San Joaquin Valley Unified Air Pollution Control District

Woods Dairy Expansion

Project Number N-1163206

San Joaquin County

Initial Study and Final Mitigated Negative Declaration

April 11, 2018

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INITIAL STUDY AND FINAL MITIGATED NEGATIVE DECLARATION

Woods Dairy Expansion
Project Number: N-1163206

April 11, 2018

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A. INTRODUCTION

The Woods Dairy Expansion project is located in Lodi, San Joaquin County, California. The San Joaquin Valley Unified Air Pollution Control District (District) has received an Authority to Construct (ATC) application package from the Woods Dairy to construct and operate a dairy expansion so that the modified dairy would house a total of 905 animals (500 milk cows, 75 dry cows, and 330 support stock). The proposed project is the expansion of an existing dairy facility on a 142-acre site. The dairy expansion would include extension of an existing freestall barn, construction of a shelter, replacement of a calf nursery barn, the addition of a storage pond, and a new feed storage area and hay barn. The proposed project would consolidate the majority of cows in the freestall barn and change the herd configuration. The Project is consistent with current agricultural zoning and would allow for expanded agricultural-related operations. In order to complete the proposed dairy expansion, the project applicant submitted an ATC application to comply with District rule requirements. It was determined that the California Environmental Quality Act (CEQA) applied to this Project. As presented in this environmental document, the District has conducted an Initial Study and concludes that, with mitigation, the Project would have a less than significant environmental impact.

B. PURPOSE AND AUTHORITY

The District has discretionary approval power over the Project, pursuant to District Rule 2010 (Permits Required) and District Rule 2201 (New and Modified Stationary Source Review Rule). The District determined that no other agency has broader discretionary approval power over the Project. As such, the District is the public agency having principal responsibility for approving the project and serves as Lead Agency (CCR §15367).

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The ERG was prepared to comply with this requirement and is an internal document used to comply with CEQA.

The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Under CEQA the Lead Agency is required to:

- Conduct preliminary reviews to determine if applications are subject to CEQA [CCR §15060].
- Conduct review to determine if projects are exempt from CEQA [CCR §15061].
- Prepare Initial Studies for projects that may have adverse environmental impacts [CCR §15063].
- Determine the significance of the environmental effects caused by the project [CCR §15064].
- Prepare Negative Declarations or Mitigated Negative Declarations for projects with no significant environmental impacts [CCR §15070].
- Prepare, or contract to prepare, EIRs for projects with significant environmental impacts [CCR §15081].
- Adopt reporting or monitoring programs for the changes made to projects or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment [PRC §21081.6 & CCR §15057].
- Comply with CEQA noticing and filing requirements.

C. PROJECT BACKGROUND INFORMATION

Existing Conditions

The existing animal confinement facility is located on approximately 6± acres of a 142-acre site. The existing on-site facilities include the following:

- milk parlor
- shelter
- feed storage
- private air strip/haul road
- 1 residence
- silage slab
- feed lane for heifer barn/feed manger
- freestall barn and corrals
- hay barn/shelter
- hangar/equipment storage
- 3 storage basins
- 2 shops
- manure stacking slab

There are approximately 471 animals at the dairy (including 257 milk and dry cows). Based on facility capacity, the Woods Dairy is permitted through the Air District for 724 animals, including 354 milk cows.

Manure Management and Feed
The existing dairy farms approximately 205 acres, including leased fields in the project vicinity. Some or all of these fields are used for the application of manure process water or solid manure. All of the crops grown on site are used for the growth of dairy feed crops, and supplement imported grain and hay. Feed is currently stored in silage piles on paved surfaces.

The existing facility consists of scrape systems that are used to collect and process wastewater and solid manure. Animal wastes from feed alleys and other concrete-surfaced areas are scraped to an on-site waste management system that consists of two settling basins and one wastewater storage pond. Solid manure within corral areas is scraped. The dairy facilities are sloped to prevent ponding of water and to direct stormwater runoff to the wastewater ponds. Currently, only some of the stormwater runoff from roofed buildings is directed to the wastewater ponds; stormwater from guttered buildings is directed to surrounding fields.

Wastewater is mixed with irrigation water and applied to cropland. Receiving fields are graded to guide excess applied wastewater to an existing tailwater drainage control system. The tailwater is diverted to surface drainage ditches and maintained on site by berms. There is a tailwater return system on the liquid application areas, except for 40 acres. The dairy facility uses groundwater from two on-site irrigation wells for farm operations.

Dry manure is typically scraped from corrals at least two times a year and used as fertilizer. Dry manure is also separated from liquids in the settling ponds, accumulated on site in the waste handling area, and hauled off site as piles accumulate for use as fertilizer and soil amendments. Approximately 2,101 tons (≈30 percent) of corral solids are exported off site annually.

Employees
Operations at the dairy are 24 hours per day, 365 days per year, with most operations concentrated during daylight hours. The dairy is a family operation with a total of 3 family member workers.

Circulation and Parking
Existing daily trips by all classes of vehicle are estimated to range from 5 to 10. Of these daily trips, approximately three are by heavy truck. All trips currently access DeVries Road via a private driveway. State Highway 12 and Interstate 5 provide regional access to the dairy.

Project Description

The proposed Project is the expansion of an existing dairy near the community of Lodi in San Joaquin County. The District has received an ATC application package from the Woods Dairy proposing to construct and operate a dairy expansion project to house a total of 905 cows (see Table 1).

Table 1: Pre-Project and Post Project Herd Numbers at the Woods Dairy

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo.)	Calves (4-6 mo.)	Calves (0-3 mo.)	Total Animals
Pre-Project	354	120	80	80	60	30	724
Post Project	500	75	90	120	60	60	905
Change	*146*	*-45*	*10*	*40*	*0*	*30*	*181*

Note: Pre-project numbers include the herd permitted by the Air District and capacity of the existing facility.

The proposed project would include:

- Extension of existing freestall barn (104 ft. x 200 ft. new construction, 104 ft. x 400 ft. proposed dimensions);
- New storage pond (95 ft. x 200 ft. & 11 ft. deep);
- Hay barn (30 ft. x 200 ft.);
- Shelter (30 ft. x 160 ft.);
- Calf nursery barn (replacement);
- Feed storage area (1,080 square feet).

Proposed project improvements would also include installation of roof drains on existing and proposed buildings to direct roof runoff away from the wastewater ponds. Most of the proposed improvements would be located within the area of existing active dairy facilities. Construction of the proposed freestall barn would extend the existing freestall barn to the south, and would increase the overall footprint of active dairy facilities from 6 to 7 acres. With construction of the proposed freestall barn extension, approximately 1 acre of cropland would be converted to active dairy facilities.

The proposed project would consolidate the majority of cows in the freestall barn and change the herd configuration. Table 2 shows the pre and post herd housing and configuration.

Table 2: Herd Housing and Configuration

	Milk Cows		Dry Cows	Support Stock (Heifers)	Calves	Total Animals
	Freestall	Corrals	Corrals	Corrals	Corrals	
Pre-Project	214	140	120	160	90	724
Post Project	440	60	75	210	120	905
Change	*226*	*-80*	*-45*	*50*	*30*	*181*

Manure Management and Feed
Solid and liquid manure would continue to be applied to 132 acres owned and operated by the dairy (San Joaquin County Assessor's Parcel Number (APN) 055-240-26), with

approximately 66 acres double cropped in oat and corn silage, and 66 acres planted in alfalfa hay. The dairy operator would continue to farm and apply solid manure to an additional 72 acres of leased land on Fields 12 and 13, and two new fields. These parcels would be double cropped in oat and corn silage, and include APN 055-170-09 (Field 12 - 27 acres), APN 055-250-29 and 055-250-32 (new fields – 25 acres) and 055-250-03 (Field 13 - 20 acres). Therefore, a total of 204 cropped acres would receive solid and liquid manure with the proposed expansion.

Besides the improvements listed above, dairy facility operations would continue as described in Existing Conditions. The amount of exported corral solids would increase to approximately 4,037 tons (≈50 percent) of solid manure annually.

Employees
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 dairy expansion project, the number of employees would increase by approximately 5 workers, for a total of 8 workers.

Circulation and Parking
The proposed dairy herd expansion would result in an estimated 15 to 20 daily trips, with three trips by heavy truck (see Table 3). No additional parking would be required.

Table 3: Woods Dairy Expansion Trip Generation and Assignment

Trip Type/Purpose	Daily Trip Generation Factor	Type of Vehicle	Daily Trips		Local Route of Trip
			Existing	With Project	
Residential Dwellings (on-site)	2/residence *See Note 1	Auto/Light Truck	2	2	DeVries Rd
Employees (off-site)	2/employee *See Note 2	Auto/Light Truck	2	12	DeVries Rd
Milk Tanker	*See Note 3	Heavy Truck	2	2	DeVries Rd
Commodities transport from off-site (hay, minerals, feed concentrates, other)	*See Note 4	Heavy Truck	0.2	0.3	DeVries Rd
Solid manure distribution to off-site fields	*See Note 5	Heavy Truck	0.6	1.18	DeVries Rd
Rendering Service		Medium Truck	0.06	0.06	DeVries Rd
Veterinarian		Light Truck	0.06	0.06	DeVries Rd
Services		Light Truck	0.3	0.3	DeVries Rd
Fuel Delivery		Medium Truck	0.1	0.1	DeVries Rd
Total Auto/Light Truck Trips			4.36	14.36	
Total Medium Truck Trips			0.16	0.16	
Total Heavy Truck Trips			2.8	3.48	
Total Trips			7.32	18	

Notes: Trip Generation table based on Planning Partners assumptions and information obtained from project applicant

1. One (1) existing residence occupied by the owner. 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. 5 additional employees with proposed increase
3. Milk tanker truck deliveries would not increase with the proposed expansion since there is a large on site milk tank with currently unused capacity
4. 9 trips per month existing / 12 trips per month with expansion
5. 220 trips per year existing / 430 trips per year with expansion

Project Phasing

Construction of the proposed expansion would occur in several phases over the next ten years following permit approvals.

Project Location

The proposed Project is located within the central California region of San Joaquin County, which is in the San Joaquin Valley Air Basin (see Figure 1). The existing Woods Dairy is located on 6± acres of a 142-acre site in an unincorporated area of San Joaquin County on the south side of West Kingdon Road and east of North DeVries Road, approximately 2 miles west of the community of Lodi (see Figures 2 and 3 and Table 4).

The project site is located on one parcel, identified as San Joaquin County APN 055-240-26 (142.11 acres). See Figure 4 for the dairy site plan.

Table 4: Project Location

Latitude		Longitude	
38°06'26.62"N		121°21'02.25"W	
USGS Quadrangle	**Sections**	**Township**	**Range**
Lodi	17 and 18	3N	6E

The District has verified that the Project is not within 1,000 of a school's outer boundary; therefore the public notification requirement of California Health & Safety Code 42301.6 is not applicable to the Project.

General Plan Designation and Zoning

The San Joaquin County General Plan designates the project site and the surrounding areas as General Agriculture. The project site is within the San Joaquin County AG-40 (General Agriculture – 40 acre minimum) zone district. In San Joaquin County, an existing dairy may be expanded provided the expansion involves less than 25 percent increase in the floor area of the milk house (San Joaquin County Code 9-605.6(k)(1)), and a Site Approval is required for expansions of a dairy beyond this amount.

Surrounding Land Uses and Setting

The Project site is within the existing agricultural area. The area immediately surrounding the Project site is zoned agricultural and is designated as AG-40 (General Agriculture – 40 acre minimum). These uses include general commercial agricultural operations. There are several off-site single-family residences associated with other agricultural operations located on parcels to the northeast, south, east, and west of the project site. The Union Pacific railroad runs north-northwest and adjacent to the project cropland (see Table 5). See Figure 5 for distances to nearby off-site residences and businesses.

Table 5: Surrounding Land Uses at the Woods Dairy

Location	Land Use	San Joaquin County General Plan	San Joaquin County Zoning
ONSITE	Dairy / Irrigated agriculture / 1 residence	A/G	AG-40
NORTH	Agriculture / residences	A/G	AG-40
EAST	Agriculture / residences	A/G	AG-40
SOUTH	Railroad / Agriculture / residences	A/G	AG-40
WEST	Railroad / Agriculture / residences	A/G	AG-40

See Figure 6 for views of the project site. 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 IS/MND; however, these changes would consist of agricultural and

ancillary uses consistent with the San Joaquin County General Plan and would not affect the analysis contained in this IS/MND.

Other Public Agencies Whose Approval Is Required

The District has identified the following agency as having approval authority for the Project.

Central Valley Regional Water Quality Control Board (RWQCB)

The CVRWQCB regulates the existing dairy under the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies (Order R5-2013-0122). Coverage under the General Order for Existing Milk Cow Dairies requires approval and implementation of a NMP for the application of waste to land application areas, and a Waste Management Plan (WMP) to ensure proper compliance with the General Order. As established by the Report of Waste Discharge (ROWD) submitted for the existing dairy to the CVRWQCB in October 2005, the State-permitted herd size for the dairy is a maximum of 170 mature cows (milk and dry cows) for the facility[1]. The existing herd currently exceeds the ROWD herd limit number. To permit the proposed expansion, the CVRWQCB would be required to issue Individual Waste Discharge Requirements (WDR) for the operation.

Permits Required

Implementation of the proposed dairy expansion would also require that the dairy owner or operator obtain the following ministerial permits and approvals.

State of California – 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, or whose projects disturb less than one acre but are part of a large common plan of development that disturbs one or more acres. Effective July 1, 2010 all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. This General Permit has developed specific BMPs as well as numeric action levels (NALs) and numeric effluent limitations (NELs) in order to achieve these minimum federal standards. In addition, the General Permit requires a Storm Water Pollution Prevention Plan (SWPPP) and Rain Event Action Plan (REAP)

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

(another dynamic, site-specific plan) to be developed.

San Joaquin Valley Air Pollution Control District

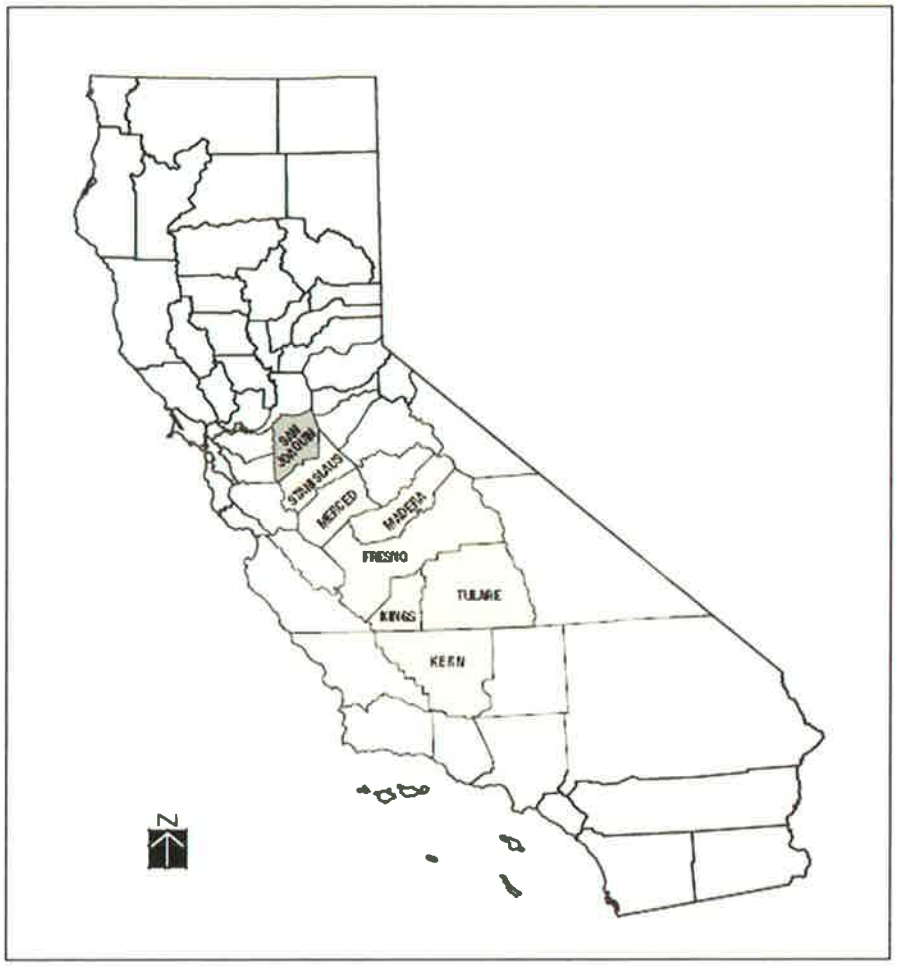
- Conservation Management Practices (CMP) Plan – The owner or operator of any agricultural facility of 100 acres or more, or an animal confinement facility in excess of 500 mature cows (for a dairy operation), must submit a CMP plan to the SJVAPCD prior to June 30, 2004 for existing uses, and prior to operation for proposed uses. The 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. A CMP Plan for existing operations at the Woods Dairy was submitted in 2009. The Woods Dairy will be submitting a modification request to their existing CMP Plan based on their proposed expansion.

San Joaquin County

- Building Permit – San Joaquin County will require a building permit for the proposed dairy expansion project. The County will review construction plans for compliance with County Code requirements prior to issuance of required building permits to protect the Heritage Oak Tree from construction-related damage.

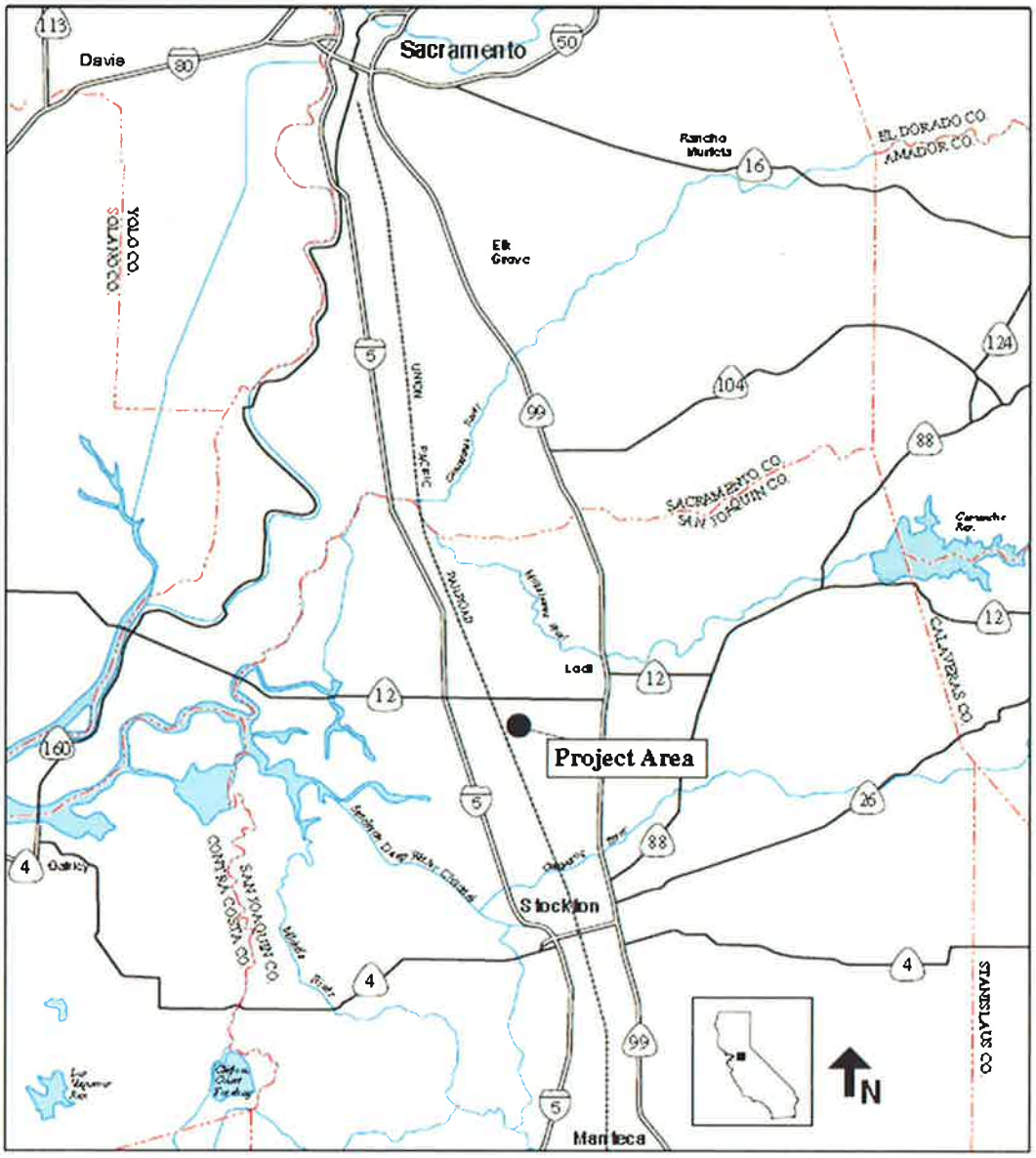
- Manure Management Plan - The Environmental Health Division will require a revised manure management plan for the proposed dairy expansion

Figure 1: San Joaquin Valley Air Basin



Source: Planning Partners 2017; SJVAPCD 2012

Figure 2: Regional Location

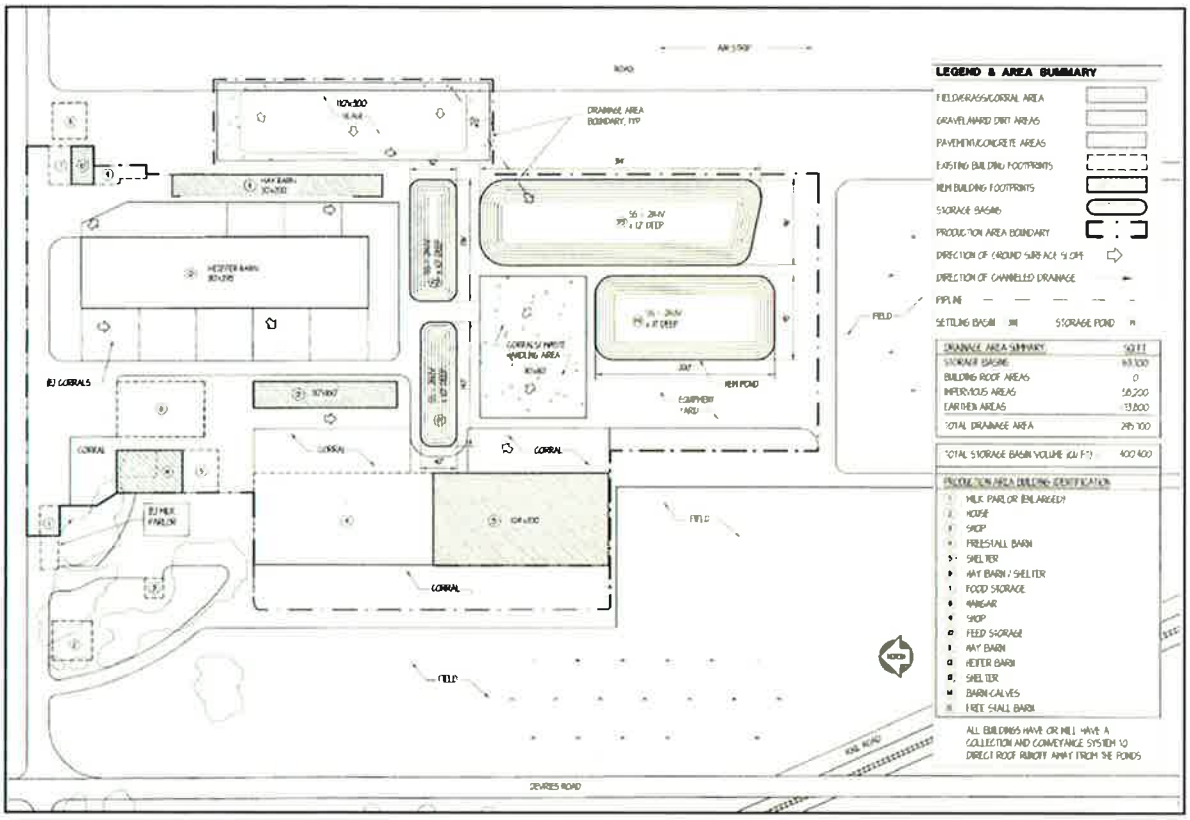


Source: Planning Partners 2017

Figure 3: Site Vicinity

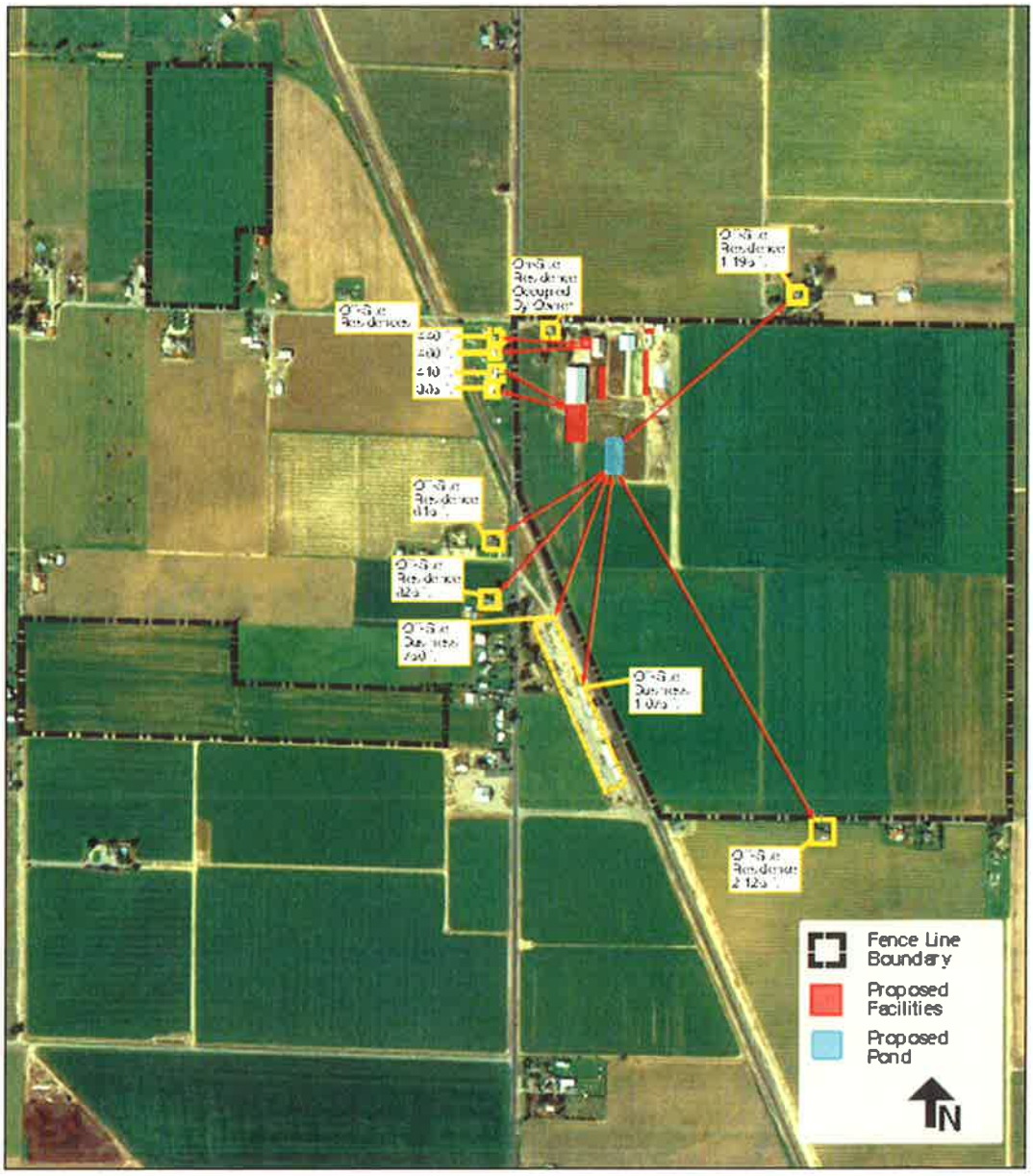
Source: Google Earth 2017; Planning Partners 2017

Figure 4: Site Plan



Source: Watermark Engineering Inc. February 2011; Planning Partners 2017

Figure 5: Distances to Off-Site Residences and Businesses



Source: Watermark Engineering Inc. 2011; Planning Partners 2017

Figure 6: Aerial View of the Dairy

Source: Project Applicant, 2016

Figure 6a: Woods Dairy View to North

Source: Google Earth 2017

Figure 6a: Woods Dairy View to East

Source: Google Earth 2017

Figure 6b: Woods Dairy View to South

Source: Google Earth 2017

Figure 6b: Woods Dairy View to West

Source: Google Earth 2017

D. DECISION TO PREPARE A MITIGATED NEGATIVE DECLARATION

Consistent with CEQA requirements the District prepared an Initial Study that evaluated potential environmental effects of the Project. The District has determined that with mitigation, the Project would have a less than significant impact on the environment. The District concludes that a Mitigated Negative Declaration would be appropriate for the Project. Project design elements and mitigation measures that reduce the Project's impact on environment would be enforced through mitigation and District permits.

E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

F. DETERMINATION

I certify that the Project was independently reviewed and analyzed and that this document reflects the independent judgment of the District.

☐ 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 proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.

☐ 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: APR 17 2018

Printed Name: Arnaud Marjollet

Title: Director of Permit Services

G. ENVIRONMENTAL IMPACT CHECKLIST

I. Aesthetics Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to trees, rock, outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

I. AESTHETICS

a) Have a substantial adverse effect on a scenic vista?

No Impact

Viewers are limited to motorists on perimeter roadways and residents of surrounding agricultural facilities and operations. No scenic vista is visible from the project site, nor is the site visible from any nearby scenic vista. Because the proposed dairy expansion would not affect a scenic vista, no impact would result with implementation of the project.

b) Substantially damage scenic resources, including, but not limited to trees, rock, outcroppings, and historic buildings within a state scenic highway?

No Impact

Located over 30 miles south in southern San Joaquin County, Interstate 5 from the Stanislaus County line to Interstate 580 is designated as a State Scenic Highway. Because of the distance from the site to any designated highway, no state- or locally-designated scenic highway is visible from the project site; nor is the site visible from any nearby designated scenic highway (Caltrans 2011). Further, no important scenic resources are located on the project site. Because the project site is not located within

the viewshed of a designated scenic highway, there would be no damage to scenic resources, and no impact would result with implementation of the dairy expansion project.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Less than Significant Impact

Developed agricultural facilities in the immediate vicinity consist of irrigated agriculture. Though the existing dairy facilities are visible from perimeter roads, their appearance is a common sight in rural areas of San Joaquin County, and the visual effects of the dairy are reasonable and expected in the context of the Agriculture land use designation. The proposed project would appear similar to existing facilities, and would 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.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less than Significant

The project may add an additional source of light to the area with additional outside yard lighting. While there are sensitive receptors for nighttime light and glare located in the vicinity of proposed active dairy operations, San Joaquin County standards require that all outdoor lighting be directed away from or be properly shaded to eliminate light trespass or glare above 1.0 foot-candles onto surrounding residential uses (San Joaquin County Code Section 9-1025.6). The County would review construction plans for compliance prior to issuance of required permits. Compliance with County requirements would reduce any light and glare effects to less-than-significant levels.

II. Agricultural Resources	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resource Board. 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?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			✓	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓

II. Agricultural Resources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

III. AGRICULTURAL RESOURCES

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?

No Impact

The California Department of Conversation prepared the Farmland Mapping and Monitoring Program (FMMP) designating important farmland in California. According to the California Department of Conservation's (DOC) Important Farmlands Map of San Joaquin County, the area of active dairy facilities is designated Confined Animal Agriculture (FMMP 2014). Confined Animal Agriculture lands as defined by DOC include poultry facilities, feedlots, dairy facilities, and fish farms. The project site cropland is designated as Prime Farmland and Unique Farmland.

Construction of the proposed dairy expansion would convert approximately 1 acre of existing cropland to active dairy facilities, an agricultural use. This area of cropland is designated as Prime Farmland. Because this area of the project site would be maintained in agricultural use, construction of the proposed facilities would not convert Prime Farmland or other important farmland to a non-agricultural use, and no impact would result.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less than Significant Impact

The project site and area are designated for agricultural uses by the San Joaquin County General Plan and Zoning Ordinance. The project site is not under Williamson Act contract. Two of the off-site parcels (Fields 12 and 13) are currently under Williamson Act Contract (San Joaquin County 2017); however, the proposed dairy expansion would result in both

fields being maintained as cropland and would not conflict with any conditions of those Williamson Act contracts. The existing use, a dairy, is an agricultural use consistent with the General Plan and Zoning Ordinance. Adjacent properties are also in agricultural uses, namely field crops in all surrounding areas. No feature of the project would preclude or limit the agricultural use of the project site or adjoining parcels. The County implements its Right-to-Farm notice (San Joaquin County Code Section 6-9000) to minimize agricultural conflicts, which requires that residents near agricultural land recognize and be prepared to accept nuisances common to agricultural practices. Thus, the proposed project would be the continuation of an existing agricultural use consistent with County policies, and would not conflict with adjacent agricultural and/or non-agricultural uses.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?*

No Impact

The project site is currently in agricultural use and surrounded by similar agricultural uses and associated residences. The project site is not zoned for forest land or timberland. Thus, no impact would occur.

d) *Result in the loss of forest lands or conversion of forest land to non-forest use?*

No Impact

As discussed above, the project site is not located on forest lands, nor are there any forest resources located on the project site. Therefore, implementation of the proposed dairy expansion project would not result in the loss of forest lands or conversion of forest land to non-forest use. Thus, no impact would occur.

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?*

No Impact

The proposed dairy expansion project would not involve the development of any use inconsistent with the project site's agriculture zoning, and would not result in the development of non-agricultural uses. Thus, no impact would occur.

III. Air Quality Would the Project:	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?			✓	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

IV. AIR QUALITY

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant

The District is tasked with implementing programs and regulations by the Federal Clean Air Act and the California Clean Air Act and has prepared plans to attain federal and state Ambient Air Quality Standards (AAQS). The District has established thresholds of significance for criteria pollutant emissions, which are based on federal and District NSR offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation.

The significance of the impacts of the emissions from construction, operational non-permitted equipment and activities, and operational permitted equipment and activities are evaluated separately. The thresholds of significance are based on a calendar year basis. For construction emissions, the annual emissions are evaluated on a consecutive 12-month period. A project would be determined to have a significant impact on air quality if the emissions sum for any criteria pollutant exceeds its respective threshold of significance. The District's thresholds of significance for criteria pollutant emissions are presented below in Table 2.

Table 2: District Thresholds of Significance for Criteria Pollutants

Pollutant	Construction Emissions Threshold (*tpy)	Permitted Operational Emissions Threshold (*tpy)	Non-Permitted Operational Emissions Threshold (*tpy)
NOx	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15
CO	100	100	100
ROG (VOC)	10	10	10
*tpy = tons per year Note: For construction emissions, the annual emissions are evaluated on a consecutive 12-month period.			

Project Details

The Woods Dairy Project is to construct and operate a dairy expansion that will allow the dairy to house a total of 905 animals (500 milk cows, 75 dry cows, and 330 support stock). The proposed project is the expansion of an existing dairy facility on a 142-acre site. The dairy expansion would include extension of an existing freestall barn, construction of a shelter, replacement of a calf nursery barn, the addition of a storage pond, a new feed storage area and hay barn.

Construction Emissions

Construction of the Project is expected to occur over a 6-month period. Construction will include demolition, site preparation, grading of the area, pouring concrete foundation for the structure, associated increase in worker trips, assembling the pre-fabricated buildings, paving and architectural Coatings. Please see below for a summary of construction related emissions.

Table 3: Project Construction Emissions

12-month Construction Period	Annual Emissions (tons)			
	NO_x	PM_{10}	ROG (VOC)	CO
2018	0.68	0.06	0.29	0.51
District Threshold of Significance	10	15	10	100
Exceed District Threshold?	**No**	**No**	**No**	**No**

Notes: Estimated using CalEEMod 2016.3.2.

The construction emissions are assessed on a consecutive 12-month period with construction expected to take six (6) months for the Project. As shown in Table 3 above, construction emissions will not exceed the District thresholds of significance. Therefore, the District concludes that Project construction emissions would have a less than significant impact on air quality and mitigation measures are not required.

Operational Emissions

Operational Non-Permitted Activities – Employee Mobile Source Emissions: At full build-out the Project is expected to require 5 additional employees resulting in 10 average daily trips from employees. The distance employees are expected to travel is unknown. As such, the default trip length in CalEEMod was used for the analysis. To assess the Project impacts at worst-case scenario from employee mobile sources, 100% of the employee trips were assumed to be Light Duty Truck -2 (LDT-2) vehicles, assuming the facility was fully operational in year 2019.

Operational Non-Permitted Activities – Trucks: At full build-out the Project is expected to result in approximately an increase of 3 commodity trips per month, and 210 trips per year for off-site export of dry manure. Milk tanker truck deliveries will not increase with the proposed expansion. At worst case scenario, the commodity trucks will travel approximately 5 miles roundtrip, the manure trucks will travel approximately 95 miles roundtrip. To assess the Project impacts at worst-case scenario from non-permitted activities, 100% of the truck trips were assumed to be Heavy-Heavy Duty Trucks (HHDT) vehicles, and assuming the facility is fully operational in year 2019.

As shown below in Table 4, operational non-permitted source emissions will not exceed the District thresholds of significance for criteria pollutants. Therefore, the District concludes that Project non-permitted activities will have a less than significant impact on air quality.

Table 4: Project Operational Mobile Emissions

Mobile Source	Annual Emissions (tons)			
	NO_x	PM_{10}	ROG (VOC)	CO
Employee and Trucks	0.1094	0.0276	0.1543	0.1035
Total:	0.1094	0.0276	0.1543	0.1035
District Threshold of Significance	10	15	10	100
Exceed District Threshold?	**No**	**No**	**No**	**No**

Notes: Estimated using CalEEMod 2016.

Operational Permitted Equipment – Stationary Source Emissions: The Project is to construct and operate a dairy expansion that will allow the dairy to house a total of 950 animals (500 milk cows, 75 dry cows, and 330 support stock). The proposed project is the expansion of an existing dairy facility on a 142-acre site. The dairy expansion would include 181 additional animal units, an extension of an existing freestall barn, construction of a shelter, replacement of a calf nursery barn, the addition of a storage pond, a new feed storage area and hay barn. The District has conducted an engineering evaluation for the Project stationary source emissions and determined that Best Available Control Technology (BACT) is triggered.

Table 5 below presents the operational permitted stationary source emissions at full build-out for an increase of 181 total animal units.

Table 5: Project Operational Stationary Source Emissions

	Annual Emissions (tons/year)				
	NOx	**SOx**	**PM_{10}**	**CO**	**VOC**
Total Operations Emissions	0	0	0.1	0	0
District Threshold of Significance	10	27	15	100	10
Exceed District Threshold?	No	No	No	No	No

As presented in Tables 4 and 5, operational emissions associated with non-permitted and permitted stationary source emissions will be less than the District's CEQA significance threshold. As such, the District concludes that through a combination of project design features and permit conditions, Project related stationary source emissions would have a less than significant impact on air quality.

Air Quality Plans

As summarized in Tables 3 and 4, Project related construction, operational non-permitted source, and operational permitted source emissions are below the District's thresholds of significance. As such, the Project does not conflict with the implementation strategy of the District's air quality plans (2007 Ozone Plan; 2007 PM10 Maintenance Plan and Request for Re-designation; *2008 PM 2.5 Plan*; *2012 PM2.5 Plan, 2013 Plan for the Revoked 1-hour Ozone Standard, 2015 Plan for the 1997 PM2.5 Standard; 2016 Plan for the 2008 8-Hour Ozone Standard*). Therefore, the Project would have a less than significant impact.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less Than Significant Impact

Determination of whether Project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and Federal ambient air quality standards at the project's property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The Project emissions are less than 100 lbs. per day, therefore the Project related criteria pollutant

emissions will not cause or contribute to an exceedance of either national or state AAQS. Therefore, the Project is not expected to result in a violation of an air quality standard and the impact would be less than significant.

c) *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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Less Than Significant Impact

By its very nature, air pollution has a cumulative impact. The District's nonattainment status is a result of past and present development within the San Joaquin Valley Air Basin (SJVAB). Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the San Joaquin Valley Air Basin.

The District's thresholds of significance for criteria pollutants are based on District Rule 2201 (New Source Review) offset requirements. Furthermore, NSR is a major component of the District's attainment strategy. NSR provides mechanisms, including emission trade-offs, by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of ambient air quality standards. District implementation of NSR ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources for all nonattainment pollutants and their precursors. In fact, permitted emissions above offset thresholds equivalent to the District's thresholds of significance for criteria pollutants are mitigated to below the thresholds, and the District's attainment plans show that this level of emissions increase will not interfere with attainment or maintenance of ambient air quality standards.

The District's attainment plans demonstrate that project-specific net emissions increase below NSR offset requirements will not prevent the District from achieving attainment. Consequently, emission impacts from sources permitted consistent with NSR requirements are not individually significant and are not cumulatively significant.

As discussed above, the Project construction is short term and will not exceed any significance threshold. The Project operational non-permitted sources will not exceed any significance thresholds, and operational stationary sources will not exceed any significance thresholds. Therefore, Project related emissions would have a cumulatively less than significant impact on air quality.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact

Under the Clean Air Act, toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. Potential health impacts from TACs include long-term health effects such as cancer, birth defects, neurological damage, or genetic damage; or short-term effects such as eye watering, respiratory irritation, throat pain and headaches. TACs may also be referred to as hazardous air pollutants (HAPs). There are currently more than seven hundred (700) substances classified by the US Environmental Protection Agency (US EPA) and California Air Resources Board (CARB) as TACs. Air Quality problems occur when sources of TACs and sensitive receptors are located in proximity to one another.

TACs can be separated into carcinogens and non-carcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals.

Non-carcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed by using a Hazard Index, which is the ratio of expected exposure levels to acceptable health-acceptable exposure levels.

The Health Risk Assessment (HRA) demonstrates that the Project will not exceed the above levels of significance for Carcinogens and Non-Carcinogens. Specific conditions will be placed into the permit to ensure that human health risks will not exceed the District allowable levels. In regards to the HRA, the District's thresholds of significance for determining whether project emissions would expose sensitive receptors to substantial pollutant concentrations are:

- Carcinogens: Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds ten (20) in one million.
- Non-Carcinogens: Ground Level concentrations of non-carcinogenic TACs would result in a Hazard Index greater than one (1) for the MEI.

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987, and requires stationary sources to report the type and quantities of certain substances routinely released into the air. The goals of AB 2588 are to collect emission data, to identify facilities having localized impacts, to ascertain risks to acceptable levels. AB 2588 requires air districts to establish the prioritization score threshold at which facilities are required to prepare a health risk assessment (HRA). In

establishing priorities, an air district must consider potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, and any other factors that the district determines may indicate that the facility may pose a significant risk.

In implementing its responsibilities under AB 2588, the District Governing Board adopted notification procedures, including prioritization score thresholds, for notifying the public of significant carcinogenic and non-carcinogenic health risks. The District concludes that use of the existing prioritization score thresholds to establish thresholds of significance under CCR §15064.7 is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process.

Therefore, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would expose sensitive receptors to significant health risks. Therefore, the Project would have a less than significant impact on sensitive receptors.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the District. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there is no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Rather, projects must be assessed on a case-by-case basis.

Diesel exhaust from construction activities may generate odors. However, construction emissions are temporary in nature and the project construction phase is not expected to affect a substantial number of people. Typically, dairy facilities have the ability to create odor impacts to from dairy operations. However, based on District records there has been zero (0) complaints received at the Woods Dairy facility.

The District's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) defines a significant odor impact as either:

- More than one (1) confirmed complaint per year averaged over a three (3) year period, or
- Three (3) unconfirmed complaints per year averaged over a three (3) year period.

The District searched its Compliance Database for the Woods Dairy facility. Per the District's research, zero (0) confirmed complaint and zero (0) unconfirmed complaints were received over a three (3) year period at the Woods Dairy facility. Therefore, since

no more than one (1) confirmed complaint and three (3) unconfirmed complaints were received over the last three (3) years, the District concludes that there is no substantial evidence of record to support a conclusion that the Project would create objectionable odors affecting a substantial number of people. As such, the Project would have a less than significant impact on odors.

IV. Biological Resources Would the Project:		**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		✓		
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 U.S. Fish and Wildlife Service?				✓
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			✓	

V. BIOLOGICAL RESOURCES

A reconnaissance-level site visit of the project site was conducted by Planning Partners biologist J. Dumars on May 2, 2011 to assess existing biological conditions (Appendix C, available from the District upon request). The biological reconnaissance did not discover any sensitive biological species or resources in the area of cropland to be converted for the proposed expansion. Since 2011, cropping activities have continued in the area

proposed for construction. To confirm no new occurrences of special status species have been identified in the project area, a California Natural Diversity Database (CNDDB) query of biological resources in the Lodi South, California and surrounding eight 7.5-Minute Topographic Quadrangles was completed in July 2017. A United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation Report was also completed (Appendix C, available from the District upon request). Special-status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern by CDFW. (USFWS 2017, CDFW 2017)

According to the records search, special-status species have been documented in the nine-quadrangle area surrounding the project site, including five crustaceans, two amphibian, two reptile, and four fish. Most of these species are associated with water features such as vernal pools, ponds, marshes, and streams. No vernal pool habitat or other appropriate water features are present on the site in the area of proposed activities. The National Wetlands Inventory does not identify any wetlands on the project site.

The results of the CNDDB records search show that eight bird species and one mammal species have been recorded in the vicinity of the project site. Some of these species require foraging habitat such as that found in project area cropland. The area of existing dairy facilities is devoid of foraging habitat.

Occurrences of 20 special status plant species have been recorded in the region of the project. The land on the subject property is developed with active dairy facilities. The project site does not support extensive wild plant diversity or cover, and there is no native vegetation.

Sensitive natural habitats are those that are considered rare within the region, support sensitive plant or wildlife species, or function as corridors for wildlife movement. Four sensitive natural habitats, Coastal and Valley Freshwater Marsh, Great Valley Oak Riparian Forest, Northern Hardpan Vernal Pool, and Valley Oak Woodland, were identified by the CNDDB and California Native Plant Society (CNPS) lists for the nine-quadrangle area. However, the project area is developed with active dairy facilities and there are no sensitive habitats on site.

For a complete listing of special-status species that may occur or could potentially be affected by activities in the project location, see Appendix C (available from the District upon request).

Multi-Species Habitat Conservation and Open Space Plan

San Joaquin County has developed and implemented a Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). In accordance with Federal Endangered Species Act (ESA) Section 10(a)(1)(B) and California Endangered Species Act (CESA) Section 2081(b) Incidental Take permits, the SJMSCP provides compensation for the

conversion of open space to non-open space uses that affect the plant, fish, and wildlife species covered by the SJMSCP. While most cities within San Joaquin County administer the SJMSCP themselves, the San Joaquin Council of Governments administers the SJMSCP in other areas, including the area of unincorporated San Joaquin County in which the project is located.

Any project that disturbs any type of habitat for any non-agricultural activity is a project that has the potential to participate in the SJMSCP. Agricultural activities that disturb habitat can be covered by the SJMSCP if requested by the CEQA lead agency. For most projects, the impact area can be evaluated, a biological survey will be prepared, and SJMSCP coverage can be granted in roughly 4-6 weeks. All of the special status species with potential to occur in the study area are covered under the SJMSCP, including burrowing owl, Swainson's hawk, white-tailed kite, loggerhead shrike, California horned lark, and western mastiff bat. In order to determine if the project impacts would require compensation according to the SJMSCP, the project proponent would be required to complete SJMSCP review.

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Less Than Significant with Mitigation Incorporated

The proposed dairy expansion would result in the conversion of one acre of cropland to active dairy facilities. Cropland in the vicinity of the Woods Dairy is suitable foraging habitat for several special status birds-of-prey, including the state-listed Threatened Swainson's hawk. Trees on the project site provide suitable nesting habitat for several species of birds including raptors and songbirds. Fallow and ruderal areas within the project area also provide suitable habitat for ground nesting birds such as killdeer and California horned lark, and ground dwelling mammals such as ground squirrel and cottontail rabbit.

According to the CDFW Staff Report regarding Mitigation for Impacts to Swainson's Hawks (CDFG 1994), the following vegetation types are considered small mammal and insect foraging habitat for Swainson's hawks: alfalfa; fallow fields; beet, tomato, and other low-growing row or field crops; dry-land and irrigated pasture; rice land (when not flooded); and cereal grain crops (including corn after harvest). Since the project area cropland provides foraging habitat for small ground-dwelling mammals that are prey species for raptors, the conversion of approximately one acre of existing cropland to dairy facilities could contribute to the loss of foraging habitat for the Swainson's hawk.

Therefore, construction of the proposed dairy expansion would result in the conversion of approximately one acre of cropland to dairy facilities and a loss of potential nesting and foraging habitat for sensitive and migratory bird species. Special status species with

potential to occur in the study area include burrowing owl, Swainson's hawk, white-tailed kite, loggerhead shrike, California horned lark, and western mastiff bat. With implementation of the following measure, potential impacts to special status species would be reduced to a less-than-significant level:

Mitigation Measure BIO-1a:

Prior to issuance of a building permit, the project applicant shall consult with CDFW to determine if mitigation is necessary for the loss of approximately one acre of potential Swainson's hawk foraging habitat. Should CDFW consider there to be impacts to Swainson's hawk requiring mitigation under CDFW guidelines, CDFW mitigation measures shall be implemented as outlined in Mitigation Measure BIO-1b. Alternatively, the applicant could obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan as set forth in Mitigation Measure BIO-1c.

Mitigation Measure BIO-1b:

Following consultation with CDFW, should it be determined necessary, CDFW mitigation measures hereby incorporated by reference shall be implemented for this project:

1. Protocol Surveys. The project applicant shall conduct a protocol-level survey in conformance with the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley," Swainson's Hawk Technical Advisory Committee hereby incorporated by references. This protocol prescribes minimum standards for survey equipment, mode of survey, angle and distance to tree, speed, visual and audible clues, distractions, notes and observations, and timing of surveys.

    a. Nesting surveys can only be performed between January 1 and July 30 and will vary depending on seasonal conditions and the actual nesting period.
    b. Surveys must be performed by a qualified raptor biologist.
    c. A written report with the pre-construction survey results must be provided to the Planning Department and CDFW within 30 days prior to commencement of construction-related activities. The report shall include: the date of the report, authors and affiliations, contact information, introduction, methods, study location, including map, results, discussion, and literature cited.
    d. The project applicant must submit CNDDB forms for Swainson's hawk occurrences and for any other listed, fully protected, or species of special concern encountered and positively identified during the surveys.

    If the required nesting surveys show there are no active nests within the appropriate radius as defined by the technical advisory referenced above, then no additional mitigation for active nests will be required as outlined in BIO-1b(2) below.

2. Nest Avoidance. If the required nesting surveys show there are no active nests within the appropriate radius then no additional mitigation will be required. If active nests are documented on the CNDDB data base, or other environmental study, or are discovered during the protocol survey, the project applicant must obtain CESA 2081 Management Authorization prior to the start of construction-related activities. CDFW pre-approved mitigation measures to avoid nest impacts during construction must include:

    a. No intensive new disturbances (for example, heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities), habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging, should be initiated within one-half-mile (in rural areas) or one-quarter-mile (in urbanized areas) of an active nest between March 1 and September 15, or August 15 if written CESA 2081 Management Authorization obtained from CDFW prior to such disturbance.

    b. Nest trees shall not be removed unless there is no feasible way of avoiding it. If a nest tree must be removed, written CESA 2081 Management Authorization must be obtained from CDFW prior to tree removal. Such written authorization must specify:

        i. The tree removal period, which can typically be expected to be between October 1 and February 1.
        ii. The conditions required to offset the loss of the nest tree.

    c. If disturbances, habitat conversions, or other project-related activities, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone, monitoring of the nest site by a qualified raptor biologist, funded by the project applicant, shall be required, to determine if the nest is abandoned. If the nest is abandoned, but the nestlings are still alive, the project proponent is required to fund the recovery and hacking, that is the controlled release of captive reared young.

    d. Routine disturbances such as agricultural activities, commuter traffic, and routine maintenance activities within one-quarter-mile of an active nest are not prohibited.

3. Once the CDFW has determined that a project will result in foraging habitat impacts, or in the alternative, if the project applicant has decided to presume foraging habitat impacts, the project applicant must obtain a CESA 2081 Management Authorization from CDFW prior to any construction-related activity. The extent of any necessary mitigation shall be determined by CDFW. Generally, CDFW requires mitigation for foraging habitat based on the

presence of active nests within 10 miles of the project. If an active nest site is identified within a certain Distance of the Project Boundary, the project proponent ordinarily will be required by CDFW to provide off-site foraging habitat management lands at a specified Mitigation Ratio, as follows:

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

*Ratio means [acres of mitigation land] to [acres of foraging habitat impacted].
**This ratio shall be 0.5:1 if the acquired lands can be actively managed for prey production.

Mitigation Measure BIO-1c:

Following consultation with CDFW, should mitigation be determined necessary, the project proponent could alternatively elect to participate in the SJMSCP and meet mitigation requirements in order to compensate for any project-related impacts to special status species. Following SJMSCP review, the San Joaquin County Council of Governments will provide to the project proponent SJMSCP Conditions of project approval, which shall be implemented by the project proponent. Requirements of the SJMSCP will include avoiding nesting seasons during construction. The project proponent shall notify SJCOG to determine Incidental Take Minimization Measures (ITMMs); perform surveys; and prepare agreement to implement ITMMs and pay fees, if required.

Implementation of these measures could require the creation of a conservation easement over agricultural land elsewhere in the project vicinity, the purchase of credits through a mitigation bank, or participation in the SJMSCP, if determined necessary. Implementation of any of these measures would ensure the continued availability of foraging and nesting habitat in the form of agricultural cropland. Because any of the measures would result in the protection of existing, cultivated agricultural lands to benefit wildlife, no adverse effects would occur, and no additional mitigation would be necessary.

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 U.S. Fish and Wildlife Service?*

No Impact

Sensitive habitats are those that are considered rare within the region, support sensitive plant and/or wildlife species, or function as corridors for wildlife movement. Four sensitive natural habitats, Coastal and Valley Freshwater Marsh, Great Valley Oak Riparian Forest, Northern Hardpan Vernal Pool, and Valley Oak Woodland, were identified by the CNDDB

and CNPS lists for the nine-quadrangle area. None of these habitat types is present within or adjacent to the study area. No riparian habitat was identified on site. Therefore, the proposed dairy expansion would not have a substantial adverse effect on any riparian habitat or sensitive natural community, and no impact would occur.

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact

No riparian wetlands were identified on site. Therefore, the proposed dairy expansion would not have a substantial adverse effect on any protected wetland, and no impact would occur.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less Than Significant Impact

No important native wildlife migration or travel corridors were detected within the project area. Implementation of the proposed dairy expansion would not interfere with the movement or migration of wildlife species, or impede the use of wildlife nursery sites, and a less-than-significant impact would result.

e) *Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?*

Less than Significant Impact

There is a mature valley oak tree on the project site that meets the definition of Heritage Oak Tree and is protected by San Joaquin County tree ordinance. The proposed dairy expansion does not propose removal of the oak tree. Any planned removal of the Heritage Oak Tree growing in the northwestern corner of the main property would be subject to County Code Section 9-1505.3 (Removal Requirements), which requires an approved Improvement Plan application. Since the Heritage Oak Tree is to be retained on site, it must be protected from construction-related damage as described in County Code Section 9-1505.5 (Development Constraints). These constraints include limitations on grade changes, trenching, construction of retaining walls, and paving; and the installation of protective fencing. In addition, any post-construction landscaping that is installed in the study area must be installed in a manner that does not compromise the health of retained Heritage Oak Trees. Landscaping guidelines are described in County Code Section 9-1505.6 (Landscaping) of the Tree Protection Ordinance and include limitations on non-plant landscaping materials, a description of plants permitted, limitations on planting

areas, and limitations on irrigation systems. The County would review construction plans for compliance prior to issuance of required building permits. Following compliance with County requirements, the project would not conflict with local policies or ordinances protecting biological resources, and a less-than-significant impact would result.

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?*

Less than Significant Impact

The SJMSCP was developed by SJCOG, and adopted by the County and the County's cities in 2000 to offset biological impacts created by projects within San Joaquin County. The SJMSCP covers all of San Joaquin County except for Federally-owned land. The stated purpose of the SJMSCP is to provide a strategy for balancing a need to conserve open space with a need to convert open space to other uses, while protecting the area's agricultural economy, preserving landowner rights, accommodating a growing population, and providing for long-term management of special status species (San Joaquin County 2009). The proposed project would be consistent with the Plan following implementation of Mitigation Measure BIO-1. Therefore, no conflict with the SJMSCP would occur, and a less-than-significant impact would result.

V. Cultural Resources Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		

VI. CULTURAL RESOURCES

Records of the known cultural resources found in San Joaquin County are included in the files of the Office of Historic Preservation, California Historical Resources Information System. A records search by the Central California Information Center, California Historical Resources Information Center was conducted in 2011 for the project area (Appendix D, available upon request). The records search concluded that no prehistoric or historic archaeological resources have been reported to the CCIC, nor have any cultural resource studies been reported. Historic maps on file with the CCIC suggest that the project site and cropland parcels may contain the following types of historic features: standing buildings and structures over 45 years old, historic building foundations and other structural remnants, artifact and refuse scatters or deposits, and railroad-associated features, may be found in the vicinity of the project.

a) *Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?*

Less Than Significant Impact with Mitigation Incorporated

Limited grading and ground disturbance would be necessary to prepare the construction areas for the proposed dairy freestall barn extension and dairy buildings. The proposed dairy expansion would include modification of one building over 45 years old, including modification of the calf barn (structure #14 on Figure 4). While project site buildings were not explicitly identified by the CCIC record search, according to the project applicant, there are a few buildings over 45 years old. The milk parlor was constructed in the 1930s or 40s, and the calf barn originated as a bull pen in the 1960s and has been modified numerous times (Woods, pers. comm. 2011). All additional existing structures would be maintained and integrated into the proposed project facilities. As

recommended by the CCIC, because this project would potentially alter an unrecorded historic resource, the following mitigation would be required:

Mitigation Measure CUL-1:

Prior to modification of structure #1 or #14 on the site plan, the project proponent shall retain a historical resources consultant for evaluation and formal recordation of these historic structures if deemed historic. The historical resources consultant shall submit records of the historic structures to CCIC, as appropriate.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Less Than Significant with Mitigation Incorporated

The CCIC records search concluded that no archaeological resources have been reported to the CCIC for the project site. Archaeological resources are suspected to be minimal because the dominant land use has been for agricultural uses (including leveling, cultivation, grading, and construction of the existing dairy). Thus, any archeological artifacts that might have been present may have been destroyed or have been moved off-site during the development of the site.

According to the San Joaquin County General Plan Background Report, significant and/or important cultural resources may exist in the subsurface of farmland (San Joaquin County 2009). However, all proposed project construction would occur approximately three miles from the nearest major stream or water body (Mokelumne River), and no excavation for building foundations would occur. Since there are no known archaeological resources within or adjacent to the project, and the project area is of low-sensitivity for these resources, it is unlikely that any archaeological resources would be disturbed. To ensure protection of unknown resources, the following measure would be required, and a less than significant impact with mitigation would result.

Mitigation Measure CUL-2

If prehistoric or historic-period archaeological resources are encountered during ground disturbing activities in the county, all activities within 100 feet shall halt and the County shall be notified. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that a project could damage a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with the County.

Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant with Mitigation Incorporated

The vast majority of paleontological specimens from San Joaquin County have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals such as mammoth, could be found virtually anywhere in the county, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County BR 2009). The whole of the site has been previously disturbed by previous dairy construction and farming operations, and no paleontological resources have been discovered. Neither is the project site near any watercourse. There are no paleontological or unique geological resources known from the site or area. However, ground-disturbing work such as site preparation and grading in the project area has the potential to impact paleontological resources. To minimize impacts to paleontological resources, Mitigation Measure CUL-2 above would be required to address the possibility that paleontological resources might be unearthed during any project-related ground disturbance activities. Therefore, the Project would have a less than significant impact with mitigation.

Mitigation Measure CUL-3:

Implement Mitigation Measure CUL-2.

d) *Disturb any human remains, including those interred outside of formal cemeteries?*

Less Than Significant with Mitigation Incorporated

No cemeteries, burial sites, or archaeological deposits containing human remains have been identified on the project site. Although it's highly unlikely, there could be a potential to disturb human remains. In the event of an unanticipated discovery of human remains during the construction or operation of the proposed project, Mitigation Measure CUL-4 would be required. Therefore, the proposed project would have a less than significant impact with mitigation.

Mitigation Measure CUL-4:

If remains of Native American origin are discovered during proposed project construction, it shall be necessary to comply with state laws concerning the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The County coroner has been informed and has determined that no investigation of the cause of death is required; and
- If the remains are of Native American origin:
  - √ The most likely descendants of the deceased Native Americans have made a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or
  - √ The NAHC has been unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.

VI. Geology / Soils Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to 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.				✓
ii) Strong seismic ground shaking?				✓
iii) Seismic-related ground failure, including liquefaction?				✓
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?		✓		
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?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓

VII. GEOLOGY/SOILS

The Woods Dairy Expansion project site is located within the Great Valley of California. The Great Valley is composed primarily of alluvial deposits from erosion of the Sierra Nevada Mountains located to the east and of the Coastal Ranges located to the west.

The topography of the project site is generally flat, with elevation ranging from approximately 20-25 feet above mean sea level (MSL).

a) *Expose people or structures to 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.*

No Impact

The Great Valley fault zone is located in southwestern San Joaquin County, though no faults or fault traces have been mapped within the project area (San Joaquin County 2009). Because no fault traces underlie the project site, no hazardous conditions would result from implementation of the project. Additionally, the implementation of the project would not lead to off-site effects related to fault hazards, nor would any existing hazards be exacerbated on- or off-site. There would be no impact.

ii. *Strong seismic ground shaking?*

No Impact

The probability of ground shaking increases for San Joaquin County (County) toward the southwestern County boundary related to the Great Valley fault system shown in Figure 14-1 of the County General Plan Background Report (San Joaquin County 2009). Agriculture, recreation, or other open space uses are more acceptable than urban uses for seismic hazard areas, and the proposed project would be categorized as a low risk use that is considered suitable in all ground-shaking zones (San Joaquin County 2009). San Joaquin County requires that all new construction comply with the seismic safety requirements of the California Building Standards 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. Therefore, no hazardous conditions related to groundshaking would occur with the implementation of the project. Additionally, the implementation of the project would not lead to off-site effects related to hazards related to seismic ground shaking, nor would any existing hazards be exacerbated on- or off-site. There would be no impact.

iii. *Seismic-related ground failure, including liquefaction?*

No Impact

While San Joaquin County has not recognized any specific areas subject to liquefaction hazard, based on known information, the Delta, and other areas of the County with

groundwater less than 50 feet from ground surface in unconsolidated sediment are susceptible to liquefaction (San Joaquin County 2009). Additional areas for liquefaction hazards include the County's wetland areas. Based on groundwater levels taken at the on-site monitoring wells in June 2010, depth to groundwater was approximately 40 feet. However, because no massive structures would be constructed with project implementation, the risk of liquefaction and subsequent building failure is low. Therefore, potential geologic hazards such as ground failure and liquefaction would not result in hazardous conditions for the project. Additionally, the implementation of the project would not lead to off-site effects related to hazards from ground failure or liquifacction, nor would any existing hazards be exacerbated on- or off-site. There would be no impact.

iv. Landslides?

No Impact

The project site is not within an area of known landslide potential. A field reconnaissance of the site indicated that the modified topography surrounding the active dairy facilities is generally level. Given this existing topography and the distance to active faults, landslides at this location are considered unlikely. Therefore, the project would not be exposed to potential geologic hazards, including the risk of loss, injury, or death involving a landslide.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact with Mitigation

There would be little need for grading and excavation with implementation of the proposed expansion project. Except for the proposed storage pond, there would be no cut or fill necessary for implementation of the proposed project since the areas proposed for construction have previously been graded and the topography of the active dairy facilities is flat. However, construction of the proposed expansion would occur over an approximate 2-acre area, and stormwater runoff during the construction period could result in the erosion of on-site soils, and siltation and sedimentation of waterways draining the site. Construction activities disturbing one or more acres are required by the State Water Resources Control Board (SWRCB) to obtain a General Construction Activity Stormwater Permit, which would require the proposed project to implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would contain required construction and management practices (termed BMPs), which would reduce soil erosion impacts. To ensure implementation of stormwater requirements and to soil erosion effects, the following mitigation measure would be required. Project compliance with State Water Resources Control Board regulations to avoid erosion siltation effects would reduce this impact to less than significant.

Mitigation Measure GEO-1:

The project applicant shall submit Permit Registration Documents (PRD) for the Construction General Permit Order 2009-0009-DWQ to the State Water Resources Control Board, and comply with, and implement, all requirements of the permit. A Legally Responsible Person (LRP) shall electronically submit PRDs prior to commencement of construction activities in the Storm Water Multi-Application Report Tracking System. PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the Storm Water Pollution Prevention Plan (SWPPP), a signed certification statement by the LRP, and the first annual fee. Following submittal of a Notice of Intent package and development of a SWPPP in accordance with the Construction General Permit, the applicant will receive a Waste Discharge Identification Number from the SWRCB. All requirements of the site-specific SWPPP, including any revisions, shall be included in construction documents and must be available on site for the duration of the project.

c) *Be located on a geological 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?*

Less than Significant Impact

The soils present in the area of the proposed expansion of active dairy facilities are Tokay fine sandy loam, 0 to 2 percent slopes (256) and Acampo sandy loam, 0 to 2 percent slopes. These soils generally do not have building limitations (NRCS 2016). The project area is not noted for unstable geologic formations susceptible to landslide or ground failure (San Joaquin County 2009). Because the area of the proposed expansion of active dairy facilities is not considered unstable, nor would construction of the dairy barns or storage pond result in soil instability, this would be a less than significant impact.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risk to life or property?*

No Impact

The project site is not located in an area of expansive soils according to the San Joaquin County General Plan Background Report Figure 14-2 (San Joaquin County 2009). Expansive soils are soils that expand when water is added, and shrink when they dry out. The shrink-swell potential of the project site soil is low (NRCS 2017); further, the proposed agricultural 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 reduce risks on the project site from geological hazards to levels considered acceptable for the State and region. Additionally, the implementation of the project would not lead to off-site effects related to hazards from expansive soils,

nor would any existing off-site hazards be exacerbated. There would be no impact, and no mitigation would be required.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal of wastewater?*

No Impact

No new sewage disposal systems are included as a part of the proposed dairy expansion, nor would the proposed improvements impact existing subsurface sewage disposal systems. No impact would result with project implementation. For a discussion of dairy wastewater disposal, see Section IX, *Hydrology / Water Quality*, below.

VII. Greenhouse Gas Emissions Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

VIII. GREENHOUSE GAS EMISSIONS

The District has received an ATC application package from the Woods Dairy to construct and operate a dairy expansion project to house a total of 905 cows. The Woods Dairy proposed expansion includes: extension of existing freestall barn (104 ft. x 200 ft. new construction, 104 ft. x 400 ft. proposed dimensions); new storage pond (95 ft. x 200 ft. & 11 ft. deep); hay barn (30 ft. x 200 ft.); shelter (30 ft. x 160 ft.); calf nursery barn (replacement); and feed storage area (Project). The Project is consistent with current agricultural zoning and will allow for agricultural-related operations.

Greenhouse Gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. There are no "attainment" standards established by the Federal or State government for GHGs. In fact, GHGs are not generally thought of as traditional air pollutants because GHGs, and their impacts, are global in nature, while traditional "criteria" air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through natural processes. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated carbons. Additional information on GHG and global climate change can be found in the District staff report titled: *Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act.*

Assembly Bill 32 (AB 32)

Assembly Bill 32 (California Global Warming Solutions Act of 2006) is a key piece of California's effort to reduce its GHG emissions. AB 32 was adopted establishing a cap on statewide greenhouse gas emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels. AB 32 requires CARB to establish regulations designed to reduce California's GHG emissions to 1990 levels by 2020. In executing its legislative mandate under AB 32, CARB developed a Scoping Plan

that contains the main strategies California will use to reduce GHG from Business-as-Usual (BAU) emissions projected for 2020 levels back down to 1990 levels. BAU is the projected emissions caused by growth, without any GHG reduction measures. CARB determined that a 29% reduction from BAU is necessary to achieve the 1990 GHG emissions level. On December 11, 2008, CARB adopted its AB 32 Scoping Plan, setting a framework for future regulatory action on how California will achieve the goal of reducing GHG emissions to 1990 levels. The Scoping Plan was updated in May 2014. The updated Scoping Plan includes recommended strategies to reduce GHG emissions in the agricultural sector, mostly involving GHG emission reduction and carbon sequestration programs.

Cap & Trade

The AB 32 Scoping Plan identifies a Cap and Trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The Cap and Trade program is implemented by the CARB and caps GHG emissions from the industrial, utility, and transportation fuels sectors – which account for roughly 85% of the state's GHG emissions.

The program works by establishing a hard cap on about 85% of total statewide GHG emissions. The cap starts at expected BAU emissions levels in 2012, and declines 2-3% per year through 2020. Fewer and fewer GHG emissions allowances are available each year, requiring covered sources to reduce their emissions or pay increasingly higher prices for those allowances. The cap level is set in 2020 to ensure California complies with AB 32's emission reduction target of returning to 1990 GHG emission levels.

The scope of GHG emission sources subject to Cap and Trade in the first compliance period (2013-2014), included:

- All electricity generated and imported into California. The first deliverer of electricity into the state is the capped entity (the one that will have to purchase and surrender allowances).
- Large industrial facilities emitting more than 25,000 metric tons of GHG pollution/year. Examples include oil refineries and cement manufacturers.

The scope of GHG emission sources subject to Cap and Trade during the second compliance period (2015-2017), expands to include distributors of transportation fuels (including gasoline and diesel), natural gas, and other fuels. The regulated entity will be the fuel provider that distributes the fuel upstream (not the gas station). In total, the Cap and Trade program is expected to include roughly 350 large businesses, representing about 600 facilities. Individuals and small businesses will not be regulated. Under the program, companies do not have individual or facility-specific reduction requirements. Rather, all companies covered by the regulation are required to turn in allowances in an amount equal to their total greenhouse gas emissions during each phase of the program. The program gives companies the flexibility to either trade allowances with others or take

steps to cost-effectively reduce emissions at their own facilities. Companies that emit more will have to turn in more allowances. Companies that can cut their emissions will have to turn in fewer allowances. Furthermore, as the cap declines, total emissions are reduced.

On October 20, 2011, CARB's Board adopted the final Cap and Trade regulation and Resolution 11-32. As part of finalizing the regulation, the Board considered the related environmental analysis and, consistent with CEQA requirements, approved CARB's functionally equivalent document (FED).

CEQA Requirements

In December, 2009, the California Natural Resources Agency (NRA) amended the CEQA Guidelines to include Global Climate Change, which is now generally accepted by the scientific community to be occurring and caused by GHG emissions. The amendments address analysis and mitigation of the potential effects of GHG emissions in CEQA documents. In their *Final Statement of Reasons for Regulatory Action,* NRA recognizes that the analysis of GHG emissions in a CEQA document presents unique challenges to lead agencies. NRA amended section 15064(h)(3) of the CEQA guidelines to add compliance with plans or regulations for the reduction of GHG emissions to the list of plans and programs that may be considered in a cumulative impacts analysis. In their *Final Statement of Reasons for Regulatory Action*, NRA discusses that AB 32 requires CARB to adopt regulations that achieve the maximum technologically feasible and cost effective GHG reductions to reach the adopted state-wide emissions limit. NRA goes on to state that a lead agency may consider whether CARB's GHG reduction regulations satisfy the criteria in existing subdivision (h)(3).

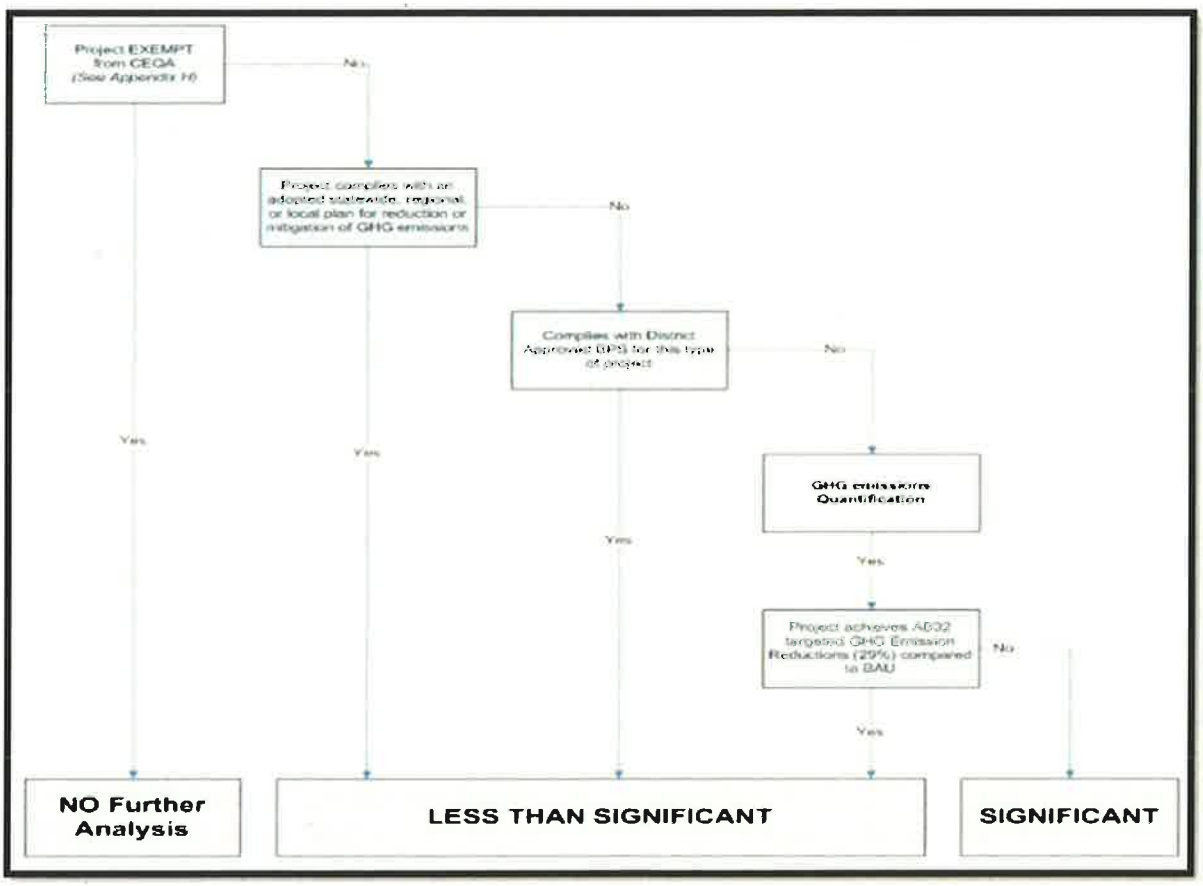
District CEQA Policy

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. On December 17, 2009, the District adopted the policy "*District Policy (APR 2005) – Addressing GHG Emissions Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*" and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. The policy applies to all District permitting projects that have an increase in GHG emissions, regardless of the magnitude of the increase. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change.

As illustrated below in Figure 7, the District's board-adopted policy for determining significance of project-specific GHG emissions employs a tiered approach. Of specific

relevance to Cap and Trade is the provision that: "Projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement best performance standards (BPS)." Projects that do not comply with such a plan or program must incorporate BPS or undergo a project-specific analysis demonstrating that GHG emissions would be reduced by at least 29%, as compared to BAU.

Figure 7: Determination of Significance for Stationary Source Projects



Determining the Significance of GHG Emissions for Projects Subject to an Approved GHG Emissions Reduction Plan

The NRA amended the CEQA Guidelines to include Global Climate Change and added compliance with plans or regulations to reduce GHG emissions to the list of plans and programs that should be considered in a cumulative impacts analysis. In their *Final*

Statement of Reasons for Regulatory Action, the NRA discusses that AB 32 requires CARB to adopt regulations that achieve the maximum technologically feasible and cost effective GHG reductions to reach the adopted state-wide emissions limit. NRA goes on to state that a lead agency may consider whether CARB's GHG reduction regulations satisfy the criteria in section 15064(h)(3).

The District's board-adopted policy determines that "Projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual or cumulative impact for GHG emissions. Such plans or programs must be specific in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency."

AB 32 and the AB 32 scoping plan adopted by CARB is a GHG reduction plan for CEQA purposes. It is directly and wholly responsible for meeting the GHG reduction targets for the State of California and is supported by an environmental review process that has been successfully defended in court as equivalent to, and compliant with, CEQA requirements. However, there are some sources of GHG emissions that are discussed in the AB 32 scoping plan that are not required to mitigate emissions via implementation of the plan, and some of the plan is devoted to implementing regulations that address existing emissions, and will have only minimal impact on increases in emissions. Since it is these increases that must be addressed under CEQA, the District conducts its own analysis to determine whether compliance with AB 32 and its scoping plan are adequate to conclude that a particular GHG emissions increase is less than significant.

Determination of Significance for Projects Subject to CARB's GHG Cap and Trade Regulation

One regulation proposed in AB 32 scoping plan that does address increases in GHG emissions is the Cap and Trade regulations discussed above. Facilities subject to the Cap and Trade regulation are subject to an industry-wide cap on overall GHG emissions, and any growth in emissions must be accounted for under that cap, so that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions. It is therefore reasonable to conclude that facilities subject to and in compliance with CARB's Cap and Trade requirements will not, and in fact, cannot, contribute significantly towards any global GHG emissions growth. While this inherent mitigation process is not a necessary component of a finding that compliance with a plan for the reduction of greenhouse gas emissions may be considered in a cumulative impact analysis [(CCR Section 15064(h)(3))], the fact that all growth in emissions at covered sources is mitigated provides a certainty that compliance with the Cap and Trade program eliminates any potential for significant impacts from those GHG emissions.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact

Determination of Significance of GHG Emissions for Projects Achieving AB 32 Targeted GHG Emission Reduction (29%) Compared to BAU and Projects Covered Under Cap and Trade Regulation.

The Woods Dairy is a facility that is not considered a covered entity under the Cap and Trade regulation, the regulation now includes distributors of transportation fuels (including gasoline and diesel), natural gas and other fuels. This accounts for combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives). As such, mobile sources, and off-road sources associated with the Project are covered under Cap and Trade regulation. Additionally, as discussed in the 2035 San Joaquin County General Plan, in order to be consistent with State statutes established by AB 32 and State objectives stated in Executive Order S-3-05, San Joaquin County has established a GHG reduction target for 2020 and goals for 2035 and 2050. The 2020 target establishes a firm, near-term standard that must be met of 15 percent below 2007 levels by 2020, following guidance from the CARB. This reduction is deemed by CARB to be consistent with the statewide AB 32 goal of reducing emissions to 1990 levels (San Joaquin County 2014).

In combination with state-wide GHG reduction measures, the San Joaquin County GHG reduction strategies, which address energy, transportation, waste, water/wastewater, and agricultural sources of GHG emissions, are expected to reduce countywide emissions by 2020 by an amount that would slightly exceed the 15 percent reduction target (San Joaquin County 2014).

Greenhouse Gas Emissions Calculations

Construction and operation of the Woods Dairy Expansion project would result in greenhouse gas emissions from direct and indirect sources. Greenhouse gases associated with operations of confined animal and agricultural activities include methane, nitrous oxide, ozone, and carbon dioxide. Several sources of these greenhouse gases are associated with animal confinement facilities: animal metabolic activity and animal housing; manure decomposition in waste deposits, treatment and storage areas, and field applied manure; on-field cultivation; fuel consumption; electricity use; and feed cultivation and transport.

Construction activities associated with the Woods Dairy Expansion project would result in short-term CO_2 emissions, a greenhouse gas. Construction-related emissions were calculated using CalEEMod Version 2016.3.2 (see Appendix B). GHG emissions from construction would result in a maximum of 41 metric tons/year of CO_2e.

Greenhouse gases associated with operations of confined animal and agricultural activities include methane, nitrous oxide, ozone, and carbon dioxide. Several sources of these greenhouse gases are associated with animal confinement facilities: animal metabolic activity and animal housing; manure decomposition in waste deposits, treatment and storage areas, and field applied manure; on-field cultivation; fuel consumption; electricity use; and feed cultivation and transport.

Milk production is the commercial dairy operation's single largest source of GHG emissions, at approximately 59 percent of total emissions. On the dairy farm, the most significant source of greenhouse gas emissions is the dairy cow: estimates of 35-80 percent (mean 50 percent) of GHG emissions are due to methane from enteric fermentation. Growing feed, both on dairies and crop farms, is milk's second most GHG-intensive process (Wightman 2008). The primary sources of these emissions include the production of commercial fertilizer, fuel use in machinery, and on-field production of nitrous oxide due to nitrification and denitrification of nitrogen (both chemical and organic) (Innovation Center 2008). Approximately 9-53 percent (mean 30 percent) of GHG emissions are from nitrous oxide emissions (manure management and nitrous fertilizers), and 16 percent of GHG emissions are from carbon dioxide coming from tractors, trucks, and electricity production (IDF 2009).

The digestibility of feed has a strong effect on the GHG emissions per kilogram of milk product; a 10 percent increase in feed digestibility in the intensively managed[2] system can reduce GHG emissions by approximately 10 percent (FAO 2010). In practice, however, the quality of the feed is interrelated with milk production and growth, so looking at the combined effect of changes in feed quality, milk production, and growth is more realistic. If an increase in milk production by 10 percent is assumed, parallel to the increased digestibility, the GHG emissions are reduced by 15.4 percent. In the situation where the growth rate is also increased, the GHG emissions are further reduced (FAO 2010). Today, many producers already reduce enteric methane emissions by maximizing feed efficiency and increasing production per cow, including the Woods Dairy.

Studies have shown that the use of best management practices, rather than the size or location of the dairy farm, makes the biggest difference in reducing GHG emissions (Paustian et. al. 2006). Because the decomposition of manure is one source of methane emissions, measures to comply with ROG limitations required by a District Permit to Operate would also reduce methane emissions.

For the Woods Dairy Expansion, GHG emissions were estimated using the Dairy Gas Emissions Model, Version 2.4, from the Pasture Systems and Watershed Management Research Unit, Agricultural Research Service, United States Department of Agriculture. The Dairy Gas Emissions Model (DairyGEM) is a software tool for estimating the greenhouse gas emissions and carbon footprint of dairy production systems. The full production system extends beyond farm boundaries, and is defined to include emissions

[2] Intensive dairy systems typically involve large numbers of animals raised on limited lands.

during the production of all feeds whether produced on the given farm or elsewhere. It also includes emissions that occur during the production of resources used on the farm such as machinery, fuel, electricity, and fertilizer. For a more detailed description of the model and results, including inputs, see Appendix E. Consistent with the modeling results, the District Dairy calculator found that GHG emissions from the animals and manure management alone would result in an increase of 750 metric tons CO_2e from existing operations (see Appendix E).

The proposed expansion would house a total of 500 mature dairy cows, which is below the minimum average annual animal population of 3,200 mature dairy cows (not including calves and heifers) identified by the EPA greenhouse gas mandatory reporting regulation[3]. Facilities that meet or exceed these populations need to conduct an analysis to determine if they emit more than 25,000 tons of CO_2e. While the EPA is currently not implementing subpart JJ, Manure Management of the Mandatory GHG Reporting Rule, and dairies that appear to fall under this rule do not currently need to report, it is recommended that these dairy operators maintain records on their manure management systems in accordance with the Rule should they be requested for data in the future.

Although the Woods Dairy is a facility that is not considered a covered entity under the Cap and Trade regulation, the regulation now includes distributors of transportation fuels (including gasoline and diesel), natural gas and other fuels. This accounts for combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives). Therefore, mobile sources, and off-road sources associated with the Project are covered under Cap and Trade regulation. This would result in an overall decrease in mobile fuels and related GHG emissions from the milk distribution portion of mobile sources.

The San Joaquin County determined that with implementation of the 2035 General Plan policies and reduction strategies, the 2035 General Plan Update would achieve slightly more than a 15 percent reduction from 2007 levels by 2020 consistent with the statewide AB 32 goal of reducing emissions to 1990 levels (San Joaquin County 2014). The proposed project is consistent with the San Joaquin County's land use designation for the site. Further, Best Management Practices currently used on the dairy have also resulted in GHG emission reductions. Therefore, while the project would result in an increment of increase in CO_2e emissions of 750 metric tons, the District finds that because the Project would comply with AB 32 targeted GHG emission reductions and with Cap and Trade regulation for Project mobile sources, the project would therefore have a less than significant individual and cumulative impact on global climate change.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

[3] The Rule applies to livestock facilities with manure management systems, but does not require reporting of emissions of methane via enteric fermentation or land application of manure, which are included in proposed project calculations. However, the project cropland acts as a carbon sink and results in a reduction in net emissions.

Less Than Significant Impact

As discussed above, the Project would be in compliance with AB 32 and any relevant greenhouse gas regulations (e.g., Cap and Trade). As such, the Project would not conflict with an applicable plan, policy, or regulation for the purpose of reducing greenhouse gas emissions. Therefore, the Project would have a less than significant impact on applicable GHG plans, policies or regulations.

VIII. Hazards and Hazardous Materials Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
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?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
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?				✓
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 for people residing or working in the Project area?			✓	
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?			✓	
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

IX. HAZARDS & HAZARDOUS MATERIALS

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less Than Significant Impact

During project operation, the feed lanes, silage storage area, and wastewater collection ponds are treated with spray and biological controls to minimize nuisance insect populations. In addition, there would be continued use of fertilizers and biocides on the site for crop cultivation. The dairy and associated farming operations would continue to store and use agricultural chemicals, including fuels, biocides, and herbicides, in amounts common with other agricultural operations in the area, County, and State. The Woods Dairy has been issued a Hazardous Waste Tiered Permit by San Joaquin County that is renewed each year for the storage of fuels, oils, and other commonly used hazardous materials. There is no aspect of the proposed dairy and farming operation that would require the use of unusual amounts or types of agricultural chemicals. All chemicals would be stored in an enclosed barn with a concrete floor prior to use. The potential risk of release is further reduced within the project area and region because nutrient-rich process water would be used to fertilize on-site crops, thereby reducing or precluding the need for chemical fertilizers. Similarly, available dry manure would be used elsewhere in the region for fertilizer and soil amendment, in place of chemical fertilizers. Storage, disposal, and transportation of these hazardous materials are regulated by County, State, and Federal agencies. Compliance with these requirements would reduce the risk of hazards to the public to a less-than-significant level, and the Project would not be expected to expose the public to a substantial risk from the transport, use, or disposal of hazardous materials. Therefore, the Project would have a less than significant impact.

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?*

Less Than Significant Impact

As described above, the dairy operations involve the minor transport and use of hazardous materials. However, the handling and transport of hazardous materials would be performed in compliance with applicable rules and regulations, and the risk from upset or accident conditions would be less-than-significant. Hazardous materials handled during construction or operations will be in accordance with Federal, State, and local regulations (such as the Solid Waste Management Act, the Hazardous Materials Transportation Act, and the Hazardous Waste Control Act). Also, the California Department of Industrial Relations Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing safety standards and assuring

worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. Therefore, the impacts would be less than significant.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant Impact

The nearest existing school, Henderson Community Day School, is located over 2 miles away from the project site. Therefore, the dairy operations would not result in hazardous emissions or handle hazardous waste within 0.25 miles of an existing or proposed school. Therefore, the Project would have a less than significant impact.

d) *Be located on a site which is included on a list of hazardous materials site compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment?*

No Impact

According to the Department of Toxic Substances Control (DTSC) EnviroStor Database, the Project is not located on a site that meets the definition of Government Code Section 65962.5, which requires specific hazardous waste facilities to submit required information to the DTSC. Therefore, there would be no impact.

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 for people residing or working in the Project area?*

Less than Significant Impact

There are six public-use airports located in San Joaquin County including: Stockton Metropolitan, Tracy Municipal, Kingdon, Lodi (Precissi), Lodi (Lind's), and New Jerusalem. The Kingdon Executive Airport is located approximately 1 mile south/southwest of the project site, and the Lodi Airpark is located approximately 2.1 miles southeast of the project site – both are included in the San Joaquin County Airport Land Use Compatibility Plan (Plan) (San Joaquin County ALUC 2009). The project site is located within the Airport Influence Area for both of these airports. Agricultural activities, including a dairy, are allowed uses within Airport Influence Areas (San Joaquin County ALUC 2009). Although there would be a minor increase in the number of workers on site as a result of the project, the proposed expansion would not conflict with the maximum

density requirements of the Plan, and potential impacts from safety hazards would be less than significant.

f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?

Less than Significant Impact

There is a private air strip/haul road located on the project site. Private airstrips in this area are generally used for agricultural purposes and would not result in a safety hazard for employees of the proposed project, and a less-than-significant impact would result with project implementation.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact

In the vicinity of the project site, the County designates State Route 12 as an Emergency Evacuation Route as shown on Figure 9-12 of the San Joaquin County General Plan Background Report (San Joaquin County 2009). The proposed project would not result in the modification or blockage of any evacuation route, or result in an increased concentration of large numbers of persons in an at-risk location. Further, no modification of area intersections is proposed by the project, and the project would not add significant amounts of traffic that could interfere with emergency response. Therefore, a less-than-significant impact would result with project implementation.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact

The San Joaquin County General Plan Background Report (Figures 14-21 and 14-23) identifies the project area as non-wildland/non-urban with low wildland urban interface fire threat (San Joaquin County 2009). The Project would not expose people or structures to significant risk of loss due to a potential wildfire. Therefore, the Project would have a less than significant impact on wildfires.

IX. Hydrology / Water Quality Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			✓	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?		✓		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			✓	
f) Otherwise substantially degrade water quality?		✓		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓	
j) Inundation by seiche, tsunami, or mudflow				✓

X. HYDROLOGY / WATER QUALITY

Dairies pose a number of potential risks to water quality, primarily related to the amount of manure and wastewater that they generate. Manure and wastewater from animal confinement facilities can contribute pollutants such as nutrients (nitrogen), ammonia, phosphorus, 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 water and groundwater.

A monitoring well network was installed in 2011 on a voluntary basis in order to facilitate the CEQA process for the proposed dairy expansion, and in anticipation of the requirement of Individual Waste Discharge Requirements (WDR).

General Order for Existing Milk Cow Dairies and Individual Waste Discharge Requirements

In general, the Waste Discharge Requirements (WDR) Program regulates point discharges that are exempt pursuant to Title 27 of the California Code of Regulations[4] and not subject to the Federal Water Pollution Control Act. In California, the permitting authorities for WDRs are the Regional Water Quality Control Boards (RWQCB). The CVRWQCB has jurisdiction over the project site. The CVRWQCB Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies R5-2013-0122 (General Order) implements the State laws and regulations relevant to confined animal facilities. Under the General Order Waste Discharge Permit Program, Animal Feeding Operations are prohibited from discharging waste into surface water or into groundwater that is directly connected to surface water.

The General Order only applies to owners and operators of existing milk cow dairies (dischargers) in the Central Valley Region. For the purposes of the General Order, existing milk cow dairies are those that were operating as of October 17, 2005 and filed a Report of Waste Discharge (ROWD). Dairies that did not file a 2005 ROWD, new dairies, and existing dairies expanding the mature cow number established under the 2005 ROWD by greater than 15 percent are not covered under the General Order and are required to obtain coverage under Individual WDRs. All dairies covered under the General Order are required to:

- Comply with all provisions of the General Order,
- Submit a Waste Management Plan (WMP) for the production area,
- Develop and implement a Nutrient Management Plan (NMP) for all land application areas,

[4] Subsection 20090 of Article 1, Subchapter 2, Chapter 7, Division 2, Title 27 of the California Code of Regulations.

- Monitor wastewater, soil, crops, manure, surface water discharges, and storm water discharges,
- Monitor surface water and groundwater,
- Keep records for the production and land application areas, and
- Submit annual monitoring reports.

The NMP and WMP describe the regulatory requirements for the facility, and together they serve as the primary tool to prevent groundwater contamination and poor operations. The General Order establishes a schedule for dischargers to develop and implement their WMP and NMP, and requires them to make facility modifications as necessary to protect surface water, improve storage capacity, and improve the facility's nitrogen balance before all infrastructure changes are completed. In addition, Best Management Practices (BMP) intended to minimize surface water discharges and subsurface discharges at dairies are required.

The General Order includes a provision that requires compliance with Monitoring and Reporting Program (MRP) R5-2013-0122. Under the MRP, and based on an evaluation of the threat to water quality at each dairy, the CVRWQCB may require the installation of monitoring wells to comply with the General Order MRP. The General Order and Individual WDRs also established the ability for individual dairies to participate in a Groundwater Representative Monitoring Program (RMP) as an alternative to an individual requirement for groundwater monitoring. The RMP establishes a regional monitoring network for the member dairies of the Central Valley Dairy Representative Monitoring Program (CVDRMP). The regional monitoring network is established by installing individual monitoring well networks at dairies with hydrogeologic and land use characteristics typical of the area. Groundwater monitoring results for these dairies are then extrapolated to other member dairies of the RMP, theoretically removing the need to install monitoring well networks on an individual basis. The Woods Dairy is a member of a Groundwater Monitoring Coalition that uses the onsite groundwater monitoring wells.

Though the CVRWQCB recognizes that degradation of high-quality groundwater will still occur pursuant to the General Order, the implementation of nutrient management plans, waste management plans, enhanced management practices within the production area, and improved containment features for new and expanding dairy wastewater retention ponds will limit the amount of degradation that will occur under the General Order and will not cause long-term impacts to beneficial uses. Consistent with the State Anti-Degradation Policy, the General Order establishes requirements and standards that will result in the implementation of best practical treatment measures to limit the degradation caused by dairy discharges (General Order R5-2013-0122).

The Woods Dairy has been previously regulated under the 2007 General Order with 2011 revisions, which has been replaced by the Reissued Dairy General Order (R5-2013-0122). As established by the ROWD submitted for the existing dairy to the CVRWQCB in October 2005, the State-permitted herd size for the dairy is a maximum of 170 mature

cows (milk and dry cows) for the facility, with regulatory review required for expansions of greater than 15 percent above this value. Since the proposed expansion would increase the mature cow number established under the WDR by greater than 15 percent, the proposed expansion would require a new individual WDR. The individual WDRs will be similar to the General Order. Planning documents related to these requirements include a Nutrient Management Plan and Waste Management Plan.

Nutrient Management Plan and Waste Management Plan. The NMP/WMP planning process is used to implement best management practices for dairies. The NMP/WMP are planning documents used to describe facility operations, develop wastewater disposal options, and outline mitigation measures for each dairy. These documents are required to be revised as appropriate for the operation. Specific elements related to the number and type of animals dictate the size of a facility, fresh/flush water needs, and wastewater generation. Nitrogen and salt balance calculations based on the herd description, housing requirements (i.e., flush freestalls or dry lots), acreage available for land application, and crop nutrient removal rates are made to determine the nitrogen and salt uptake for the proposed cropping pattern. On-site wastewater plans, storage elements, and storm water planning may be modified based on the calculations contained in the NMP/WMP.

Irrigated Lands Regulatory Program. A range of pollutants can be found in runoff from irrigated lands, such as pesticides, fertilizers, salts, pathogens, and sediment. The Irrigated Lands Regulatory Program (ILRP) of the CVRWQCB regulates discharges from irrigated agricultural lands throughout the Central Valley. Its purpose is to prevent agricultural discharges from impairing the surface waters that receive the discharges. To protect these waters, RWQCBs have issued conditional waivers of WDRs to growers that contain conditions requiring water quality monitoring of receiving waters and corrective actions when impairments are found. The Long-term Irrigated Lands Regulatory Program General Orders adopted by the RWQCB protect both surface water and groundwater throughout the Central Valley.

There is significant overlap between the ILRP and the Dairy Programs with regard to regulatory requirements, monitoring, and best management practices. The Woods Dairy is not anticipated or likely to be regulated under the ILRP program. However, the ILRP regulates discharges from off-site agricultural operations receiving liquid or solid manure from the Woods Dairy.

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact

The proposed project as planned would be required to use best management practices, engineering, and design consistent with local and state regulations. A proposed NMP/WMP for the expanded operations at the Woods Dairy has been prepared pursuant to the requirements of the CVRWQCB. The San Joaquin County Environmental Health

Division requires an approved manure management plan for all dairies (San Joaquin County Code 9-605.6 (k)(4)).

The NMP/WMP describes the regulatory requirements for the facility, and together serve as the primary tool to prevent groundwater contamination and poor operations. A professional engineer registered in the State of California and a Certified Crop Advisor completed the required elements of the NMP/WMP. As reported in the WMP, there would not be a significant increase in manure/nutrient loading to the application fields with the increase in cow numbers in the proposed expansion. The proposed expansion would be under an individual WDR, requiring additional monitoring, over and above the General Order. Significant operational and reporting requirements will be required as part of the individual WDR process, including the following nutrient management practices:

- Discharge reporting,
- Groundwater monitoring,
- Wastewater sampling and application monitoring,
- Irrigation application monitoring,
- Facility and land application visual inspections,
- Crop nitrogen/phosphorus uptake monitoring, and
- Field specific nutrient budgeting.

Based on the operations described in the NMP/WMP, the proposed dairy expansion is anticipated to achieve below the whole farm balance of 1.4, which indicates it would discharge nitrogen at less than 1.4 times the plant uptake rate for nitrogen. Additional requirements of later phases of the NMP/WMP would further reduce potential impacts from waste discharge.

The General Order establishes a schedule for existing dairies to develop and implement their WMP and NMP and requires them to make interim facility modifications as necessary to protect surface water, improve storage capacity, and improve the facility's nitrogen balance before all infrastructure changes are completed. In compliance with the requirements of the CVRWQCB, the proponents of the Woods Dairy have completed the required components of the WMP and NMP of the General Order, and are on schedule to complete additional components. The Individual Permit will require a slightly modified schedule and component list.

Compliance with the CVRWQCB General Order, monitoring requirements, and mitigation measures contained in this document would ensure that the dairy expansion project would not violate any water quality standards or waste discharge requirements, and a less-than-significant impact would result.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Less Than Significant Impact

Recent Department of Water Resources (DWR) records indicate that the groundwater levels near the project have fluctuated from approximately 45 feet to 52 feet depth to groundwater between 2003 to 2013 at one well north of the site, and 37 feet to 40 feet depth to groundwater between 2011 to 2013 at a well south of the site (DWR 2016). According to the project applicant, groundwater levels at the project site are approximately 38 feet depth to groundwater (as of September 2017).

The Woods Dairy uses groundwater as the primary water source for on-site activities, and the proposed operations would continue to use irrigation water from on-site wells. Recycled groundwater would be reused in the milkhouse and for sprinkling at a rate of approximately 4,908 gallons/day. The use of groundwater for animal consumption, milk cooling, and milkhouse wash down would be approximately 3.1 million gallons per year compared to 2.2 million gallons per year for the existing milkbarn use. Most of the water used at the dairy barn is and would continue to be reused for irrigating crops. Based on the cropping pattern set forth in the NMP, groundwater use for irrigation is estimated at 800 acre-feet (261 million gallons)[5]. Implementation of the proposed project would not result in significant changes in cropping pattern or irrigation use; therefore, the increase in water use would only be from the milk barn use, which is less than 1.2 percent of the water used on the dairy, and the proposed increase in water use at the dairy would be relatively minimal compared to overall water use.

Groundwater overdraft conditions have been documented extensively within San Joaquin County and specifically the Eastern San Joaquin Ground Water Basin, where the project is located. While the proposed dairy expansion would result in an increase in overall water use, the majority of the water would be used for irrigation rather than consumptive uses, which could result in groundwater recharge via irrigation percolation. Therefore, impacts from groundwater depletion from this operation would be considered less than significant.

[5] Animal count numbers presented in the existing WMP differ slightly from the Project Description. This water quality analysis uses the best available information to represent the proposed dairy modification project, including water use as calculated in the existing and proposed WMPs despite minor animal count discrepancies. No adjustment to the values was warranted for this analysis.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?*

Less Than Significant Impact with Mitigation

There are no natural water features on the site. The Mokelumne River and Lodi Lake are approximately 3.5 miles east of the project site, and there would be no alteration of the course of a stream or river with project implementation. The project would result in the extension of a freestall barn, hay barn, shelter, and supporting facilities over an approximate 2-acre area at a previously existing dairy. Stormwater runoff during the construction period could result in siltation and sedimentation of waterways draining the site. Construction activities disturbing one or more acres are required by the State Water Resources Control Board (SWRCB) to obtain a General Construction Activity Stormwater Permit. See Section VI, *Geology and Soils*, question (b) for a discussion of these permit requirements. To ensure implementation of stormwater requirements and to avoid siltation effects, Mitigation Measure GEO-1 would be required. As discussed in Section VI, *Geology and Soils*, question (b), project compliance with State Water Resources Control Board regulations to avoid siltation effects as required by Mitigation Measure GEO-1 would reduce this impact to less than significant.

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less than Significant Impact

Construction and operation of the Woods Dairy Expansion would result in an increase in impervious surfaces, potentially increasing runoff volumes and velocities. The facility includes an existing irrigation system that minimizes the potential for runoff. There is a tail water return system on the liquid application areas, except for 40 acres. Stormwater generated at the project site that has contacted manure from existing areas with impermeable surfaces is collected and routed to the existing wastewater ponds, and would continue to be managed in this manner with project implementation. Currently, only some of the uncontaminated stormwater runoff from roofed buildings is directed to the wastewater ponds; stormwater from guttered buildings is directed to surrounding fields. Proposed project improvements would include installation of roof drains on existing and proposed buildings to direct roof runoff away from the wastewater ponds and directly to the fields.

Under State regulations, the proposed dairy expansion must be designed to retain all facility wastewater generated, together with all precipitation on, and drainage through, manured areas during a 100-year, 24-hour storm event. All precipitation and surface drainage outside of manured areas would be diverted away from manured areas unless it would be fully retained (CCR Title 27, Division 2, Subdivision 1 22562(a)).

The runoff from increased impervious surfaces outside of manured areas may be substantial during intense storm events. However, the annual rainfall for the project area is relatively low, and under normal circumstances, little runoff would be expected. Compliance with state regulations would reduce surface drainage impacts associated with runoff from dairy facilities to a less-than-significant level. Because all stormwater generated by the project would be collected and maintained within the project proponent's larger property, no additional drainage would reach regional waterways as a result of the project, and no flooding would occur on- or off-site. No adverse effects due to runoff would occur, and no mitigation would be necessary.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Less Than Significant Impact

As discussed above, the Project site is currently developed for agricultural production activities. All stormwater generated by the project would be collected and maintained within the project proponent's larger property. Compliance with state regulations would reduce surface drainage impacts associated with runoff from dairy facilities to a less-than-significant level.

f) *Otherwise substantially degrade water quality?*

Less Than Significant Impact

Surface water quality - No natural surface water bodies have been identified on the dairy site or proposed land application area. The irrigation system consists of a surface flood system with a tail water return system on the liquid application areas, except for 40 acres. For the 40 acres without tail water return, the tail water is diverted to surface drainage ditches and maintained on site by berms. During winter month rainy periods, no wastewater application would occur, thereby minimizing the potential for degradation of surface water quality. As required by the General Order WDRs, the dairy operator must document compliance with provisions to prevent backflow or direct discharge of wastewater away from surface water resources. Locations of cross-connections with wastewater and surface water must be identified, along with how backflow can or does occur at each location and any current backflow preventive measures. The General Order requires completion of a self-certification form for backflow prevention into surface water. The continued use of good farming practices and application of wastewater at agronomic rates as required by the General Order would minimize potential impacts. Because no surface water discharge is proposed, no significant impacts would occur.

Groundwater quality - The proposed dairy expansion has the potential to impact the underlying groundwater quality with nutrients, salts, and other compounds. Based on two

sampling events in 2017, elevated concentrations related to nitrates and salts have been observed in shallow groundwater in the monitoring wells on-site. As shown in Appendix F (available upon request), the Total Dissolved Solids (TDS) and nitrate as nitrogen exceeded the California Primary Maximum Contaminant Limits (MCLs) of 500 mg/L TDS and 10 mg/L as N, with observed concentrations ranging up to 900 and 52 mg/l respectively. The Central Valley Dairy Representative Monitoring Program (CVDRMP), developed in accordance with General Order requirements and with review by the CVRWQCB, has found that shallow groundwater has been affected across the Central Valley due to historic or current dairy operations, especially underlying cropland.

The Woods Dairy Expansion project would continue to concentrate animals and their wastes within the feeding areas, and to a lesser degree, within open corrals. Concrete lined feed lanes would flush wastes to the settling pond to perform solids separation and the liquid portion would go to a wastewater pond for additional treatment and storage. As required by the General Order, the production areas are required to be managed to limit the extent to which wastewater can infiltrate into the underlying materials.

Following solids removal and additional settling in the storage pond, the wastewater with dissolved constituents would be stored in the pond for later application in irrigation water to crops. All basin structures, which are of earthen construction, would continue to be subject to regular maintenance.[6] The existing dairy wastewater ponds have the potential to impact groundwater because they contain elevated concentrations of inorganic and organic constituents, and because hydraulic pressure and gravity force liquids downward through soils to groundwater. The proposed project includes an additional storage pond to be constructed in accordance with Individual WDR requirements.

With implementation of the proposed dairy expansion, cropped acreage would be reduced from 205 acres to 204 acres. Dry and liquid manure are used to fertilize dairy cropland. A tailwater return system, composed of berms, piping, sumps, and a pump system, is used to prevent the movement of water off site and allow the recycling of applied wastewater.

The proposed operations must comply with the NMP and WMP as proposed by the CVRWQCB to be issued in the individual WDR. The proposed conditions WMP and NMP represent manure and stormwater management operations at full buildout of the

[6] As specified in the General Order, the existing wastewater retention ponds must be in compliance with Title 27 design standards. However, these design standards have not been found to be protective of groundwater under all conditions, and the immediate replacement of these wastewater retention ponds is not a practicable option for many dairies. Therefore, the CVRWQCB considers the best practical treatment for existing ponds to be an iterative process whereby the ponds are evaluated (either under an individual monitoring program or under the RMP) to determine whether or not they are protective of the underlying groundwater, and upgraded or replaced on a time schedule that is as short as practicable if they are found not to be protective. The General Order contains a time schedule to bring any deficient management practices (including wastewater retention ponds) into compliance.

dairy expansion project. The proposed dairy expansion would be constructed in several phases. Cow numbers would be increased as new facilities allow. As the expansion phases of the dairy occur, the WMP and NMP would be modified to reflect changes to operations and cow numbers at that stage of expansion and resubmitted to the CVRWQCB.

The NMP demonstrates that the proposed dairy facility would, after off-site disposal of solid wastes, comply with the nitrogen loading groundwater protection requirements of the CVRWQCB. Field application of phosphorus, potassium, and salts are calculated and managed under the General Order. Salt tolerance of crops and yield reductions can vary depending on various factors, such as irrigation management, the crop being grown, and the site conditions. While the General Order does not regulate a nutrient balance ratio for phosphorus, potassium, and salts, it does require that if monitoring indicates levels of these elements are causing adverse impacts, then application rates must be adjusted downward to prevent or correct the problem. The intent of regulatory requirements is to implement operational improvements and monitor groundwater quality to assess impacts. Long-term groundwater and soil monitoring would continue to be used to determine the success of the program on a regular basis and determine the need for additional action.

The proposed project as planned would be required to use best management practices, engineering, and design consistent with local and state regulations. Because of the existing groundwater conditions of contamination, the proposed dairy expansion may result in additional groundwater impacts despite operational improvements and best management practices required by the NMP and WMP. This would be a potentially significant impact. To minimize degradation of groundwater, the CVRWQCB will incorporate the following mitigation measures into the individual WDR permit requirements for the expansion. The following mitigation protocol mirrors CVRWQCB requirements to quantify and evaluate water quality and determine necessary measures to remediate water quality conditions. It includes monitoring of the effectiveness of implemented measures, and modification or addition of measures if water quality problems persist.

Mitigation Measure HYD-2a:

The applicant shall comply with requirements of the NMP/WMP, and implement all CVRWQCB requirements included in the individual WDR for the proposed expansion.

Mitigation Measure HYD-2b:

As set forth in the NMP, proposed application rates of liquid and/or solid manure shall not exceed agronomic rates. Nutrient samples shall be collected prior to and during applications periods to confirm agronomic rates within all portions of cropped areas receiving manure, and to protect water supplies. Soil testing frequency for nitrogen, potassium, phosphorus, and salts are described in the NMP. Modifications to the NMP may be required as outlined in the individual WDR for the proposed expansion to be issued by the CVRWQCB.

Mitigation Measure HYD-2c:

The proposed project includes an additional storage pond. Prior to the construction of any new lagoon or settling pond; or in the event that the design, construction, operation and/or maintenance of the lagoons and/or ponds is not protective of water quality, the project applicant shall submit a design for review and approval by the CVRWQCB. The design shall conform to either of the options described below:

Tier 1: A pond designed to consist of a double liner constructed with 60-mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of Title 27) between the two liners would be considered to be consistent with Resolution 68-16.

Tier 2: A pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 or equivalent and must demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality as required in the WDR specifications.

Any necessary measures shall be incorporated into the individual WDR issued for the facility.

Mitigation Measure HYD-2d:

The CVRWQCB may require an industry-wide or site-specific salinity report to be submitted to the CVRWQCB for review and approval prior to operation or final inspection. The salinity report shall identify sources of salt in waste generated at the dairy; evaluate measures that can be taken to minimize salt in the dairy waste; and include an affirmative commitment by the applicant to implement measures identified to minimize salt in the dairy waste to meet Basin Plan requirements. Any necessary measures shall be incorporated into the WDR issued for the facility or become a required deliverable of the WDR.

Mitigation Measure HYD-2e:

Annual groundwater monitoring of on-site monitoring wells on the project site under the General Order and individual WDR shall be completed for the dairy operator by the Groundwater Monitoring Coalition. Surrounding properties with domestic water supply well within 500 feet of the land application property may be sampled for nitrate and E.C. at a minimum. An updated well monitoring schedule shall be incorporated into the WDR issued for the facility.

Mitigation Measure HYD-2f:

After project implementation and subsequent groundwater monitoring, if the dairy shows increased concentration in groundwater of constituents of concern, additional manure exportation, a reduction in herd size, or additional crop acres may be necessary to accommodate the proposed expansion. A new Report of

Waste Discharge (ROWD) may be required by the CVRWQCB. The ROWD shall clearly demonstrate that the herd size will not constitute a threat to groundwater quality. If necessary, the CVRWQCB shall revise the WDR issued to the facility.

Monitoring as required by the CVRWQCB would determine if corrective actions are necessary to maintain the nutrient balance on this facility. Because the above mitigation measures would ensure compliance with CVRWQCB regulations protective of water quality, potential impacts to groundwater quality would be reduced to less than significant.

Impacts to water quality at off-site locations as a result of project operations. The proposed herd increase would result in an overall increase in manure and associated pathogens produced at the project site. The manure could also contain residual amounts of contaminants such as hormones, antibiotics, or pesticides. Therefore, manure process water applied to fields may contain these pathogens and contaminants.

While implementation of the General Order and the San Joaquin County Well Ordinance would minimize potential impacts from pathogen contamination on site, the proposed dairy modification includes the increased export of manure generated from the facility. The Long-term Irrigated Lands Regulatory Program General Orders adopted by the RWQCB (see Regulatory Setting of this section) provide general waste discharge requirements to protect ground and/or surface waters for owners and operators of irrigated lands throughout the Central Valley who join an approved third-party group or coalition. The Individual Discharger General Order (Order R5-2013-0100) regulates waste discharges from irrigated lands for individuals that are not enrolled under WDRs administered by a third-party. All growers are required to submit farm information to either their coalition or the RWQCB. These include both a farm evaluation and a nitrogen management plan. The Farm Evaluation helps determine what farm practices are currently being implemented and whether any improvements can be made to protect water quality. A significant amount of adsorption[7] of nutrients to soil particles and inactivation of pathogenic organisms would be expected to occur in the fields, and potential impacts to water quality at off-site fields receiving exported liquid and dry manure would be reduced. The growers are required to implement management practices to protect surface water in areas where monitoring has identified problems.

As defined by the adopted Irrigated Lands Program General Orders, surface and groundwater water monitoring and corrective actions conducted by water quality coalitions and individuals would reduce this potential impact to water quality at off-site fields to less-than-significant levels.

Water supply pathway for pollutant migration - Existing irrigation and water supply wells (either active or abandoned) in site proximity that do not meet current wells standards of construction may act as conduits for pollutant migration to the subsurface. If any of the

[7] Not to be confused with absorption, adsorption is the adhesion of atoms, ions, or molecules from a gas, liquid, or dissolved solid to a surface. Absorption is the process in which a fluid permeates or is dissolved by a liquid or solid.

wells were not constructed with effective sanitary seals upon construction, or have been damaged since installation, surface water may seep into the wells and the underlying aquifer, causing water quality degradation.

The San Joaquin County Well Ordinance (Code Section 9-1115.6) recognizes the importance of protecting water quality from the release of animal pathogens. In addition, the CVRWQCB requires that all process water that comes into contact with wastewater be collected and stored in the ponds with low permeability liners, reducing the potential release of pathogens to water supplies. While project monitoring wells would meet regulations set forth above, existing irrigation and domestic wells at the project site may not meet current San Joaquin County standards for well protection as set forth below, and thereby may be a potential conduit for groundwater contamination. This would be a potentially significant impact.

Mitigation Measure HYD-3:

Prior to issuance of any building permit, the project proponent shall have all existing water supply wells at the facility site and property inspected by a qualified professional to ensure that each well is properly sealed at the surface to prevent infiltration of waterborne contaminants into the well casing or surrounding gravel pack. If any of the wells are found not to comply with the San Joaquin County Water Well Ordinance standards, the project applicant shall retain a qualified professional as described in the respective Ordinance to install the required seal or functional equivalent including setbacks distances of 100 feet from manured areas as required by the CVRWQCB General Order. Documentation of the inspections and seal installations, if any, shall be provided to the CVRWQCB prior to commencement of dairy expansion operations.

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

No Impact

The site of the Woods Dairy Expansion project is located in Flood Zone X as identified by the Federal Emergency Management Agency. Flood Zone X is an area that is determined to be outside the 100- and 500- year floodplains. The proposed dairy expansion does not include the construction of any additional housing. Although there is one residence located on the project site, since the project site is located outside of flood hazard areas, no residents would be exposed to significant risk of flooding. Therefore, implementation of the project would not expose housing to a risk of flood damage, and no impact would result.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact

As stated above, the project site is located outside of the 100-year flood hazard area. Since the project is outside of a flood zone, construction of the proposed freestall barn extension and other proposed facilities would not place structures in a floodplain and thereby redirect flood flows, and no impact would result.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact

According to the San Joaquin County General Plan, the project area is within the dam failure inundation area of the Camanche, Pardee, and Salt Springs Reservoir dams. While the proposed dairy expansion project would result in a small increase of workers at the project site, the risk of flooding from dam failure is considered very low, since dams are evaluated regularly to verify their structural integrity, including their resistance to stresses that could result from local or regional earthquakes. Thus, implementation of the project would not expose persons or property to flood risks as a result of the failure of a levee or dam, and a less-than-significant impact would result.

j) Inundation by seiche, tsunami, or mudflow?

No Impact

The project area is not near any ocean, lake, or other large waterway. Thus, implementation of the project would not expose persons or property to inundation by seiche, tsunami, or mudflow, and no impact would result.

X. Land Use / Planning Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			✓	

X. LAND USE/PLANNING

a) Physically divide an established community?

No Impact

The land surrounding the project site and in the vicinity is primarily developed for agriculture. Adjacent land uses include similar agricultural uses, such as row crops. 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, nor is the site within the sphere of influence of any city. Because the project could not divide a community or conflict with an established sphere of influence, no adverse effects would result, and no mitigation would be necessary.

b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project (including, but not limited to the general, plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigation an environmental effect?

No Impact

Existing land uses on the project site include an existing dairy facility, a residence, and irrigated crops. Land use within the project area is regulated by San Joaquin County through the various plans and ordinances adopted by the County. These adopted plans include the San Joaquin County General Plan and the zoning ordinance (called the Development Title in San Joaquin County). The San Joaquin County General Plan

designates the project site and the surrounding areas as General Agriculture. The proposed dairy expansion would be consistent with this land use designation. The project site is within the San Joaquin County AG-40 (General Agriculture – 40 acre minimum) zone district. It is the intent of the AG-40 zone to preserve agricultural lands for the continuation of commercial agriculture enterprises. Surrounding properties are also designated AG-40. In San Joaquin County, an existing dairy may be expanded provided the expansion involves less than 25 percent increase in the floor area of the milk house (San Joaquin County Code 9-605.6(k)(1)), and a Site Approval is required for expansions of a dairy beyond this amount. The proposed Woods Dairy Expansion does not include a 25 percent increase in the floor area of the milk house, and no Site Approval from the County would be required. Thus, because the project complies with the requirements of the San Joaquin County Zoning Ordinance, no significant impact would occur, the project would not be incompatible with any existing uses in the project vicinity, and no mitigation would be necessary.

c) *Conflict with an applicable habitat conservation plan or natural community conservation plan?*

Less than Significant Impact

The SJMSCP was developed by SJCOG, and adopted by the County and the County's cities in 2000 to offset biological impacts created by projects within San Joaquin County. The SJMSCP covers all of San Joaquin County except for federally owned land. The stated purpose of the SJMSCP is to provide a strategy for balancing a need to conserve open space with a need to convert open space to other uses, while protecting the area's agricultural economy, preserving landowner rights, accommodating a growing population, and providing for long-term management of special status species (San Joaquin County 2009). As discussed in Section IV, *Biological Resources*, the proposed project would be consistent with the Plan following implementation of mitigation. Therefore, no conflict with the SJMSCP would occur, and a less-than-significant impact would result.

XI. Mineral Resources Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓
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?				✓

XI. MINERAL RESOURCES

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?*

No Impact

The Surface Mining and Reclamation Act of 1975 (SMARA) mandated the initiation by the State Geologist of mineral land classification in order to help identify and protect mineral resources in areas within the State subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB) to designate lands containing mineral deposits of regional or statewide significance. Construction aggregate was selected by the SMBG to be the initial commodity target for classification because of its importance to society, its unique economic characteristics, and the imminent threat that continuing urbanization poses to that resource.

Key minerals commercially excavated in San Joaquin County are construction aggregates, primarily sand and gravel. To a large extent, aggregate areas are located in flood plains of rivers and streams. The principal areas of production are located in the southwest and northeast areas of San Joaquin County. There is an area designated as MRZ-3 by the California Division of Mines and Geology located east of the project site, which denotes areas potentially containing mineral deposits (San Joaquin County 2009), the significance of which cannot be evaluated from available data. Since there are no known mineral resources at the project site, implementation of the proposed Woods Dairy Expansion project would not interfere with the extraction of any known, active mineral resource, and no impact would result.

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?

No Impact

As discussed above, the Project site is not located in an area that contains aggregate production. As such, the Project will not result in the loss of important mineral resource recovery site. Therefore, the Project would have no impact.

XII. Noise Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			✓	
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?			✓	
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 expose people residing or working in the Project area to excessive noise levels?				✓
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?			✓	

XII. NOISE

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less Than Significant Impact

The San Joaquin County Code indicates that agricultural activities on agriculturally zoned land are exempt from County noise exposure standards (San Joaquin County Code 9-1025.9(c)(5)). The Union Pacific railroad runs north-northwest and adjacent to the project cropland, and State Route 12 is located approximately 0.5-mile north of the project site. There are no other major noise sources located in the project vicinity. Because agricultural activities would be exempt from noise standards, this would be a less than-significant impact.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact

The Project may result in a slight increase in groundborne vibration or groundborne noise levels during construction and operations. Groundborne vibration and noise levels associated with these activities are expected to be minor. Construction will be temporary. No feature of the project would cause noticeable levels of ground borne vibration or noise. Because the project would not expose adjacent residents or other sensitive receptors to excessive levels of groundborne noise or vibration, no adverse effect would result, and no mitigation would be necessary.

c) *A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?*

Less Than Significant Impact

Existing operations include dairy operations, crop cultivation, and surrounding agricultural operations. With project implementation, there would be little increase in existing noise levels in the project vicinity. Most noise events are associated with tractor and equipment operation. No new large machinery or other noise-producing activities would occur; no activities different than those currently occurring, or closer to nearby residences, are proposed. Therefore, no adverse effects from increased noise levels would occur, and no mitigation would be necessary.

d) *A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?*

Less Than Significant Impact

A temporary increase in ambient noise levels may be generated as a result of construction of the project. The San Joaquin County General Plan acknowledges there may be temporary, elevated noise levels during construction and provides an exemption from noise exposure standards for construction activities between the hours of 6 a.m. and 9 p.m. (San Joaquin County Code 9-1025.9(c)(3)) Because construction activities would be temporary and are exempt from noise standards, construction noise would be considered to be a less-than-significant impact.

e) *For a Project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?*

Less Than Significant Impact

The Kingdon Executive Airport is located approximately 1-mile south/southwest of the project site, and the Lodi Airpark is located approximately 2.1 miles southeast of the project site. The project site is located within the Airport Influence Area for both of these airports. Agricultural activities, including a dairy, are allowed uses within Airport Influence Areas (San Joaquin County ALUC 2009). Although there would be a minor increase in the number of workers on site as a result of the project, the proposed expansion would not conflict with the policies of the San Joaquin County Airport Land Use Compatibility Plan, and potential impacts from safety hazards would be less than significant. Therefore, the project would not expose employees or residents in the area to excessive noise levels from airport operations as considered by the Plan, and the proposed project impacts would be less than significant.

f) *For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?*

Less than Significant Impact

There is a private air strip/haul road located on the project site. No feature of the proposed project would increase operations at this airstrip or result in the use of the strip by aircraft different from those currently using the airport. Private airstrips in this area are generally used for agricultural purposes and would not result in excessive noise levels for employees of the proposed project or neighboring residences, and a less-than-significant impact would result with project implementation.

XIII. Population / Housing Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial 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)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

XIII. POPULATION AND HOUSING

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure)?*

No Impact

The Project does not include the development of homes, nor does it include the extension of roads or infrastructure. The dairy is a family operation with a total of three (3) workers. With implementation of the proposed project, the family operation would employ five (5) new workers; given the availability of potential employees in San Joaquin County, these employees are anticipated to be hired from the available labor pool. Therefore, the Project would not induce substantial population growth in the area, and no impact would occur.

b) *Displace a substantial number of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact

There is one residence located on site associated with the existing dairy operations. The proposed project would not include any additional housing. No direct loss or degradation of existing housing units would occur with project implementation. Since the existing residences would be unaffected by the proposed project, implementation of the project

would not displace any existing housing units, necessitating the construction of replacement housing elsewhere. Therefore, the Project would have no impact.

c) *Displace substantial number of people necessitating the construction of replacement housing elsewhere?*

No Impact

The existing residence is an owner residence, and there are no workers living on-site. Therefore, the Project would not displace a substantial number of people, necessitating the construction of replacement housing elsewhere, and no impact would occur.

XIV. Public Services Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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 for any of the public services:				✓
i) Fire protection?				✓
ii) Police protection?				✓
iii) Schools?				✓
iv) Parks?				✓
v) Other public facilities?				✓

XIV. PUBLIC SERVICES

a) *Result in substantial adverse physical impacts associated with the provisions 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 for any of the public services:*

i. Fire protection?

No Impact

Implementation of the Woods Dairy Expansion project would include expansion of a developed use in an area without developed fire safety facilities. In response to this common condition in agricultural areas of the County, the San Joaquin County Fire Warden generally requires capacity for adequate fire flow to all areas where buildings are constructed (San Joaquin County 2009). There are on-site irrigation wells that can be used for fire flow at existing facilities. Compliance with this standard as set forth by the Fire Warden would reduce fire risk and hazard to levels found acceptable by the County. No additional increase in fire protection demand is anticipated. Therefore, the Project would have no impact on fire protection.

ii. Police protection?

No Impact

The San Joaquin County Sherriff's Office provides law enforcement in the County. The project site is located in an area which is staffed around the clock by Deputy Sheriffs (San Joaquin County 2009). Existing police services are adequate to cover the proposed dairy expansion. No new or altered police protection facility would be necessary, and no additional increase in police protection demand is anticipated. Therefore, the Project would have no impact on police protection.

iii. Schools?

No Impact

The Project would not increase population in the surrounding areas necessitating the need for new schools. Therefore, the Project would have no impact on schools.

iv. Parks?

No Impact

The Project would not increase population in the surrounding areas necessitating the need for new parks. Therefore, the Project would have no impact on parks.

v. Other public facilities?

No Impact

The Project would not increase population in the surrounding areas necessitating the need for other public facilities. Therefore, the Project would have no impact.

XV. Recreation Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

XV. RECREATION

a) *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

No Impact

The Project area does not currently contain any recreational facilities. Construction and operation of the Project would be expected to primarily draw from the greater regional employment pool and as such, would not be expected not increase population of the surrounding area and therefore no increase the use of recreational facilities. Therefore, the Project would have no impact.

b) *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

No Impact

Construction and operation of the Project would not increase population of the surrounding area. Therefore, the Project would not require the construction or expansion of recreational facilities, and no impact would occur.

XVI. Transportation / Traffic Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation systems, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				✓
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			✓	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?				✓
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				✓

XVI. TRANSPORTATION / TRAFFIC

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant*

components of the circulation systems, including but not limited to intersections streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?

No Impact

Following building permit application with the County, appropriate traffic impact fees would be assessed for the proposed dairy expansion to minimize roadway impacts. There are no anticipated pedestrian, bicycles, or mass transit circulation from the Project and no new public roadways would be built and no existing roadways would be altered during Project activities. Therefore, the Project would have no impact on applicable traffic and circulation plans, ordinances or policies.

b) *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Less Than Significant Impact

Currently, the site is served by heavy trucks (milk tankers, commodity deliveries), and other vehicles. A private driveway off of DeVries Road provides local access to the Woods Dairy Expansion project site. State Highway 12 and Interstate 5 provide regional access to the dairy (see Figures 2 and 3). DeVries Road and private internal roads would continue to be used for the agricultural operations and movement of harvested crops from the fields to the dairy. Because of the existing low levels of traffic, and because minimal new trips would be generated by the proposed project expansion (see Table 3), there would be no reduction of the existing Level of Service on DeVries Road. Therefore, there would be a less than significant impact.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

No Impact

There is a private air strip/haul road located on the project site. No feature of the proposed project would increase operations at this airstrip or result in the use of the strip by aircraft different from those currently using the airport. There would be no air traffic impacts, and no mitigation would be required.

d) *Substantially increase hazards due to design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

No Impact

The Project would not include the construction of new public roads or alterations to existing public roads or intersections. Construction of the proposed dairy facilities would

allow for the access of emergency vehicles and would not increase roadway hazards from the design of project roads. In addition, the County Fire Department maintains standards for access road to provide for adequate emergency access, and may require minor roadway improvements. There would be no impacts from hazards due to design features.

e) *Result in an inadequate emergency access?*

No Impact

No modifications to any existing roadway are proposed during project construction or operation, and no impacts to emergency access would result. Therefore, the Project would have no impact on emergency access.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

No Impact

No alternative modes (bicycle, pedestrian, transit) of transportation facilities or bike trails are located in the project vicinity; therefore, the project would have no effect on such facilities. No policies with respect to alternative modes of transportation adopted as part of the San Joaquin County General Plan apply to the proposed facility.

XVII. Tribal Cultural Resources 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:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			✓	
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.			✓	

XVII. TRIBAL CULTURAL RESOURCES

a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).*

Less Than Significant Impact

A records search by the Central California Information Center (CCIC), California Historical Resources Information Center was conducted for the project area. The records search concluded that no historic resources have been reported to the CCIC. Based on the California Register of Historical Resources list available on their website, no historical resources were listed on the Woods Dairy project site. Therefore, the Project would have a less than significant impact. In addition, Assembly Bill (AB) 52 requires lead agencies to consider the effects of projects on tribal cultural resources, and to conduct consultation with federally and non-federally recognized Native

American Tribes early in the environmental planning process. Written notification and early consultation request for the Project was provided to the Native American Heritage Commission who indicated that there were no sacred lands sites identified as areas of concern with implementation of the Project. Furthermore, the District sent consultation notices to two tribes which requested consultation pursuant to AB 52 with San Joaquin Valley Air Pollution Control District for all projects located within the Central Valley. The District sent consultation notices to Dumna Wo Wah Tribal Government and the Santa Rosa Rancheria Tachi Tribe on November 15, 2017 for a 30-day consultation period. The District did not receive a request for consultation during that period. As such, no additional actions are required.

b) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is 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.*

Less Than Significant Impact

Written notification and early consultation request for the Project was provided to the Native American Heritage Commission who indicated that there were no sacred lands sites identified as areas of concern with implementation of the Project. Therefore, the Project would have a less than significant impact. In addition, as mentioned above, no tribes requested Project consultation pursuant to AB 52 with San Joaquin Valley Air Pollution Control District.

XVIII. Utilities / Service Systems Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e) Result in a determination by the wastewater treatment provider that 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?			✓	
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

XVIII. UTILITIES / SERVICE SYSTEMS

Because confined animal facilities, including dairies, would not require additional public facilities beyond those typically provided in agricultural areas, the operations of facilities to serve the expanded herd would not be expected to increase the demand for public facilities beyond the levels provided and planned for by public utilities.

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact

The Project includes a wastewater treatment system for dairy wastewater that is regulated by the CVRWQCB under the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies (Order R5-2013-0122). For a discussion of dairy wastewater disposal and compliance with CVRWQCB requirements, see Section IX, *Hydrology / Water Quality*. No new sewage disposal systems are included as a part of the proposed dairy expansion, nor would the proposed project require expanded wastewater treatment facilities. No impact would result with project implementation.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact

No new sewage disposal systems are included as a part of the proposed dairy expansion. Therefore, the project would not result in the construction of water or wastewater treatment facilities that would cause significant environmental effects, and no impact would occur.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less than Significant Impact

The project site receives minimal off-site storm run-on. All stormwater generated at the project site from existing and proposed areas with impermeable surfaces is, and would continue to be, collected and routed to the existing wastewater management system. All stormwater generated by the project would be collected and maintained within the project proponent's larger property. Therefore, no adverse effects to storm drainage are expected, and no needs for, or modifications to, storm drainage systems in the project vicinity are necessary. For more information regarding storm drainage, see Section IX, *Hydrology / Water Quality*.

d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact

Water used by the project is currently provided by groundwater from on-site irrigation wells. The proposed project includes the continued use of existing irrigation wells. Implementation of the project would not require the development of any new or expanded surface water supply facilities on the project site or elsewhere. No significant impact would occur, and no additional mitigation would be necessary. For additional information regarding the project's water use and supplies, see Section IX, *Hydrology / Water Quality*.

e) Result in a determination by the wastewater treatment provider that 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?

Less than Significant Impact

The Project includes a wastewater treatment system for dairy wastewater that is regulated by the CVRWQCB under the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies. For a discussion of dairy wastewater disposal, see Section IX, *Hydrology / Water Quality*. There are no new residences proposed with the dairy expansion; therefore no new or expanded sanitary disposal system for domestic wastewater would be required with project implementation, and no impact would occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less Than Significant Impact

Implementation of the proposed project would not require extra stops for solid waste removal since business uses on the site would be unchanged. (Disposal of manure is outside of the normal waste stream, and is provided by the project proponent. Since the manure is used to fertilize agricultural fields, there would be no effect on landfill capacity.) 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. Therefore, the Project would have a less than significant impact.

g) Comply with federal, state, and local statues and regulations related to solid wastes?

Less Than Significant Impact

Solid wastes generated from the site would include shop and employee waste streams and manure from the poultry operations. These waste streams would be stored and

handled in accordance with all federal or state regulation for solid wastes. For a discussion of dairy wastewater disposal, see Section IX, *Hydrology / Water Quality*. Therefore, the Project would have less than significant impact.

XIX. Mandatory Findings of Significance Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to 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, 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?		✓		
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)?		✓		
c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

a) *Does the Project have the potential to 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, 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?*

Less Than Significant with Mitigation Incorporated

With the incorporation of required permit conditions and the incorporation of mitigation measures as outlined in the Mitigated Negative Declaration, the Project would have a less than significant impact with mitigation on the environment and special status species.

Mitigation Measures: See Mitigation Measures BIO-1, CUL-1 through CUL-4, GEO-1, HYD-2, and HYD-3.

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)?*

Less Than Significant with Mitigation Incorporated

CEQA Guidelines state that a Lead Agency shall consider whether the cumulative impact of a Project is significant and whether the effects of the project are cumulatively considerable (CCR §15065). The assessment of the significance of the cumulative effects of the Project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature and location of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The Project is not a part of any larger planned developments. Therefore, the Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., an increase in population that could lead to an increase need to housing, increase in traffic, air pollutants, etc.). The Project would have a less than significant impact with mitigation.

Mitigation Measures: See Mitigation Measures BIO-1, CUL-1 through CUL-4, GEO-1, HYD-2, and HYD-3.

c) *Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less Than Significant with Mitigation Incorporated

The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have a substantial impact on human beings, either directly or indirectly. Project design elements and mitigation measures have been incorporated into the Project to reduce all potentially significant impacts to less than significant.

Mitigation Measures: See Mitigation Measures BIO-1, CUL-1 through CUL-4, GEO-1, HYD-2, and HYD-3.

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I. APPENDICES

Appendix A. Acronyms and Abbreviations
Appendix B. Air Quality Technical Analyses
Appendix C. 2017 Biological Resources Records Search. 2011 Reconnaissance Biological Survey for the Woods Dairy Expansion. San Joaquin County, California
Appendix D. 2011 Cultural Resources Records Search
Appendix E. Greenhouse Gas Emissions Modeling
Appendix F. Woods Dairy Water Quality Data

Appendix A. Acronyms and Abbreviations

AAQA	Ambient Air Quality Analysis
AAQS	Ambient Air Quality Standards
AB 2588	Assembly Bill 2588 – Air Toxics "Hot Spots" Information and Assessment Act
AB 32	Assembly Bill 32 – California Global Warming Solutions Act of 2006
ATC	Authority to Construct
BACT	Best Available Control Technology
BAU	Business as Usual
BMP	Best Management Practice
BPS	Best Performance Standards
Cal/OSHA	California Department of Industrial Relations - Division of Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH_4	Methane
CMP	Conservation Management Practices Plan
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COG	Council of Governments
CVRWQCB	Central Valley Regional Water Quality Control Board
dB	Decibel
District	San Joaquin Valley Unified Air Pollution Control District
DTSC	California Department of Toxic Substances Control
ERG	Environmental Review Guidelines
FED	Functionally Equivalent Document
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse Gas
HAP	Hazardous Air Pollutant
HRA	Health Risk Assessment
LOS	Level of Service
NAHC	Native American Heritage Commission
N_2O	Nitrous Oxide

NMP	Nutrient Management Plan
NO_x	Oxides of Nitrogen
NRA	California Natural Resources Agency
NRCS	Natural Resources Conservation Service
NSR	New Source Review
OSHA	Occupational Safety and Health Administration
PM_{10}	Particulate Matter 10 microns in diameter
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter
ROG	Reactive Organic Gases
ROWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SJKF	San Joaquin Kit Fox
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVAB	San Joaquin Valley Air Basin
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SO_x	Sulfur Oxides
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminant
TPY	Tons Per Year
US EPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
VOC	Volatile Organic Compound
WDR	Waste Discharge Requirements
WMP	Waste Management Plan

Appendix B. Air Quality Technical Analyses

Available Upon Request at District Office:

San Joaquin Valley Air Pollution Control District
Central Region
1990 E. Gettysburg Ave.
Fresno, CA 93726
(559) 230-6000

Appendix C. 2017 Biological Resources Records Search. 2011 Reconnaissance Biological Survey for the Woods Dairy Expansion. San Joaquin County, California

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