facility has been in operation since 1990.

The Central Valley Regional Water Quality Control Board (CVRWQCB) regulates the existing dairies under the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies (Order R5-2013-0122). As established by the October 2005 Report of Waste Discharge (ROWD), the State-permitted herd size for the dairies is 1,754 milk and dry cows combined[5], with regulatory review required for expansions of greater than 15 percent above this value.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates the existing dairy primarily through its Authority to Construct / Permit to Operate process. The Permit to Operate (PTO) on file for the south dairy (expiration date 12/31/2023) issued by the SJVAPCD allows 1,420 milk cows (not to exceed a combined total of 1,645 mature cows) and 1,300 support stock at the south dairy. The PTO for the north dairy allows 1,000 milk cows (not to exceed a combined total of 1,200 mature cows) and 1,060 support stock.

REGULATORY COMPLIANCE AUDIT

The Merced County Community and Economic Development Department requests regulatory compliance audits of expanding dairies prepared by the Division of Environmental Health as part of the Conditional Use Permit (CUP) evaluation process prior to project approval. The DEH staff performed an inspection of the Silva Dairy on October 27, 2021. Following remediation of a few areas of concern in the NMP and WMP, the DEH concluded that the dairy facility was in substantial compliance with the ACO on December 16, 2021.

ESTABLISHING THE PROPER "BASELINE" FOR THE PROPOSED DAIRY EXPANSION

To determine whether an impact is significant, a "baseline" set of environmental conditions is required against which agencies can assess the significance of project impacts. As established by California Environmental Quality Act (CEQA) Guidelines Section 15125(a), the existing environmental setting, usually established at the time a Notice of Preparation is issued, should normally constitute the baseline. Therefore, "the impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis, rather than

[5] The CVRWQCB regulates only mature cows (milk and dry) and does not establish any limits on calves, heifers, and other support stock.

to allowable conditions defined by a plan or regulatory framework" (Communities for a Better Environment v. South Coast Air Quality Management District (2010) 158 Cal.App.4th 1336). Essentially, prior operating permits or permit levels do not in themselves establish a baseline for CEQA review of a new project.

As set forth in Communities for a Better Environment v. South Coast Air Quality Management District, a long line of California Court of Appeals decisions has upheld this line of reasoning. These decisions have included cases where a plan or project allowed for greater development or more intense activity than had so far actually occurred, as well as cases where actual development or activity had, by the time CEQA analysis was begun, already exceeded that allowed under the existing regulations.

In the case of the Silva Dairy Farms Expansion project, existing permits from the SJVAPCD allow a total of 2,420 mature cows and 2,360 support stock in total for both facilities, and the CVRWQCB allows for 1,754 mature cows. In accordance with CEQA, the baseline herd to be used in this environmental analysis is the herd count at the time that the NOP is circulated, which is 1,605 mature cows and 1,348 support stock.

REQUIRED APPROVALS, OTHER PROCESSES, AND CONSULTATIONS

To allow for the expansion of the dairies and their consolidation for permit purposes, the applicant has submitted an application for issuance of a new Conditional Use Permit (CUP21-011) from the County. It is this action that is the subject of this Initial Study and NOP. The CVRWQCB and the San Joaquin Valley Air Pollution Control District (SJVAPCD) both regulate the existing dairies. As responsible agencies as defined by CEQA, they will be required to use the County's environmental document in their consideration of the proposed dairy consolidation and expansion. Following Merced County approval of the Environmental Impact Report and Conditional Use Permit and prior to construction of the proposed dairy expansion, the SJVAPCD and CVRWQCB will need to approve and issue the Authority to Construct / Permit to Operate permit and the Individual Waste Discharge Requirements for the project.

A listing and brief description of the regulatory permits and approvals required to implement the proposed project is provided below. This environmental document is intended to address the environmental impacts associated with all of the following decision actions and approvals.

Merced County and Other Local and Regional Agencies

Merced County

The County has the following permitting authority related to the proposed Silva Dairy Farms Expansion project:

- Preparation and approval of an Environmental Impact Report - Merced County will act as the lead agency as defined by CEQA, and will have authority to determine if the Environmental Impact Report is adequate under CEQA.

- Approval of the Conditional Use Permit - Merced County will consider the proposed dairy project as a "Conditional Use Permit." Conditional Use Permits are discretionary permits for uses of land that require special review to ensure that they are compatible with the neighborhood and surrounding land uses. They are considered more likely to affect surrounding land uses than uses permitted by right in a zoning district or those uses permitted under Administrative Permits.
- Building Permit - Merced County will require a building permit for the proposed dairy expansion project, specifically for any new structures exceeding 120 square feet.
- Demolition Permits – Merced County will require a demolition permit for each feature to be demolished, including a residence and associated septic system. Merced County DEH will approve the building demolition permit only if a separate demolition permit application for the associated septic system has been received by MCDEH.
- Animal Confinement Facility Liquid Manure Retention Pond or Settling Basin Permit (PE 1408) – The Merced County Division of Environmental Health will require a permit for the construction of new liquid manure retention ponds.
- Roadway Impact Evaluation or Roadway Impact Agreement - The Merced County Public Works Department has instituted roadway improvement conditions for new or expanding projects that would impact the County's road system. A roadway impact evaluation or a roadway impact agreement has been identified by the Public Works Department as a condition of approval to fund or complete needed improvement of adjacent roads and maintain adequate traffic circulation.
- Hazardous Material Business Plan (HMBP) - The on-site storage of any hazardous material over threshold quantities (55 gallons; 200 cu. ft.; or 500 pounds) would require a HMBP to be filed with the Merced County Division of Environmental Health (DEH). Any quantity of hazardous waste generated on-site also requires that a HMBP be filed. A revision to the Hazardous Material Business Plan for the proposed dairy expansion will be submitted to the Merced County Department of Environmental Health.
- Merced County MS4 Storm Water Permit, Order No. 2013-0001-DWQ – Since the project includes more than 5,000 square feet of new impervious surface, the applicant must implement site design, source control, runoff reduction and storm water treatment as described in the permit.

San Joaquin Valley Air Pollution Control District

- Authority to Construct / Permit to Operate – The owner or operator of any facility or activity (including agricultural activities) that emits criteria air pollutants or their precursors above certain thresholds must first obtain an Authority to Construct / Permit to Operate (ATC/PTO) from the SJVAPCD. This essentially is a single permit that is issued in two steps. An ATC application would be required of the project applicant to modify the PTO from the SJVAPCD for the proposed dairy expansion and to merge the two facilities. The applicant first obtains an ATC with specific conditions for implementation during construction; then an inspection is completed and, if all the conditions of the ATC are met during construction, the applicant is issued a PTO. All conditions of the PTO must be met during operations. Beyond the ATC and PTO, preparation of an air quality impact assessment (AQIA) would be required, in addition to compliance with other SJVAPCD regulations. According to the project applicant, the SJVAPCD permit applications were submitted to the District in May 2021.

- Conservation Management Practices (CMP) Plan – The owner or operator of any agricultural facility of 100 acres or more, or an animal confinement facility in excess of 500 mature cows (for a dairy operation), must submit a CMP plan to the SJVAPCD prior to operation for proposed new or expanded uses. The project applicant may be required to submit a modification request to their existing CMP Plan based on their proposed dairy expansion. A CMP plan requires that farm operators implement dust reduction practices for each of the following categories: harvest; unpaved roads; unpaved equipment/vehicle yards; and, other. One CMP Plan must be submitted for each crop currently grown or that will be grown within the two-year time frame of each Plan.

State of California

State agencies have the following permitting authority related to the proposed Silva Dairy Farms Expansion project:

State Water Resources Control Board

- General Construction Activity – The State Water Resources Control Board (SWRCB) has adopted a General Construction Activity Storm Water Permit for storm water discharges associated with any construction activity, including clearing, grading, excavation, reconstruction, and dredge and fill activities, that results in the disturbance of at least one acre of total land area.

Regional Water Quality Control Board - Central Valley Region

- Waste Discharge Requirements (WDR) – The owner or operator of any facility or activity that discharges, or proposes to discharge, waste that may affect groundwater quality or from which waste may be discharged in a diffused manner (e.g., erosion from soil disturbance) must first obtain a WDR permit from the CVRWQCB. The CVRWQCB regulates discharges from dairies and other confined animal facilities according to the anti-degradation requirements of the Porter-Cologne Water Quality Control Act and the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. The project applicant has submitted a Report of Waste Discharge for the proposed dairy consolidation and expansion (received by the CVRWQCB on 5/25/21). To permit the proposed consolidation and expansion, the CVRWQCB would be required to issue Individual Waste Discharge Requirements (WDR) for the operation. Coverage under the General Order requires approval and implementation of a Nutrient Management Plan for the application of wastewater and/or dry manure to land application areas, and a Waste Management Plan to ensure proper compliance with the General Order. The proponents of the dairy plan to comply with the evolving CVRWQCB Salt Control Program as well.

Federal Government

It is anticipated that no permitting from federal agencies would be required.

APPLICATION OF THE 2030 MERCED COUNTY GENERAL PLAN, MERCED COUNTY ANIMAL CONFINEMENT ORDINANCE, AND MERCED COUNTY ZONING CODE

2030 Merced County General Plan

The 2030 Merced County General Plan guides economic development, land use, agriculture, transportation and circulation, public facilities and services, natural resource, recreation and cultural resources, health and safety, air quality, water, and other matters of public interest and concern. The General Plan is intended to provide for orderly growth, and to convey the community's values and expectations for the future. An EIR for the 2030 General Plan was certified and the General Plan was adopted by Merced County in December 2013. A Draft Background Report of existing environmental conditions within the County was finalized in December 2013 with certification of the General Plan EIR. The Background Report functions as the existing setting section for the General Plan EIR. The EIR, including the Background Report as updated, is used in this Initial Study and will be used in the proposed project EIR, along with other resources, to establish the existing setting for the proposed project. The General Plan EIR will serve as the first tier of environmental analysis for the proposed project, including the evaluation of countywide and cumulative impacts. The 2030 General Plan EIR, including the Background Report, is hereby incorporated by reference pursuant to State CEQA Guidelines Section 15150 as though fully set forth herein. A copy of the General Plan, General Plan EIR, and Background Report can be obtained at the Department of Community and Economic Development, 2222 "M" Street, Merced, CA 95340. These documents are also available for download from the Merced County General Plan website at:

https://www.co.merced.ca.us/100/General-Plan

Merced County Animal Confinement Ordinance and Zoning Code

On October 22, 2002, Merced County adopted revisions to the County's Animal Confinement Ordinance (ACO). Additional revisions to the Merced County ACO and Merced County Code Chapter 18.10 (Zoning Code Agricultural Zones) were adopted on February 8, 2005 (the text of the ACO is included in Appendix A, bound separately). (The Merced County ACO is included as Chapter 18.64 of Title 18 Zoning of the Merced County Code[6].) A comprehensive update and amendment of Title 18 of the Merced County Code was adopted by the Board of Supervisors on October 22, 2019. The ACO regulates the design, construction, and operation of animal confinement facilities within the county. Because the Ordinance is regulatory rather than permissive, all existing and proposed animal confinement facilities within the county are required to comply with the terms of the Ordinance, including the proposed Silva Dairy Farms Expansion project.

Following is a summary of major ACO provisions. Copies of the complete text of the Ordinance are available from: the Merced County Division of Environmental Health, 260 East 15th Street, Merced, California 95341; the Merced County Community and Economic Development Department, 2222 'M' Street, Merced, California 95340, and on the County's Internet site at <http://www.qcode.us/codes/mercedcounty/>

[6] A comprehensive update and amendment of Title 18 (Zoning) of the Merced County Code was adopted by the Board of Supervisors on October 22, 2019. The requirements of Chapter 18.64 were unchanged by this action.

Merced County's ACO provides environmental compliance regulations that affect dairies and other animal confinement facilities in Merced County. The ACO requires that all animal confinement facilities, existing and new, complete and implement a Comprehensive Nutrient Management Plan (CNMP). For the construction of a new confined animal facility, or for modification or expansion of an existing animal confinement facility, the CNMP must be completed prior to construction. The purpose of the CNMP is to ensure a balance between manure/wastewater application and nutrient uptake by crops in order to minimize impacts to groundwater. Since adoption of the ACO, the CVRWQCB has issued new requirements for preparation of a NMP and WMP, which serve in place of the CNMP as allowed by County Code Chapter 18.64.060K.

In addition to the CNMP, the ACO includes measures designed to increase protection of surface and groundwater resources. Both liquid and dry manure are regulated by the ACO under detailed management requirements. For example, the ACO prohibits the storage or application of manure (liquid or dry) within 100 feet of a surface water body or irrigation well unless adequate protection is provided. Dry manure storage and application is regulated to prevent groundwater or surface water contamination. In addition, the liquid manure management system must include provisions for appropriate cropland application and collection of tailwater from cropland irrigated with liquid manure. The ACO requires that all off-site discharge of drainage water from cropland application areas meet the discharge and receiving water standards of the appropriate irrigation or drainage district and the CVRWQCB.

The ACO also includes design and management provisions for the construction of retention ponds and settling basins to prevent groundwater contamination, obnoxious odors, or excessive fly or mosquito breeding. The retention pond provisions of the ACO apply only to new or expanding animal confinement facilities. The ACO measures for retention ponds and settling basins include capacity requirements, maintenance guidelines, size restrictions, and minimum design standards of 10^{-6} centimeters per second seepage velocity or less.

To prevent nuisances from odors or vectors, the ACO requires animal confinement facilities to implement both odor control measures and a vector control plan. The need for specific control measures is determined by the Merced County DEH on a site-specific basis. Additionally, the ACO prohibits the location of new animal confinement facilities within one-half mile of urban areas or areas zoned for residential uses, or concentrations of rural residences. To provide additional protection from the nuisances mentioned above, the ACO generally prohibits the location of animal confinement facilities within 1,000 feet of an off-site residence, unless written permission from the off-site resident or property owner is given.

The ACO regulates the design, construction, and operation of animal confinement facilities within the County; all existing and proposed animal confinement facilities within the County are required to comply with the terms of the Ordinance, including the Silva Dairy Farms Expansion project. To ensure compliance with the provisions of the ACO, the ACO requires routine inspections of animal confinement facilities by the Merced County DEH. Enforcement of the provisions contained in the revised ACO is conducted by Merced County DEH and the Community and Economic Development Department. In addition, the ACO includes penalties for any person who violates or fails to comply with the provisions of the ACO.

TIERING FROM BOTH THE 2030 MERCED COUNTY GENERAL PLAN EIR AND THE MERCED COUNTY ANIMAL CONFINEMENT ORDINANCE EIR

"Tiering" refers to the relationship between a program-level EIR (where long-range programmatic cumulative impacts are the focus of the environmental analysis) and subsequent environmental analyses such as this subject document, which focus primarily on issues unique to a smaller project within the larger program or plan pursuant to Section 15168 of the State CEQA Guidelines. Tiering focuses the environmental review on the project-specific significant effects that were not examined in the prior environmental review or are susceptible to substantial reduction or avoidance by specific revisions in the project, by the imposition of conditions, or by other means.

In the case of the Silva Dairy Farms Expansion project, the environmental analysis will be tiered from both the EIR for the *2030 Merced County General Plan* and the EIR for the *Merced County Animal Confinement Ordinance Revision*. Since the Merced County Animal Confinement Ordinance EIR was completed, certified, and adopted on October 22, 2002, the 2030 Merced County General Plan provides an update to conclusions on the cumulative condition for all project types, including proposed and expanding dairy facility projects such as the Silva Dairy Farms Expansion project. The tiering concept will be discussed more fully in the EIR for this project.

2. ENVIRONMENTAL ANALYSIS

PURPOSE AND LEGAL BASIS FOR THE INITIAL STUDY

As a public disclosure document, this Initial Study provides local decision makers and the public with information regarding the environmental impacts associated with the proposed project. According to Section 15063 of the CEQA Guidelines, the purpose of an Initial Study is to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration.
2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.
3. Assist in the preparation of an EIR, if one is required by:
    a. Focusing the EIR on the effects determined to be significant,
    b. Identifying the effects determined not to be significant,
    c. Explaining the reasons for determining that potentially significant effects would not be significant, and
    d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.
4. Facilitate environmental assessment early in the design of a project.
5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the project.

INITIAL ENVIRONMENTAL CHECKLIST

Following each major environmental category and topic in the Initial Study, there are four determinations by which to judge the project's impact. These categories and their meanings are shown below:

"No Impact" means that it is anticipated that the project will not affect the physical environment on or around the project area. It therefore does not warrant mitigation measures.

"Less-than-Significant Impact" means the project is anticipated to affect the physical environment on and around the project area, however to a less-than-significant degree, and therefore not warranting mitigation measures.

"Less than Significant with Mitigation Incorporated" applies to impacts where the incorporation of mitigation measures into a project has reduced an effect from "Potentially Significant" to "Less Than Significant." In such cases, and with such projects, mitigation measures will be provided including a brief explanation of how they reduce the effect to a less-than-significant level.

"Potentially Significant Impact" means there is substantial evidence that an effect is significant, and no mitigation is possible.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, including several impacts that could result in a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Energy
	Geology / Soils	X	Greenhouse Gas Emissions	X	Hazards & Hazardous Materials
X	Hydrology / Water Quality	X	Land Use / Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities / Service Systems		Wildfire	X	Mandatory Findings of Significance

ENVIRONMENTAL SETTING AND EVALUATION OF POTENTIAL IMPACTS

Responses to the following questions and related discussion indicate whether or not the proposed project would have or would potentially have a significant adverse impact on the environment, either individually or cumulatively with other projects. All phases of project planning, implementation, and operation are considered. Mandatory Findings of Significance are located in Section XXI below.

I. AESTHETICS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) In non-urban areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			**X**	

ENVIRONMENTAL SETTING

The primary scenic resource within Merced County is the rural and agricultural landscape of non-urbanized areas of the county. The project site is currently in agricultural use (agricultural crops and an existing dairy). It is surrounded by agricultural uses and associated residences, and lands located in the Great Valley Grasslands State Park directly south of the project site and in the San Luis National Wildlife Refuge situated to the south and west of the dairy facilities. Due to the relatively flat topography, short- and mid-range views are limited to agricultural uses, including pasture, row crops, and orchards. Long-range views in the county feature the Sierra Nevada and Coastal mountain ranges. (Merced County 2013)

The site appearance is one of developed animal confinement facilities within a rural, agricultural setting. Viewers outside the project site are limited to motorists on perimeter roadways and residents of surrounding agricultural facilities and operations. Neither the project site nor the views to or from the site have been designated as an important scenic resource by Merced County or any other public agency. No locally designated scenic highway has been identified in the vicinity of the project area (Merced County 2013). The nearest State designated scenic highway is Interstate 5, located approximately 11.5 miles west of the project site (CA DOT 2021).

ENVIRONMENTAL EVALUATION

Question (a) Scenic vista: No Impact. Given the lack of distinctive topographical features in the project vicinity, the project site is not located in an area with scenic vistas. The agricultural-related facilities and associated residences in the vicinity are existing uses, and are considered common to the area. No designated scenic vista is visible from the project site, nor is the site visible from any nearby scenic vista. The dairy facility is an existing use, and would be considered common to the area. The proposed project would be an expansion of that existing use. Because the proposed dairy expansion would not affect a scenic vista, no impact would result with implementation of the project, and no mitigation would be required.

Question (b) Scenic resources: No Impact. No state- or locally-designated scenic highway is visible from the project site, nor is the site visible from any nearby designated scenic highway. The

nearest designated State Scenic Highway is a section of Interstate 5, approximately 11.5 miles to the west of the project site. Because the project site is not located within the viewshed of a designated scenic highway, there would be no impact to scenic resources within a scenic highway. No impact would result with implementation of the dairy expansion project, and no mitigation would be required.

Question (c) Visual character: Less-than-significant Impact. Developed agricultural uses in the vicinity range from irrigated cropland to animal confinement facilities. Though the existing dairy facilities are visible from perimeter roads and nearby recreation areas, their appearance is a common sight in rural areas of Merced County, and the visual effects of the animal confinement facilities are reasonable and expected in the context of the County's Agricultural land use designation. The proposed expanded dairy facilities would appear similar to existing uses on the project site and in the project area, and would continue to be considered common and appropriate to the region by most viewers. Since the proposed project is consistent with the existing and planned agricultural uses of the area, implementation of the project would not degrade the existing visual character of the site or surroundings. This would be a less-than-significant impact, and no mitigation would be required.

Question (d) New source of light or glare: Less-than-significant Impact. Night lighting at the facilities includes building-mounted lighting on the milking parlor and animal housing structures, and yard lighting near the office and residence at the south dairy facility. Light fixtures consist of fluorescent and LED bulbs. Some existing lighting would be eliminated with removal of the existing storage building, residence, old milking parlor, shade barns, commodity barns and corrals; the proposed dairy expansion includes new building-mounted lighting on the proposed structures. While there are residences in the vicinty of active dairy operations, which are considered sensitive receptors for nighttime light and glare, 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. Since any new lighting would be installed in compliance with County standards, the project would not create a new source of light or glare which would adversely affect day or nighttime views in the area, and no mitigation would be required.

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			**X**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			**X**	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined in Public Resources Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				**X**

ENVIRONMENTAL SETTING

The existing Silva Dairy Farms facility consists of an active dairy facility and associated cropland surrounded by similar agricultural uses and associated residences. The project site and surrounding area is designated Agricultural by the 2030 Merced County General Plan and is zoned A-1 (General Agricultural). The proposed project is situated on parcels that are not subject to a Williamson Act Contract (Data Basin 2022). Construction of the proposed facilities would result in the conversion of approximately seven acres of cropland to active dairy facilities.

According to the California Department of Conservation (DOC) Important Farmlands Map[1] of Merced County, the area of existing active dairy facilities is designated as Confined Animal Agriculture (DOC 2016). As defined by the DOC, the Confined Animal Agriculture designation includes poultry facilities, feedlots, dairy facilities, and fish farms.

The Natural Resources Conservation Service (NRCS) provides agricultural ratings for soils in the project area in the Merced County Soil Survey. The area of existing active dairy facilities at the south dairy is designated by the NRCS as Farmland of statewide importance. The area of existing active dairy facilities at the north dairy includes soils designated as Farmland of statewide importance and Prime farmland if irrigated (NRCS 2022). For a discussion of project site soil properties, Section VII, *Geology and Soils*.

There are no forest lands, timberland, or timberland zoned Timberland Production in Merced County (CDFW 2015).

[1] The Important Farmland Map uses a classification system that combines technical soil ratings from the Natural Resources Conservation Service digital soil data and current land use. The minimum land use mapping unit is 10 acres unless specified.

ENVIRONMENTAL EVALUATION

Question (a) Convert farmland to non-agricultural use: Less-than-significant Impact. The area of existing north dairy facilities is located on land that is classified by the NRCS as Farmland of statewide importance and Prime farmland if irrigated. The area of the existing south dairy facilities and the site of the proposed wastewater pond are located on land that is classified as Farmland of statewide importance. The project area is designated for agricultural use by the 2030 Merced County General Plan. As a result of project construction, approximately seven acres of existing cropland designated as Farmland of statewide importance would be converted to a new wastewater storage pond. The proposed dairy expansion would represent a continuation of existing agricultural uses, and no conversion of agricultural soils to non-agricultural uses would occur. Because the project site would be maintained in agricultural use, and because construction of the proposed facilities would not convert Prime Farmland, Unique Farmland, or Farmland of statewide importance to a non-agricultural use, a less-than-significant impact would result. No mitigation would be required.

Question (b) Conflict with zoning for agricultural use: Less-than-significant Impact. The 2030 Merced County General Plan and Zoning Ordinance designate the project area predominantly for agricultural uses. The project site is not under a Williamson Act Contract. The existing dairies are an agricultural use consistent with the General Plan and Zoning Ordinance. Adjacent properties also include agricultural uses, primarily field crops. No feature of the proposed dairy consolidation and expansion project would preclude or limit the agricultural use of adjoining parcels. Thus, the proposed project would permit the continuation of existing agricultural uses consistent with County policies, and would not conflict with adjacent agricultural and/or non-agricultural uses. A less-than-significant impact would result, and no mitigation would be required. For a discussion of project compatibility with adjacent residential uses, see Section XI, *Land Use and Planning* of this Initial Study.

Questions (c) through (e) Conflict with zoning for or loss of farmland, forest land, or timber land: No Impact. The project site is not zoned for forest land or timberland, and there are no forest or timber resources located on the project site. Thus, there would be no loss of forest land or conversion of forest land to non-forest use. The proposed facilities would not result in any change to the existing environment that could result in the conversion of farmland to non-agricultural use. Because the proposed project would not conflict with any existing forest land or timberland production zoning, and no changes associated with the project are proposed that would result in the conversion of existing farmland, forest land, or timber lands, no impact would occur. No mitigation would be required.

III. AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	**X**			
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**X**			
c) Expose sensitive receptors to substantial pollutant concentrations?	**X**			
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**X**			

Questions (a) through (d) Air Quality Impacts: Potentially Significant Impact. The proposed dairy expansion is anticipated to have potentially significant impacts from the following air emission sources that will be evaluated further in the EIR: construction-related emissions of reactive organic gases, nitrogen oxides and fugitive dust; operation-related emissions of carbon monoxide, ozone precursors, fugitive dust, and hazardous pollutants; and odors from project operations. An Air Quality Impact Assessment, including a Health Risk Assessment and an Ambient Air Quality Analysis (should it be required), will be prepared and will address emissions from: criteria pollutants; hydrogen sulfide, ammonia; particulate matter and its toxic components (e.g., aluminum, lead, manganese, nickel, etc.); and xylenes, formaldehydes, and carbon tetrachloride from Volatile Organic Compounds. The EIR will also address past and recent air quality violations, as applicable.

Naturally Occurring Asbestos

Naturally occurring asbestos is not a potential concern in the project area (USGS 2011). For more information, see Section IX, *Hazards and Hazardous Materials*.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	**X**			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	**X**			
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**X**			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?	**X**			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**X**			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**X**			

Questions (a) through (f) Biological Resource Impacts: Potentially Significant Impact. Construction of the proposed facilities and increased activities as a result of the proposed dairy expansion could result in impacts to special-status species and migratory birds, including light and glare impacts to nearby biological resources. These would be potentially significant impacts that will be evaluated further in the EIR. A reconnaissance-level biological survey of the project site will be conducted to assess existing biological conditions and potential impacts.

V. CULTURAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	**X**			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	**X**			
c) Disturb any human remains, including those interred outside of formal cemeteries?	**X**			

Questions (a) through (d) Cultural Resource Impacts: Potentially Significant Impact. Cultural Resources investigations show that Native American tribes have historically established communities near rivers and streams in Merced County. The San Joaquin River is located approximately 0.65 miles south of active dairy facilities (Google Earth 2022). From the perspective of prehistoric Native Americans, the area was an integral part of the greater San Joaquin River resource exploitation zone, and thus could have been visited or occupied seasonally or occasionally by various Native American tribes.

Implementation of the proposed project would result in site clearing, grading, and other ground disturbing activities that could adversely affect cultural resources. Significant cultural remains can also exist below the plow zone in Merced County, and construction activities in these undeveloped areas could unearth and potentially damage cultural resources. This would be a potentially significant impact that will be evaluated further in the EIR. A reconnaissance-level cultural resources survey of the project site will be conducted to determine existing archaeological and historical resource conditions and potential impacts.

VI. ENERGY	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	**X**			
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	**X**			

Questions (a) and (b) Impacts to Energy Efficiency: Potentially Significant Impact. Development of the proposed dairy facility expansion would entail energy consumption that includes both direct and indirect expenditures of energy. The proposed dairy expansion is anticipated to have potentially significant impacts related to energy efficiency that will be evaluated further in the EIR for this project.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?				**X**
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?			**X**	
iv) Landslides?				**X**
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			**X**	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			**X**	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			**X**	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			**X**	

ENVIRONMENTAL SETTING

Geology

The Silva Dairy Farms Expansion project site is located within the Great Central Valley of California. The Central Valley is composed primarily of alluvial deposits from erosion of the Sierra Nevada located to the east and of the Coastal Ranges located to the west. The elevation of the project site is approximately 70 to 80 feet above mean sea level (MSL). The topography of the project site is generally flat, with varying agricultural field elevations and directional slopes within fields to guide irrigation water.

Soils

The Natural Resources Conservation Service provides agricultural ratings for soils in the project area in the Merced County Soil Survey. Predominant soils in the proposed project area as classified by the NRCS are shown in Table 6 below.

Table 6 Silva Dairy Farms Expansion On-Site Soil Types		
Soil Type	**Acres**	**Site Limitations**
North Facility		
Grangeville loam, slightly saline-alkali, 0 to 1 percent slopes	16.1	Flooding, Depth to saturated zone
Hilmar loamy sand, slightly saline-alkali, 0 to 3 percent slopes	1.2	Not limited
South Facility		
Columbia soils, channeled, 0 to 3 percent slopes	0.1	Flooding, Depth to saturated zone
Hilmar loamy sand, slightly saline-alkai, 0 to 3 percent slope	24.1	Not limited
Traver fine sandy loam, moderately saline-alkali, 0 to 1 percent	5.8	Flooding, Depth to saturated zone
Source: National Resources Conservation Service, Web Soil Survey, 2022.		

Soil properties can also influence the development of building sites, including site selection, structural design, construction, performance after construction, and maintenance. Soil properties that affect the load-supporting capacity of an area include depth to groundwater, ponding, subsidence, shrink-swell potential, and compressibility. The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments. The project site is comprised of soils that have limitations for development that include flooding and depth to saturated zone. (NRCS 2022)

Faults and Seismicity

The project site is not located within a mapped fault zone or landslide and liquefaction zone (DOC 2015; Merced County 2013a). There is no record or evidence of faulting on the project site. The site is located in Seismic Damage Zone III, indicating a high severity level with major probable damage in the event of severe seismic activity (Merced County 2013b).

REGULATORY SETTING

Merced County regulates the effects of soils and geological constraints on urban development primarily through enforcement of the California Building Code (CBC), which requires the implementation of engineering solutions for constraints to urban development posed by slopes, soils, and geology.

ENVIRONMENTAL EVALUATION

Question (a.i) Earthquake fault: No Impact. The project site is not located within a mapped earthquake fault, and there is no record or evidence of faulting on the project site (Merced County 2013b; DOC 2015). Because no fault traces underlie the project site, no hazardous conditions would result from implementation of the project. There would be no impact.

Question (a.ii) Ground shaking: Less-than-significant Impact. As noted above, the project site is located in Seismic Damage Zone III (Merced County 2013b). Should an earthquake occur in the vicinity of the proposed project site, it could result in major damage. Dairies are categorized as a low risk use that is considered suitable in all ground-shaking zones. However, Merced County requires that all new construction comply with the seismic safety requirements of the State of California Building Code (CBC). Compliance with the CBC would reduce risks on the project site from seismic

ground shaking to levels considered acceptable for the State and region. This would be a less-than-significant impact, and no mitigation is required beyond compliance with adopted building standards.

Question (a.iii) Ground failure, liquefaction: Less-than-significant Impact. The project site is not located within a mapped liquefaction zone (DOC 2015). The proposed project would employ standard construction practices and comply with CBC requirements for the State of California. Standard design, construction, and safety procedures would limit soil liquefaction hazards to levels deemed acceptable in the state and region. Adherence with adopted building standards would avoid substantial adverse effects due to the risk of loss, injury, or death involving liquefaction or other seismic-related ground failure. This would be a less-than-significant impact, and no mitigation is required.

Question (a.iv) Landslides: No Impact. The project site is generally flat and is not located near steep slopes with unstable soils that may be susceptible to landslides. Also, the greater project area is not noted for unstable geologic formations susceptible to landslides (DOC 2015). Therefore, the project would not be exposed to potential geologic hazards, including the risk of loss, injury, or death involving a landslide. There would be no impact.

Question (b) Soil erosion: Less-than-significant Impact. Construction of the proposed dairy expansion facilities would occur in the area of existing dairy facilities and existing agricultural fields that have been previously graded. While implementation of the proposed project could result in temporary soil erosion and the loss of top soil due to construction activities, the location where the proposed dairy facilities and wastewater storage pond would be constructed is generally level from previous grading. Minimal modification to the site's existing topography or ground surface relief would be required. Also, the erosion potential for proposed project site soils is rated as slight (NRCS 2022), meaning erosion is unlikely under normal climactic conditions. This would be a less-than-significant impact, and no mitigation would be required. For a discussion of potential significant effects due to sedimentation during the construction period of the project, see Section X, *Hydrology and Water Quality*.

Question (c) Unstable geologic unit: Less-than-significant Impact. Construction of the expanded dairy facilities and wastewater storage pond could increase loads on the project site that could cause soil settlement. The project area is not noted for unstable geologic formations susceptible to landslide or ground failure, nor is the project area noted for subsidence[2] (Merced County 2013c; NRCS 2022). The topography surrounding the active dairy facilities and agricultural field elevations is generally level. Any potential effects from unstable or expansive soils would be minimized through compliance with the Merced County and CBC building standards and additional corrective engineering measures that would be required to be documented during the building permit process, including the submittal of a soils report. For these reasons, the proposed dairy expansion project would not result in soil instability and subsequent landslide, lateral spreading, liquefaction, or collapse. This would be a less-than-significant impact, and no mitigation would be necessary.

[2] Subsidence is the settling or sinking of land. In Merced County, this generally results from groundwater extraction and drawing down of the groundwater table.

Question (d) Expansive soil: Less-than-significant Impact. Expansive soils are soils that shrink and swell in response to changes in moisture. These volume changes can result in damage over time to building foundations, roads, underground utilities, and other structures, if they are not designed and constructed appropriately to resist the changing soil conditions. The soils that comprise the proposed project site are not limited for development by shrink-swell potential (NRCS 2021). The Merced County building code requires a soils report for most non-residential structures within Merced County, and additional corrective engineering measures are required as part of the design for proposed facilities. Further, the proposed dairy expansion facilities would not be used for human habitation. Compliance with the CBC requirements and additional corrective engineering measures documented during the building permit process would maintain risks on the project site from expansive soils at levels considered acceptable for the State and region. This would be a less-than-significant impact, and no additional mitigation would be required beyond compliance with adopted standards and County requirements.

Question (e) Soils adequately support septic system: Less-than-significant Impact. On the Silva Dairy Farms project site, there are individual septic systems that serve the on-site residence and dairy facilities. No new septic systems are included in the proposed project. The installation or modification of any future on-site septic system would require compliance with Merced County performance standards and approval by the DEH (MCC, Chapter 18.40, Performance Standards). These standards would require that the septic system be properly sized and designed with respect to on-site soil capabilities that would ensure the safe treatment and disposal of wastewater and the maintenance of groundwater quality. Because the proposed project does not include the installation of new septic systems, and modification to any existing systems would meet Merced County performance standards and permit conditions, potential impacts would be minimized to a less-than-significant level. This would be a less-than-significant impact, and no mitigation would be necessary.

Question (f) Paleontological resource / unique geologic feature: Less-than-significant Impact. According to available information, the project site is not located in an area known to have produced significant paleontological resources (UCMP 2021), nor are there any unique geologic features. Therefore, project construction would not result in the destruction or degradation of paleontological resources or unique geological features. This would be a less-than-significant impact, and no mitigation would be required.

VIII. GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**X**			
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases	**X**			

Questions (a) and (b) Greenhouse gas emissions: Potentially Significant Impact.
Construction and operation of the dairy expansion project would result in greenhouse gas emissions from direct and indirect sources. The proposed dairy expansion is anticipated to have potentially significant impacts from greenhouse gases (including methane) that will be evaluated further in the EIR for this project.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				**X**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			**X**	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?				**X**
h) Create significant nuisance conditions to the public or the environment through the generation of insects due to project operations?	**X**			

ENVIRONMENTAL SETTING

Animal agriculture, such as a dairy, results in the production of copious amounts of manure. Animal wastes contain zoonotic pathogens, which are viruses, bacteria, and parasites of animal origin that cause disease in humans.

Silva Dairy Farms does not use a pest control service. The dairy facility stores diesel fuel for agricultural use in a 400-gallon aboveground tank. There is a permitted diesel-fired emergency standby generator on-site. Hazardous materials used in dairy operations are stored in the milking parlor pump room, on the south side of the milking parlor, north of the existing commodity barn, and east of the old milking parlor. As reported by DEH during the preliminary application review, the facility has a current Hazardous Materials Business Plan (HMBP) (accepted on June 10, 2021), which will need to be updated each year.

There are no schools located within one-quarter mile of the proposed project site. The nearest school, Merquin Elementary School, is located approximately 2.25 miles east-northeast of the project site (Google Earth 2022).

According to the records search of federal, state, and local environmental databases (pursuant to Government Code Section 65962.5), the project site does not contain any history of hazardous site contamination by hazardous substances (CA DTSC 2022).

The Gustine Municipal Airport lies approximately 5 miles southwest of the proposed project site; Ahlem Farms Airport, a private aircraft landing strip, is located approximately 5.25 miles to the north-northeast (tollfreeairline.com 2021). The project site is not located within any Airport Influence Area as indicated in the Merced County Airport Land Use Compatibility Plan (Merced County ALUC 2012). In Merced County, freeways and major county roads, including those in the vicinity of the project site, would be used as primary evacuation routes in the event of a natural hazard, technological hazard, or domestic security threat.

According to California Fire and Resource Management Program Fire Hazard Severity Zone map, the proposed project area is within the Local Responsibility Area (LRA), with an Unzoned designation. The threat of wildfire hazard in that area is determined to be unlikely (CAL FIRE 2007).

The proposed project site is not in an area identified by the California Geological Survey as having soils that are likely to contain naturally occurring asbestos (USGS 2011). Therefore, no naturally occurring asbestos is expected in on-site soils that could be disturbed during construction; this issue will not be discussed further.

REGULATORY SETTING

Both federal and state laws include provisions for the safe handling of hazardous substances. The federal Occupational Safety and Health Administration (OSHA) administers requirements to ensure worker safety. Construction activity must also be in compliance with the California Occupational Safety and Health Administration regulations.

The Merced County Division of Environmental Health (DEH) is the lead agency for the enforcement of State Hazardous Waste Control laws and regulations. The DEH maintains standards and guidelines relating to the proper handling and storage of hazardous materials. Facilities that handle and store considerable amounts of hazardous materials (55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gas) are required to implement a Hazardous Materials Business Plan. The HMBP must include the following: an inventory of all hazardous materials handled at the facility, floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures. The DEH also maintains minimum design standards relating to the operation and maintenance of on-site septic systems.

ENVIRONMENTAL EVALUATION

Questions (a) and (b) Use and/or accident conditions related to hazardous materials: Less-than-significant Impact. Construction of the proposed project would include the use, storage, transport, and disposal of oil, diesel fuel, paints, solvents, and other hazardous materials. If spilled, these substances could pose a risk to the environment and to human health. Both federal and state laws include provisions for the safe handling of hazardous substances. According to federal health and safety standards, applicable federal OSHA requirements would be in place to ensure worker safety. Construction activity must also be in compliance with the California Occupational Safety and Health Administration regulations (Occupational Safety and Health Act of 1970).

Nutrient-rich process water would continue to be used to fertilize on-site crops, thereby precluding the need for large amounts of chemical fertilizers, and minimizing the potential risk of release within the project area and region. Similarly, dry manure would continue to be accumulated on-site, and then exported and applied to off-site fields not owned by the dairy operator as fertilizer and soil amendments in place of chemical fertilizers.

Previous evaluations of animal confinement facility operations conducted by Merced County (Merced County Animal Confinement Ordinance Revision DEIR, February 2002; Vander Woude Dairy FEIR Staff Presentation to Planning Commission, March 30, 2004) indicate that the following activities and operations at dairies would not result in the release of hazardous substances to the environment:

Potential Source	Explanation	Information Source
Supplements in cattle feed	No complete exposure pathways	Animal Confinement Ordinance DEIR, February 2002, pps. 5-141 to 5-145
Genetically modified crops (grown as forage for dairy animals)	Cattle digestive process breaks down components in feeds. This includes the breakdown of protein into amino acids and genetic material into nucleic acids that are then excreted. Incomplete exposure pathway **GENETICALLY MODIFIED CROPS ARE NOT GROWN AT THE PROJECT SITE**	Vander Woude Dairy FEIR, January 2004, pps. 3-42 to 3-43; Staff Presentation to Planning Commission, March 30, 2004, slides 19 and 25
Recombinant Bovine Growth Hormone	bST is a complex protein that is immediately broken down into small, inactive amino acids and peptides and rendered ineffective when it enters a cows digestive system; Incomplete exposure pathway **NOT USED AT THE DAIRY**	Vander Woude Dairy FEIR, January 2004, pps. 3-42 to 3-43; Staff Presentation to Planning Commission, March 30, 2004, slides 19 and 25
Antibiotics	Use of antibiotics is prohibited for the milking herd **NO ANTIBIOTICS ARE USED EXCEPT FOR SICK ANIMALS SEPARATED FROM THE HERD**	Vander Woude Dairy FEIR, January 2004, pps. 3-42 to 3-43; Staff Presentation to Planning Commission, March 30, 2004, slides 19 and 25

No proposed operation or facility of the Silva Dairy Farms would alter the results of these previous evaluations regarding the release of hazardous substances to the environment from dairy operations.

Both construction and operation activities must be in compliance with the California OSHA regulations. The dairy facility uses and stores diesel fuel, motor oil, hydraulic oil, and other petroleum products associated with the operation of heavy equipment. The dairy facility also uses and stores cleaning and maintenance materials that may be categorized as hazardous. The types and quantities of these materials are documented in the HMBP prepared for this facility and filed with DEH. Any updates to the HMBP will need to be filed with DEH. Compliance with California OSHA requirements and the requirements of the HMBP would reduce the risk of hazards related to the routine transport, use, or disposal of hazardous materials to a less-than-significant level. The risk of hazards to the public or to environmental conditions related to accident conditions would also be reduced to a less-than-significant level.

The proposed project includes the demolition of existing structures on the project site; these structures could contain lead-based paint or asbestos. Lead-based paint has been banned for many uses since 1978; asbestos has been banned for many uses since 1989. The NMP prepared for the project reflects that the north dairy has been in operation since 1990, and that the south dairy has been in operation since 1915. The Silva Dairy Farm structures were permitted by Merced County in 1994, and constructed thereafter; it is possible that the facilities were constructed prior to the sunset dates. While the existing structures may have been constructed after the sunset dates for lead-based paint and asbestos, the demolition of the structures would require permits from both the local Air Pollution Control District (APCD) and Merced County. The SJVAPCD permit program includes survey and notification requirements prior to beginning construction, work practice standards, and disposal requirements. The Merced County DEH demolition permit requires approval from the SJVAPCD and compliance with asbestos abatement measures prior to demolition. Compliance with the requirements of the permits would reduce this potential impact to a less-than-significant level.

For a discussion of impacts to water quality as a result of increased export of dry manure and associated pathogens and residual contaminants, see Section X, *Hydrology and Water Quality* of this Initial Study.

Because the routine transport, use, and disposal of these materials are subject to local, state, and federal regulations, this impact would be considered less than significant. The risk of hazards to the public or to environmental conditions related to accident conditions would also be reduced to a less-than-significant level, and no mitigation would be required.

The following Department of Toxic Substances Control (DTSC) standard recommendations for analysis would not apply to the proposed dairy expansion project: (1) since the project does not propose intrusive activities in a roadway, there would be no potential for disturbance of aerially deposited lead from tailpipe emissions; (2) the project site has not been used or suspected to have been used for mining activities, and no on-site mine waste is anticipated; (3) there would be approximately 16,400 cubic yards of cut and fill with construction, but all soils would be balanced on-site; there would be no risk to sensitive uses from contaminated soils; and (4) while the project site has been used for agricultural activities, the DTSC guidance for proper investigation of organochlorinated pesticides applies to proposed new and expanded school sites or other projects where a new land use could result in increased human exposure, especially residential use. Therefore, these issues would not apply to the Silva Dairy Farms Expansion project, and no further analysis would be necessary. Additional DTSC standard recommendations are addressed in this Hazards and Hazardous Materials analysis.

Question (c) Hazardous emissions or materials near a school: No Impact. The nearest school, Merquin Elementary School, is located in Stevinson approximately 2.25 miles east-northeast of the project site. Therefore, the proposed dairy expansion would not result in hazardous emissions or handle hazardous waste within 0.25 miles of an existing or proposed school, and no impact would result.

Question (d) Included on list of hazardous materials sites: No Impact. According to queries of the GeoTracker and Envirostor Data Management Systems, the dairy expansion project site would not be located on a site identified on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 (CA DTSC 2022). Therefore, implementation of the project would not create a significant hazard to the public or the environment. No impact would result, and no mitigation would be required.

Question (e) Safety hazard or excessive noise near airports: No Impact. There are no existing public or private airports within two miles of the proposed project site; the Gustine Municipal Airport is the closest public airport, located approximately 5 miles southwest of the project site. Ahlem Farms Airport, a private airstrip, is located approximately 5.25 miles to the north-northwest. The project site is not located within any Airport Influence Area as indicated in the Merced County Airport Land Use Compatibility Plan (Merced County ALUC 2012). Because the project site is not located within an area regulated by an airport land use plan, and there are no public or private airports within 2 miles of the project site, the project would not result in a safety hazard or excessive noise for people residing or working in the project area due to aircraft over-flight. There would be no impact, and no mitigation would be required.

For an analysis of the potential noise effects related to construction and operation of the proposed project, see Section XIII, *Noise*.

Question (f) Impair or interfere with an adopted emergency response/evacuation plan: Less-than-significant Impact. The existing Silva Dairy Farms operation consists of two separate dairy facilities located on the north and south side of State Route (SR) 140 at the intersection of Edminster Road in the Stevinson area of the County. State Route (SR) 165 lies to the east, and SR 140 runs between the north and south dairy facilities; both of those state routes are designated as arterial roadways by Merced County's Circulation Diagram (Merced County 2013d). They provide regional access to the site, and would be used as primary evacuation routes in the event of emergency. The proposed project does not include any modification of existing area roadways or intersections, and the project would not add significant amounts of traffic that would interfere with emergency response or evacuation. Therefore, the proposed project would result in a less-than-significant impact, and no mitigation would be required.

Question (g) Exposure to risk involving wildland fires: No Impact. The Fire Hazard Severity Zone map for Merced County indicates that the project site and surrounding area is located in the Non-Wildland / Non-Urban Severity Zone (Merced County 2013e). The project site is designated as a Local Responsibility Area – Unzoned in an area not considered a fire risk (CAL FIRE 2007). Therefore, no hazard would occur related to risk of loss, injury, or death due to wildland fire with implementation of the proposed project. There would be no impact, and no mitigation would be required.

Question (h) Nuisance Insects: Potentially Significant Impact. While the existing agricultural character of the project vicinity tends to minimize incompatibility to existing uses, implementation of the Silva Dairy Farms Expansion project could introduce an additional source of flies and other insects in the area of the adjacent residences. In efforts to minimize agricultural nuisances, there is a required minimum setback between new or expanded confined animal facilities and individual off-site rural residences to 1,000 feet, and the construction of new off-site dwellings is prohibited within 1,000 feet of an existing animal confinement facility. For the Silva Dairy Farms Expansion project, the closest off-site residences are located approximately 700 feet and 895 feet west of active animal facilities at the north dairy (see Figure 7). Because of the proximity of adjacent residences, and because expanded operations at the dairy could result in an increase in nuisance intensity and frequency, the proposed project may be incompatible with existing uses in the project vicinity. This would be a potentially significant impact, and will be evaluated further in the EIR for this project.

X. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	**X**			
b) Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**X**			
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	**X**			
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	**X**			
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	**X**			
(iv) impede or redirect flood flows?	**X**			
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**X**			
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**X**			

Questions (a), (e), and (f) Impacts to water quality: Potentially Significant Impact. Dairy facilities pose a number of potential risks to water quality, primarily related to the amount of manure and process water that they generate. Manure and process water from dairy facilities can contribute pollutants such as nutrients (nitrogen), ammonia, organic matter, sediments, pathogens, hormones, antibiotics, and total dissolved solids (salts). These pollutants, if uncontrolled, can cause several types of water quality impacts, including contamination of drinking water, impairment of irrigation systems, and impairment of surface waters. While the existing and proposed waste management systems would act to prevent groundwater contamination, the operation of the Silva Dairy Farms Expansion project may result in degradation of groundwater resources and potential adverse effects to surface water quality. In addition, increased solid manure exports to off-site fields associated with the proposed dairy expansion could result in off-site impacts to water quality. These potentially significant impacts will be evaluated further in the EIR for the proposed project. The EIR will include a water quality characterization and impacts analysis based on water quality data available from both on-site and nearby wells, and nearby water wells.

Question (b) Decrease groundwater supplies: Potentially Significant Impact. Groundwater from on-site irrigation wells and surface water resources from the Merquin Canal. The proposed expansion project includes the continued use of existing water resources. A replacement dairy domestic well would be drilled west of the existing milking parlor to replace the existing well that must be destroyed prior to construction of Freestall Barn 8. Water usage for the dairy could increase with the proposed dairy expansion. Project impacts to groundwater levels will be evaluated further in the EIR for the proposed project.

Question (c) Substantially alter the existing drainage pattern: Potentially Significant Impact. The project involves the construction of additional dairy facilities both within the footprint of the existing facility, and within approximately seven acres of cropped areas adjacent to the south dairy facility. Stormwater runoff during the construction period could result in erosion, siltation, and sedimentation of waterways draining the site. Project impacts due to surface drainage and runoff during construction will be evaluated further in the EIR for the proposed project.

Question (d) Flood hazard, tsunami, or seiche zones: Potentially Significant Impact. Because the project site is located distant from the sea or any large reservoir, the project would not be located in an area subject to inundation hazards from seiche or tsunami. The Federal Emergency Management Agency provides information on flood hazards for communities based on its Flood Insurance Rate Maps. According to Federal Emergency Management Agency (FEMA 2008), the western portion of the project site is located within Flood Zone X, which is defined as an area with an annual flooding probability of 0.2 percent, outside of the 100-year flood zone. The eastern portion of the project site is located within Flood Zone A, an area subject to inundation by a 100-year storm, but for which a Base Flood Elevation has not been established. Dairies located within flood hazard zones could be damaged by floodwaters or be required to shut down for extended periods. Flood waters could mingle with wet or dry manure storage areas at the facilities, cause releases of process water from ponds, and/or come into contact with freshly applied manure on fields, impacting surface water quality. Project impacts due to flooding on or off site as a result of project implementation will be evaluated further in the EIR for the proposed project.

XI. LAND USE AND PLANNING	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				**X**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**X**			

Question (a) Divide an established community: No Impact. The land surrounding the project site and in the vicinity is primarily developed for agriculture. Lands located in the Great Valley Grasslands State Park and the San Luis National Wildlife Refuge are located south and west of the dairy facility. Scattered rural residences are located in the general area of the project; most are associated with agricultural operations. Other than scattered rural residences, there is no established community in the project area. Because the project could not divide a community, no adverse effects would result, and no mitigation would be necessary.

Question (b) Land use conflicts: Potentially Significant Impact. Existing land uses on the project site include an existing dairy facility and irrigated cropland. There are several off-site residences located within the windshed of the dairy; the closest two lie approximately 700 feet and 895 feet west of active animal facilities at the north dairy (see Figure 7). While the existing agricultural character of the vicinity would tend to minimize incompatibility to existing uses in the project vicinity, implementation of the dairy expansion project could introduce an additional source of odors, flies, and other insects in the area of these residences. Because of the proximity of the adjacent residences, the proposed project may be incompatible with existing uses in the project vicinity. This would be a potentially significant impact to be evaluated further in the EIR.

XII. MINERAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

ENVIRONMENTAL SETTING

The majority of the land area of Merced County lies within the Central Valley physiographic province, which is dominated by significant amounts of overburden soils that are alluvial in nature. Less than 30 percent of Merced County lies in higher topographic areas, away from the alluvium and closer to bedrock conditions. Very few traditional hard rock mines exist in the county. (Merced County 2013f)

There are no known areas with a high likelihood of known significant sand and gravel resources in the vicinity of the proposed project. No significant Mineral Resource Zones or mineral resource production areas are located in or adjacent to the project area. The western portion of Merced County includes the following aggregate resource areas: Garzas Creek, Basalt Hill, Los Banos Valley, and Los Banos Creek Fan. According to the 2030 Merced County General Plan Background Report (Figure 8-10), the project site is not located in an area of sand and gravel resources (Merced County 2013f). The California Geological Survey indicates that the proposed project is not located within an Aggregate Production Area (CGS 2018).

ENVIRONMENTAL EVALUATION

Questions (a) and (b) Loss of mineral resources of value and/or delineated on land use plans: No Impact. No important mineral deposits, significant Mineral Resource Zones, or existing or previous mines are located on the project site or in the surrounding area. Because there are no mineral resources or resource protection zones in the vicinity of the project site, there would be no loss of availability of known mineral resources. No adverse effect would result, and no mitigation would be required.

XIII. NOISE	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b) Generation of excessive ground-borne vibration or ground-borne noise levels?			**X**	
c) For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			**X**	

ENVIRONMENTAL SETTING

Characteristics of Noise

Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent how humans are more sensitive to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise-sensitive receptor of concern.

Many ways are available to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each

other and are normally interchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Existing Noise Environment

The project site is located in an agricultural area with surrounding rural residential uses, agricultural operations, and State Park and wildlife refuge lands. The primary existing noise sources in the project vicinity are residential sources, agricultural operations, and traffic on Edminster Road and SR 140. Other than traffic noise, the predominant noise sources at the proposed project site are characterized as low-intensity residential and agricultural uses, consisting of noise from activities at surrounding residences and infrequent cultivation and harvesting.

Noise sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, churches, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds and parks are considered noise-sensitive uses. The noise level experienced at a sensitive receptor depends on the distance between the source and the receptor, the presence or absence of noise barriers and other shielding devices, and the amount of noise attenuation (lessening) provided by the intervening terrain. Existing sensitive land uses within the project area include single-family residences.

The Gustine Municipal Airport lies approximately five miles south of the proposed project site; Ahlem Farms Airport, a private aircraft landing strip, is located approximately 5.25 miles to the northeast (tollfreeairline.com 2022). The project site is not located within any Airport Influence Area as indicated in the Merced County Airport Land Use Compatibility Plan (Merced County ALUC 2012).

REGULATORY SETTING

The 2030 Merced County General Plan Noise Element provides a basis for local policies to control and abate environmental noise, and to protect the citizens of Merced County from excessive noise exposure (Merced County 2013). The County also enforces its Noise Ordinance (Chapter 10.60, *Noise Control*) in the County Code. This ordinance contains noise level standards for residential and non-residential land uses. Specifically, the County Code sets 65 dBA Ldn[3] and 75 dB Lmax[4] standards for residential property, with standards applicable to nonresidential properties 5 dB higher (Chapter 10.60.030 (A)). The County Code (Chapter 10.60.050(A)(2)) further exempts noise sources associated with agricultural activities or agricultural operations on agricultural property from sound level limitations.

According to County Code (Chapter 10.60.040(B)(5)), construction activities that include the operation of any tools or equipment used during construction, drilling, earth moving activities, excavating, or demolition are prohibited from 6:00 p.m. to 7:00 a.m. the following day on weekdays. They are also prohibited at any hour during weekend days or legal holidays, except for emergency work.

[3] Ldn = Day/night average sound level during 24-hour day weighted by a factor of three.

[4] Lmax: The highest root-mean-square (RMS) sound level measured over a given period of time.

ENVIRONMENTAL EVALUATION

Potential noise impacts can be categorized as those resulting from construction and those from operational activities. Construction noise would have a short-term effect; operational noise would continue throughout the lifetime of the project. Construction associated with the development of the project would increase noise levels temporarily during the construction of the proposed dairy expansion facilities. Operational noise associated with the proposed dairy facility would occur 24 hours per day, 365 days per year.

Question (a) Generate a noise increase in excess of local plan standards: Less-than-significant Impact.

Construction Noise

Construction of the Silva Dairy Farms Expansion project may result in a temporary increase in ambient noise levels. Construction of the proposed dairy facilities would occur in as many as four phases and would take up to 10 years to complete. Construction activities would be considered an intermittent noise impact throughout the construction period of the project. These activities could result in various effects on sensitive receptors, depending on the presence of intervening barriers or other insulating materials. Most construction would take place within the existing facility footprint, while the proposed wastewater storage pond would be located within an existing cropped area.

Based on typical construction equipment noise emission levels (FHWA 2017), noise levels produced during construction could potentially exceed those determined to be acceptable for parcels not zoned for residential land use by the 2030 General Plan (80 dBA Lmax at the property line) (Merced County Code Section 18.40.050 (C)(3). However, Merced County Code Section 18.40.050 (E) acknowledges there may be temporary, elevated noise levels during construction. No feature of the project would cause noticeable levels of ground borne vibration or noise. Because construction activities would be temporary and would not likely result in noise levels that exceed General Plan standards for agricultural areas, construction noise would be considered to be a less-than-significant impact, and no mitigation would be required.

Operational Noise

Situated in a rural area removed from significant noise sources, the noise environment within the project site is dominated by traffic noise from trucks and vehicles on adjacent and private roadways, and operational noise from agricultural uses on the site and on adjacent farms. Existing operational noise is associated with on-site dairy operations, crop cultivation, and associated agricultural operations. Most noise events are associated with tractor and equipment operation. With project implementation, there would be little increase in existing ambient noise levels. No increases in noise from new large machinery or other noise-producing activities would occur, and no activities different from those currently occurring are proposed. However, some permanent increases associated with noise generated by additional vehicle and truck trips would occur. Generally, a doubling of traffic is necessary to result in a perceptible change in noise levels. Daily trips associated with the proposed project are estimated to increase from 37.8 average daily trips (ADT) to approximately 50.3 ADT. Since the increase in daily trips would be minimal, traffic noise would not exceed noise levels determined to be acceptable for agriculture by the Merced County General Plan, even with the addition of new dairy traffic. Also, noise levels in the vicinity of the project site would continue to comply with the Merced County Code noise standard of 70 dB Ldn for agricultural uses

(Merced County Code Section 18.40.050 (C)(3)). This would be a less-than-significant impact, and no mitigation would be required.

Operation of the facility would not generate noise levels that would conflict with or exceed standards established by the Merced County General Plan Noise Element, Noise Ordinance, and Right-to-Farm Ordinance. This would be a less-than-significant impact, and no mitigation would be required.

Question (b) Ground-borne vibration or noise: Less-than-significant Impact. Construction activities associated with implementation of the proposed Silva Farms Dairy Expansion project are not expected to result in excessive groundborne vibration or groundborne noise levels. Additionally, any increases in groundborne vibration during construction activity would be temporary and would cease to occur after project construction is completed. No permanent noise sources that would generate excessive groundborne vibration or groundborne noise levels would be located or operated within the project area. Therefore, impacts would be less than significant, and no mitigation would be required.

Question (c) Excessive noise levels near airports: Less-than-Significant Impact. The Gustine Municipal Airport lies approximately five miles south of the proposed project site; Ahlem Farms Airport, a private aircraft landing strip, is located approximately 5.25 miles to the northeast. Because the project site is not located within any Airport Influence Area, and agricultural uses are considered compatible uses with private airfield operations, workers at the proposed project site would not be exposed to excessive noise levels. A less-than-significant impact would result, and no mitigation would be required.

XIV. POPULATION AND HOUSING	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			**X**	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**

ENVIRONMENTAL EVALUATION

Question (a) Induce unplanned population growth: Less-than-significant Impact. The Silva Dairy Farms Expansion project site is located in a region developed with orchards, row crops, and other animal confinement operations, including other dairies. It would not result in a new or different type of use for the area, nor would the project create or improve any infrastructure serving the larger project area or region. The proposed project is consistent with Merced County land use plans, and no modification of land use and development policies would be necessary to accommodate the proposed dairy expansion project.

With implementation of the proposed project, the number of employees would increase from approximately 19 to approximately 25 workers. In February 2022, the labor force in Merced County totaled 116,400 persons, with an official unemployment rate of 09.3 percent (or 10,800 unemployed persons) (EDD 2022). Any future increased labor needs of the project could be accommodated by this existing workforce within Merced County and would not require the importation of workers. Similarly, any additional housing demands caused by future project employees could be accommodated by existing and planned housing resources within Merced County.

The proposed project would not result in any meaningful increase in the County's population; implementation of the project would not result in the exceedance of population projections or result in any significant growth inducing effects. The proposed dairy expansion project would not be expected to result in substantial new growth in the project vicinity. Therefore, the proposed project would not result in substantial direct or indirect growth inducement, and no adverse impacts would occur. No mitigation would be required.

Question (b) Displace substantial numbers of people or housing: No Impact. There are a total of five residences located at the Silva Dairy Farms facility; four residences are located at the north dairy facility, and one residence is located at the south dairy facility. The proposed project would result in the demolition of one of the existing residences; no new housing is proposed. There would be no significant impact to available housing units in Merced County. In July 2019, the last year for which data is available, there were 86,388 housing units available (US Census Bureau 2022). Implementation of the project would not displace substantial numbers of people or existing housing units. There would be no impact, and no mitigation would be required.

XV. PUBLIC SERVICES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives of any of the public services:				
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?			**X**	
d) Parks?			**X**	
e) Other facilities?			**X**	

ENVIRONMENTAL SETTING

Public services provided in the project area include fire, police, hospital, school, library, and park services.

The Merced County Fire Department serves the unincorporated areas of Merced County. The Merced County Stevinson Fire Station 97 is located at the corner of 3rd Avenue and Lander Avenue/Highway 165 in Stevinson, approximately 2.5 miles east-northeast of the proposed project site. The Merced County Sheriff's Department provides police protection in the unincorporated areas of Merced County. Three hospitals provide medical services to county residents; Memorial Hospital in Los Banos is nearest to the project site. The nearest school, Merquin Elementary School, is located in Stevinson approximately 2.25 miles east-northeast of the project site. Library services are available at the Irwin-Hilmar Public Library in Hilmar. The nearest park is Merced County's Hagaman Park, located approximately 4.25 miles northeast of the project site, in the community of Hilmar; park services are discussed in more detail in *Section XVI, Recreation.* Utility services are discussed in more detail in *Section XIX, Utilities and Service Systems.*

ENVIRONMENTAL EVALUATION

Questions (a) through (e) New or physically altered governmental public service facilities: Less-than-significant Impact. Implementation of the proposed dairy expansion would include construction on the project site of new dairy housing, storage areas, and support buildings. The project site is in an area with rural levels/standards of fire protection. In response to this common condition in agricultural areas of the county, the Merced County Fire Department generally imposes requirements for on-site water storage for fire protection, and compliance with the following California Fire Code measures:

1) Fuel Storage: The applicant shall provide information on on-site fuel storage, amounts, types of fuel and oil, storage container sizes, mobile/stationary, dispensing equipment, and Spill Prevention Control and Countermeasure (SPCC) documents.
2) On-Site Water: The applicant shall describe on-site water storage containment, amounts of water, whether Fire Department connections are in place, apparatus access to flush tank, or other onsite water. [California Fire Code (CFC) Sec. 507.1]
3) Fire Department Access: All driveways accessing the parcel shall be surfaced with an approved all weather driving surfacing material. The roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities. Fire apparatus access roads shall have an unobstructed width of

not less than 20 feet except for approved security gates in accordance with Section 503.6 and an unobstructed vertical clearance of not less than 13 feet 6 inches. (CFC 503.2.1)

4) Address Identification: New and existing buildings shall have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. (CFC 505.1)
5) Emergency Building Access: Knox Box appliance shall be required for emergency building access; Knox padlocks shall be required for gates, or electric key override for electric gates.

Compliance with above standard measures would be required as conditions of approval, and would reduce fire risk and hazard to levels found acceptable by the Merced County Fire Department. Therefore, there would be no increase or change in the demand for fire service that would require the provision of new or physically altered fire facilities.

No feature of the project would result in the need for new or altered facilities for police protection, schools, parks, libraries, or health services. Because no new residences would be constructed, and only approximately six additional employees would be required, no substantial increase in population is expected to result from the proposed project. No feature of the proposed project would pose unusual police protection demands. Therefore, there would be no increase in the demand for public services such as police facilities, schools, parks, libraries, or health services that would require the construction of new facilities or physically altered facilities.

The proposed dairy expansion would continue to be served by heavy trucks (milk tankers, commodity deliveries), and other vehicles. Daily trips by all classes of vehicles would increase from an estimated 37.8 to 50.3 average daily trips, with an overall increase of 12.6 daily trips, including 6.6 daily heavy truck trips (see Table 4 on page 21 of this Initial Study). The Merced County Department of Public Works, Road Division, has reviewed the proposed project and has identified the following conditions of approval:

1. The applicant shall enter a Roadway Impact Agreement with the Merced County Department of Public Works, Road Division to mitigate potential effects to roadway integrity from heavy truck traffic prior to issuance of a building permit. As part of the Agreement, a roadway impact evaluation shall be prepared to assess the potential impact that the project may have on Merced County roadways. The evaluation and/or agreement will determine an amount for the applicant to pay to the Merced County Road Fund to compensate the County for the increased cost of maintaining the County roadways impacted by the applicant's project.
2. The Merced Department of Public Works, Roads Division will require Right-of-Way Dedication by the applicant to fulfill the 60-foot ultimate right-of-way for Edminster Road fronting the property. Edminster Road has an existing 40-foot right-of-way, and the owners shall dedicate an additional 10 feet of right-of-way along both sides of the Edminster Road frontage of the property.

Implementation of these Conditions of Approval through the Merced County Community and Economic Development Department would result in a less-than-significant impact, and no additional mitigation would be required.

Because the project would not result require the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, the proposed project would result in a less-than-significant impact. No mitigation would be required.

XVI. RECREATION	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated?				**X**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				**X**

ENVIRONMENTAL SETTING

Merced County contains several federal, State, and county parks and recreation areas. Aside from parks in the county, there are many public open space areas as well.

- There are three National Wildlife Refuges located in Merced County: the Merced National Wildlife Refuge, the San Luis National Wildlife Refuge, and the San Joaquin River National Wildlife Refuge. Lands located in the San Luis National Wildlife Refuge are located approximately 0.1 miles south and west of the dairy facility. (USFWS 2022)
- The California Department of Fish and Game operates seven wildlife areas in Merced County. The North Grasslands Wildlife Area is located approximately 1.75 miles west of the proposed project site. (CDFW 2011).
- The State of California Department of Parks and Recreation operates six parks in Merced County. The nearest state park is the Great Valley Grasslands State Park, approximately 0.1 miles to the south of the project site. (CDPR 2022).
- The Merced County Parks and Recreation Department maintains a variety of parklands throughout the county. County maintained parklands are divided into four basic classes: regional parks, community parks, dual-use parks, and neighborhood parks. There are a total of 21 parks owned and/or operated by Merced County; Hagaman Park is located approximately 4.5 miles to the northeast of the project site. (Merced County 2013g)

ENVIRONMENTAL EVALUATION

Questions (a) and (b) Increase park use, construct or expand recreational facilities: No Impact. While no existing public recreational facilities are located on the project site, there are several park and open space resources in the vicinity. Implementation of the project would not directly affect the provision or demand for any recreation. There would be no increase in the use of existing neighborhood or regional parks or other recreational facilities that would cause or accelerate the physical deterioration of such facilities. The proposed project does not include recreational facilities, nor does it require the construction or expansion of such facilities. Thus, no significant adverse impacts to recreation would occur with implementation of the proposed Silva Dairy Farms Expansion project, and no mitigation would be required.

XVII. TRANSPORTATION	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			**X**	
b) Would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			**X**	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
d) Result in inadequate emergency access?			**X**	

ENVIRONMENTAL SETTING

The existing Silva Dairy Farms operation consists of two separate dairy facilities located on the north and south side of State Route (SR) 140 at the intersection of Edminster Road. The community of Stevinson is located approximately 2.5 miles to the east-northeast of the existing active dairy facilities. The project area is dominated by agricultural uses.

Regional access to the project site is provided by Highway 140, and by Highway 165 to the east. All trips currently access Highway 140. Currently, heavy trucks (milk tankers, commodity deliveries) and other vehicles serve the project site. Existing daily trips by all classes of vehicles are estimated at 37.8 average daily trips (ADT), with approximately 8.8 heavy truck trips. For a discussion of potential impacts to roadways as a result of an increase in daily truck trips, see Section XV, *Public Services*, above.

ENVIRONMENTAL EVALUATION

Question (a) Conflict with local circulation plans: Less-than-significant Impact. The proposed project includes the construction of several new support buildings. Construction of the proposed project would be considered temporary over an approximate ten-year period. Employee trips and construction deliveries would be considered temporary construction traffic. Following implementation of the proposed project, project operations would result in an estimated increase of 6.5 heavy truck trips per day.

The proposed project use would be considered to be consistent with existing General Plan land use designation with issuance of Conditional Use Permit CUP20-014 (see Section XI, *Land Use and Planning* of this Initial Study). Because of the existing low levels of traffic in the vicinity, and because minimal new trips would be generated by the proposed project expansion, congestion on nearby roadways would not increase. There would be no reduction of the existing Levels of Service on nearby roads, nor would the project conflict with any applicable congestion management plan. Because there are no transit, bicycle, or pedestrian facilities in the vicinity of the proposed project, improvements would not result in the modification of any transit, bicycle, or pedestrian travel route. This would be a less-than-significant impact, and no mitigation would be required.

Question (b) Conflict with CEQA Guidelines regarding analysis of transportation impacts: Less-than-significant Impact. Section 15064.3, subdivision (b) of the CEQA Guidelines describes criteria for analyzing transportation impacts. Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. As set forth in the Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), "absent substantial evidence indicating that a project would generate a potentially significant level of vehicle miles travelled (VMT), or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact". The advisory defines "vehicle miles traveled" as the amount and distance of automobile travel attributable to a project. Further, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

The proposed dairy project would be served by heavy trucks (milk tankers, commodity deliveries), and other vehicles. Daily trips by all classes of vehicle are estimated to increase from an estimated 37.8 to 50.3 average daily trips, with an increase of 6.5 heavy truck trips per day. The project would generate approximately 6 new car or light truck trips (see Table 4 on page 21 of this Initial Study). Therefore, the project would not meet the suggested screening threshold of 110 automobile trips. Because the project would be considered consistent with the Merced County General Plan, and the project would not generate a significant number of trips and associated vehicle miles traveled, a less-than-significant impact would occur, and no mitigation would be required.

Question (c) Increase hazards due to geometric design feature: Less-than-significant Impact. Following completion of construction, any disturbed roadway would be returned to their original condition. Implementation of the proposed project would not result in any permanent changes to the design features or uses of adjacent roadways, or the construction of new roadways. There would be no increase to hazards related to a geometric design feature, or due to incompatible uses. A less-than-significant impact would result, and no mitigation would be required.

Question (d) Inadequate emergency access: Less than significant Impact. The Merced County Fire Department maintains standards for access roadways to provide for adequate emergency access. The Merced County Roads Division reviewed the proposed project, and recommended Conditions of Approval to require the dedication of additional right-of-way along Edminster Road frontage, and to require that the applicant enter into a Road Impact Agreement with the Merced County Department of Public Works. Construction effects on traffic and emergency circulation for the Silva Dairy Farms Expansion project would be temporary and well managed. Project implementation would not interrupt emergency access to the project site. Compliance with Merced County Fire Department standards for access roadways would result in a less-than-significant impact, and no additional mitigation would be required.

XVIII. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	**X**			
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**X**			

ENVIRONMENTAL SETTING

Questions (a) and (b) Cause adverse change to tribal cultural resources: Potentially Significant Impact. Implementation of the proposed project may result in site clearing, grading, and other ground disturbing activities that could adversely affect tribal cultural resources. Significant cultural remains can also exist below the plow zone in Merced County, and construction activities in these undeveloped areas could unearth and potentially damage tribal cultural resources. This would be a potentially significant impact that will be evaluated further in the EIR. A reconnaissance-level cultural resources survey of the project site will be conducted; it will include communication with the Native American Heritage Commission and local tribe representatives; however, because no tribes have registered with the County to request consultation on projects in their area, the County will not be offering formal tribal consultation in accordance with AB 52 at this time.

XIX. UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			**X**	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			**X**	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			**X**	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			**X**	

ENVIRONMENTAL SETTING

There are four residences located at the north dairy facility, and one residence on the south dairy facility. Domestic water is delivered to the residences via the on-site domestic water wells. Sewer service is provided by existing on-site septic systems. Solid waste collection and disposal are provided by private service. The proposed dairy expansion would rely on existing utilities, including domestic water, septic systems, stormwater, electrical, gas, and telecommunication services.

ENVIRONMENTAL EVALUATION

Because confined animal facilities, including dairies, would not require additional public facilities beyond those typically provided in agricultural areas, implementation of the proposed dairy expansion project would not be expected to increase the demand for public facilities beyond the levels provided and planned for by public utilities.

Questions (a) through (c) Construct or relocate new service system facilities, sufficient water supply, adequate wastewater treatment capacity: Less-than-significant Impact. Existing private water wells would continue to provide water to the project site. The water supply system at the north facility would currently be considered a state small water system due to its number of connections (5). With demolition of the old milking parlor 2, however, the number of connections would be reduced to four. Additionally, with implementation of the proposed project, the number of persons using the north water system would still never reach 25 per day on 60 or more days of the year. The north system would therefore not be classified as a public water system with the proposed dairy expansion.

The number of persons served each day by the south system is currently 19, and will increase to 25 employees on site at any given time. Of the 19 current and the 25 future employees, at least 2 will

not be working on any given day due to scheduled time off. The water system is currently not a public water system, and would not be expected to become one with the proposed expansion. Therefore, the Merced County Department of Public Health will not require a public water system permit for the proposed project.

Therefore, with implementation of the proposed project, the number of connections and the number of proposed employees on site at any given time would not reach levels that would require the dairy operation to obtain a County or State Water System Permit. There would be no change or impact to community-based water supply systems.

On the Silva Dairy Farms project site, there are individual septic systems that serve the on-site residence and dairy facilities. No new septic systems are included in the proposed project. The installation or modification of any future on-site septic system would require compliance with Merced County performance standards and approval by the DEH (Chapter 18.40, Performance Standards). These standards would require that the septic system be properly sized and designed with respect to on-site soil capabilities that would ensure the safe treatment and disposal of wastewater and the maintenance of groundwater quality. For a discussion of dairy wastewater disposal and compliance with CVRWQCB requirements, see Section X, *Hydrology and Water Quality*.

Stormwater runoff from impervious surfaces and roofed areas would continue to be collected and routed to the wastewater pond, except for stormwater from several barns, which would continue to be routed to nearby fields and irrigation pipelines. Wastewater would continue to be mixed with irrigation water and applied to the fields. According the Waste Management Plan provided by the applicant (dated May 2021), existing and proposed facilities would provide sufficient storage capacity to manage additional stormwater resulting from an increase in impervious surfaces, as well as increased wastewater resulting from the proposed herd size increase. The proposed project would therefore be in compliance with Merced County's Stormwater Ordinance (County Code Chapter 9.53). Because no adverse effects to storm drainage are expected, and no needs for, or modifications to, public storm drainage systems in the project vicinity are necessary, this would be a less-than-significant impact. For more information regarding storm drainage, see Section X, *Hydrology and Water Resources*, above.

Based on the information above, implementation of the proposed dairy expansion project would not result in the relocation or construction of new or expanded water, wastewater, storm water drainage, electric power, natural gas, or telecommunications facilities. This would be a less-than-significant impact, and no mitigation would be required.

Questions (d) and (e) Solid waste: Less-than-significant Impact. The proposed project consists of construction of expanded dairy facilities. The provision of solid waste collection service to serve the proposed project would be subject to the normal tariffs and requirements of the service provider, and would not result in the need for any major new systems or substantial alterations to these utility systems. It would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. There would be no change to existing conditions that would result in non-compliance with federal, state, and local management and reduction statutes and regulations related to solid waste. This would be a less-than-significant impact, and no mitigation would be required.

XX. WILDFIRE	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evaluation plan?				**X**
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				**X**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				**X**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

According to California Fire and Resource Management Program Fire Hazard Severity Zone map, the proposed project area is within the Local Responsibility Area, with an Unzoned designation. The threat of wildfire hazard in that area is determined to be unlikely. (CAL FIRE 2007)

Questions (a) through (d) Wildfire: No Impact. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. It is located in an existing low-density agricultural area, and the threat of wildland fire has been determined to be unlikely (CAL FIRE 2007). Because the proposed project is not located in or near a State Responsibility Area nor on lands classified as very high fire hazard severity zones, no impact would occur and no mitigation would be required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	**X**			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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)	**X**			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**X**			

Questions (a) Degrade quality of the environment, and (b) Cumulatively considerable impacts: Potentially Significant Impact. As discussed in this Initial Study, the proposed Silva Dairy Farms Expansion project has the potential to impact air quality, biological resources, cultural and tribal cultural resources, energy efficiency, greenhouse gas emissions, hazards from nuisance insects, hydrology and water quality, and land use and planning. These would be potentially significant impacts to be evaluated further in the EIR for the Silva Dairy Farms Expansion project.

In addition, the proposed project may contribute to cumulative effects in these areas. The project has been determined not to have significant project level effects for any additional environmental issue. Therefore, implementation of the project would not contribute to any cumulative effects in these other areas. Because of potential cumulative impacts to the areas listed above, such impacts will be evaluated further in the EIR for the proposed project.

Question (c) Adversely affect human beings: Potentially Significant Impact. Because of the potential environmental impacts identified in this Initial Study, the proposed Silva Dairy Farms Expansion project may have the potential to cause substantial adverse effects on human beings. This would be a potentially significant impact to be evaluated further in the EIR for the proposed project.

3. PREPARERS OF THE INITIAL STUDY

Lead Agency

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Raadha Jacobstein – Professional Planner, Project Manager
Mary Wilson – Planner
Dale Nutley – Graphic Artist

4. LITERATURE CITED

The following documents were referred to as information sources during preparation of this document. They are available for public review at the web addresses shown after the listing. All documents without an Internet address are available at the County of Merced, Community and Economic Development Department 2222 'M' Street, Merced, California 95340.

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NOTICE OF PREPARATION

To: Interested Persons

From: County of Merced
Department of Community and Economic Development
2222 'M' Street, Merced, CA 95340
(209) 385-7654

Contact: Diana Lowrance, Planner III

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Silva Dairy Farms Expansion project (Conditional Use Permit No. CUP21-011)

Merced County is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) for the proposed Silva Dairy Farms Expansion project. Merced County will prepare an Environmental Impact Report (EIR) for the proposed dairy expansion project as described in the attached Initial Study. We need to know the views of interested persons, agencies, and organizations as to the scope and content of the environmental information to be included in the EIR. Agencies should comment only on the environmental resources that are within the agency's statutory responsibilities in connection with the proposed project.

The description, location, and the probable environmental effects of the proposed dairy expansion project are contained in the attached materials. A copy of the Initial Study and all project related documents can be obtained at the Community and Economic Development Department, 2222 'M' Street, Merced, CA 95340. This information is also available for download from the Merced County Planning Department website at:

http://www.co.merced.ca.us/index.aspx?nid=414

Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but **not later than 30 days** after receipt of this notice.

Please send your response to Diana Lowrance, Planner III, at the Merced County address shown above. If an organization or agency, please include the name of a contact person so that we have the ability to contact you further during the EIR preparation process.

Project Title: Silva Dairy Farms Expansion

Project Location: Stevinson (*nearest community*) Merced (*County*)

Project Applicant: Silva Dairy Farms
1499 N. Edminster Road
Stevinson, CA 95374

Date: August 8, 2022 **Signature:** Diana Lowrance

Diana Lowrance
Planner III

cc: State Clearinghouse