

Community and Economic Development Planning Division

Jamie Bax Deputy Director

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PLANNING COMMISSION DATE:

November 10, 2020

AGENDA ITEM: #3

CUP	#2020-010	To amend CUP #98-40 to allow the construction of a covered lagoon anaerobic digester at existing dairy and to truck biogas to injection facility
APN	#023-230-005	Applicant: RNG Moovers, LLC Owner: Costa View Dairy
CEQA	MND #2020-13	Mitigated Negative Declaration

REQUEST:

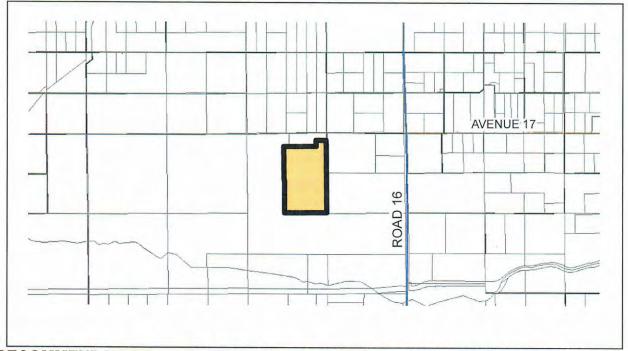
The applicant is requesting to amend CUP #98-40 to construct a dairy digester and then truck resultant biogas to an injector site on an existing dairy site.

LOCATION:

The subject property is located on the west side of Road 15, approximately 548 feet south of its intersection with Avenue 17 (16800 Road 15), Madera.

ENVIRONMENTAL ASSESSMENT:

A Mitigated Negative Declaration (MND #2020-13) (Exhibit L) has been prepared and is subject to approval by the Planning Commission.



RECOMMENDATION: Staff recommends approval of CUP #2020-010, Findings of Fact, Mitigated Negative Declaration #2020-13 and associated Mitigation Monitoring Program.

November 10, 2020

GENERAL PLAN DESIGNATION (Exhibit A):

SITE: AE (Agricultural Exclusive) Designation

SURROUNDING: AE (Agricultural Exclusive) Designation; OS (Open Space)

Designation; A (Agricultural) Designation

ZONING (Exhibit B):

SITE: ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District

SURROUNDING: ARE-20 (Agricultural, Rural, Exclusive - 20 Acre) District;

ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District; OS

(Open Space) District

LAND USE:

SITE: Orchard

SURROUNDING: Agricultural

SIZE OF PROPERTY: 284.66

ACCESS (Exhibit A): Access to the site is via Road 15

BACKGROUND AND PRIOR ACTIONS:

On February 2, 1999, Conditional Use Permit (CUP) #98-40 was heard by the Planning Commission to recognize an existing dairy facility. The original Assessor's Parcel Number (APN) included 023-230-001, which has subsequently gone through a couple lot line adjustments and is now 023-230-005 which is where the dairy facility resides.

PROJECT DESCRIPTION:

The proposed project would construct a dairy digester over an existing lagoon. The produced biogas will be upgraded to meet natural gas regulations for the local utility company and will then be trucked to a separate injection site located at the Soares Dairy (under CUP #2020-009).

ORDINANCES/POLICIES:

<u>Section 18.58</u> of the Madera County Zoning Ordinance outlines the uses and regulations of the ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District.

<u>Section 18.92</u> of the Madera County Zoning Ordinance outlines the procedures for obtaining Conditional Use Permits.

<u>Policy 5.A.1</u> of the Madera County General Plan states the County shall maintain agriculturally designated areas for agricultural uses.

<u>Policy 5.A.16</u> of the Madera County General Plan supports economic development of agriculturally related activities within the County.

<u>Madera County Dairy Standards</u> provides guidance to new and existing dairies to reduce environmental impacts.

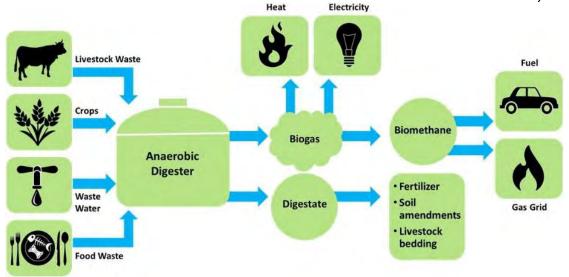
ANALYSIS:

The proposed project would construct the infrastructure required to allow the generation of biogas (a byproduct of manure decomposition) and then preparation and transportation to an injection site at the Soares Dairy (facility covered under CUP #2020-009). The resultant biogas will be sold to local utility for energy production.

Dairy digesters have been an increasing trend over the last few years for dairy facilities to reduce odor emissions and to generate on-site electricity from a renewable resource.

The anaerobic digester will capture methane from decomposing manure sourced from the dairy facility and then converted to electricity which will be sold to an off-site electrical provider. Anaerobic digestion is a process by which microorganisms break down biodegradable material in the absence of oxygen. The process produces a biogas consisting of methane, carbon dioxide and traces of other gases. The process is widely used as a source of renewable energy.

Biogas typically refers to a gas produced by the biological breakdown of organic matter in the absence of oxygen. Organic waste such as dead plant and animal material, animal feces, and kitchen waste can be converted to a gaseous fuel called biogas. It comprises primarily methane and carbon dioxide and may have small amounts of hydrogen sulfide and moisture. The process is a three-step procedure. First is the decomposition of plant or animal matter, this step breaks down the organic material to usable sized molecules such as sugar. The second step is the conversion of decomposed matter to organic acids. Lastly, those acids are converted to methane gas.



In 2003, the US consumed 147 trillion BTU (British Thermal Units – a unit of measure of the amount of energy required to heat one pound of water by one degree Fahrenheit) of energy from landfill gas, which equated to 0.6% of the total US natural gas consumption. When biogas is used, many advantages arise. As an example, in the US, utilization of biogas could generate enough electricity to meet up to three percent of the electrical expenditures.

The U.S. Energy Information Administration estimates that in 2018 about 270 billion cubic feet of landfill gas was collected at about 352 US landfills and burned to generate about 11 billion kilowatthours (kWh) of electricity, or about 0.3% of total US utility-scale electricity generation in 2018. The same agency estimates that also in 2018, about 29 large dairies and livestock operations in the United States produced a total of about 266 million kilowatthours (kWh) (or 0.3 billion kilowatthours (kWh)) of electricity from biogas.

As an example of this type of system, a hog farm in Tulare, hog manure is slurried and sent to a Hypalon-covered lagoon for biogas generation. The collected biogas fuels a 70-kilowatt engine-generator and a 100-kilowatt engine-generator. The electricity generated on the farm is able to meet monthly electric and heat energy demand.

The area surrounding the project is zoned ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District and has a general plan designation of AE (Agricultural Exclusive). The ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District allows for agricultural uses and single-family residences by right.

Existing dairy water will be used. Roughly 50 gallons of water per day will be used in the digester equipment. Dairy water is characterized as that used as a part of the flushing of stalls and related facilities onsite. What drainage there will be, will be utilized by the irrigation pond.

The general plan designation of Agricultural Exclusive (AE) allows for limited agricultural support service uses (e.g. barns, animal feed facilities, silos, stables, fruit stands and feed stores), agriculturally oriented services (e.g. wineries, cotton gins), timber production, mineral extraction, airstrips, public and commercial refuse disposal sites, recreational uses, public and quasi-public uses, and similar and compatible uses.

According to the Madera County Transportation Commission (MCTC), the traffic counts for the area range from 417 east bound and 375 west bound vehicles along Avenue 18 $\frac{1}{2}$ east of its' intersection with Road 9, which is the closest intersection to this project site for which there are traffic counts for 2016.

The project was circulated to internal departments as well as the County Sheriff, Agricultural Commissioner, California Regional Water Quality Control, State Water Resources Control Board, and the San Joaquin Valley Air Pollution Control Board. The Regional Water Quality Control commented on the project. The dairy will be required to adhere to the regulatory requirements of the RWQC for the operation (Exhibit J).

Pursuant to Public Resource Code (PRC) §21080.3.1(d), the project was also circulated to requesting tribes, including Table Mountain Rancheria, Dumna Wo Wah, Picayune Rancheria of Chuckchansi Tribe and the Chowchilla Yokuts Tribe. This circulation allows for local native tribes the opportunity to indicate if they wish to be further consulted on the project, request various different levels of archaeological studies on site prior to continuing with the processing of the project or starting of constructing, or decline further consultation. No tribe responded.

If this project is approved, the applicant will need to submit a check, made out to the County of Madera, in the amount of \$2,456.75 to cover the Notice of Determination (CEQA) filing at the Madera County Clerks' office. The amount covers the \$2,406.75 Department of Fish and Wildlife fee that took effect January 1, 2020 and the County Clerk \$50.00 filing fee. In lieu of the Fish and Wildlife fee, the applicant may choose to contact the Fresno office of the Department of Fish and Wildlife to apply for a fee waiver. The County Clerk Fee, Department of Fish and Wildlife Fee (or waiver if approved) is due within five days of approval of this permit at the Board of Supervisors.

FINDINGS OF FACT:

The following findings of fact must be made by the Planning Commission to make a finding of approval of the project. Should the Planning Commission vote to approve the project, Staff recommends that the Planning Commission concur with the following in light of the proposed conditions of approval.

- 1. The proposed project does not violate the spirit or intent of the zoning ordinance in that the property is ARE-40 (Agricultural, Rural, Exclusive 40-Acre District) which allows for agricultural activities by right. Dairy digesters are an incidental use (use commonly found on dairies), and therefore technically is a by-right activity. It's the additional activity (transporting the resultant biogas) that has triggered the need for the Conditional Use Permit.
- 2. The proposed project is not contrary to the public health, safety, or general welfare in that the facility will adhere to all conditions of approval and mitigations as approved as they relate to the operations. The project in and of itself is not contrary to public health, safety or welfare of the project. By its' nature, it has the potential of reducing odors and greenhouse gas emissions and allowing the production of a renewable energy source from an existing facility.
- 3. The proposed project is not hazardous, harmful, noxious, offensive, or a nuisance because of noise, dust, smoke, odor, glare, or similar, factors, in that the project must adhere to local and state health and building codes. No additional odors, noise, dust, smoke, or glare is being produced by the project. As designed, this project could reduce the amount of odors generated by the dairy.
- 4. The proposed project will not for any reason cause a substantial, adverse effect upon the property values and general desirability of the surrounding properties. The surrounding parcels are agriculturally zoned and used for agricultural purposes, including other dairy facilities. No significant impacts to surrounding property values is seen as a result of this project.

WILLIAMSON ACT:

The property is subject to the Williamson Act. However, the project is not a conflict to the provisions of the contract.

GENERAL PLAN CONSISTENCY:

The General Plan designation is currently AE (Agricultural Exclusive). The property is zoned ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District which allows for uses such as that proposed with a Conditional Use Permit. The proposed activity is consistent with these designations as submitted.

RECOMMENDATION:

The analysis provided in this report supports approval of CUP #2020-010, Findings of Fact, Mitigated Negative Declaration (MND #2020-13) and Mitigation Monitoring Plan.

CONDITIONS

See attached.

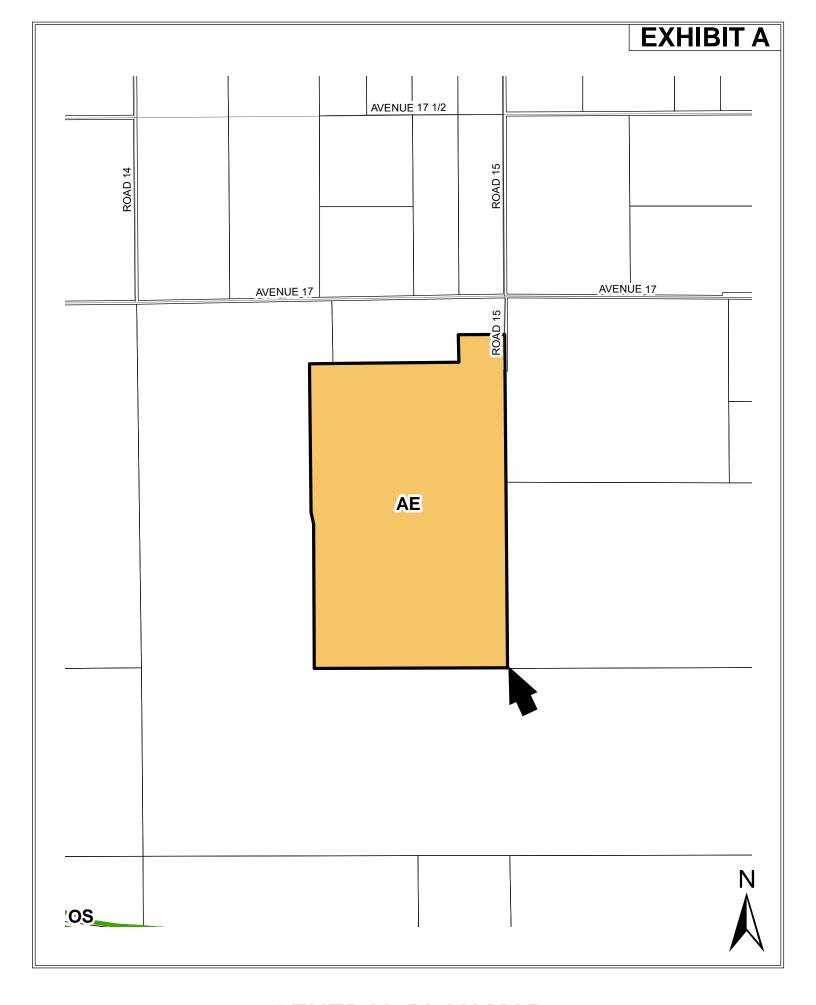
ATTACHMENTS:

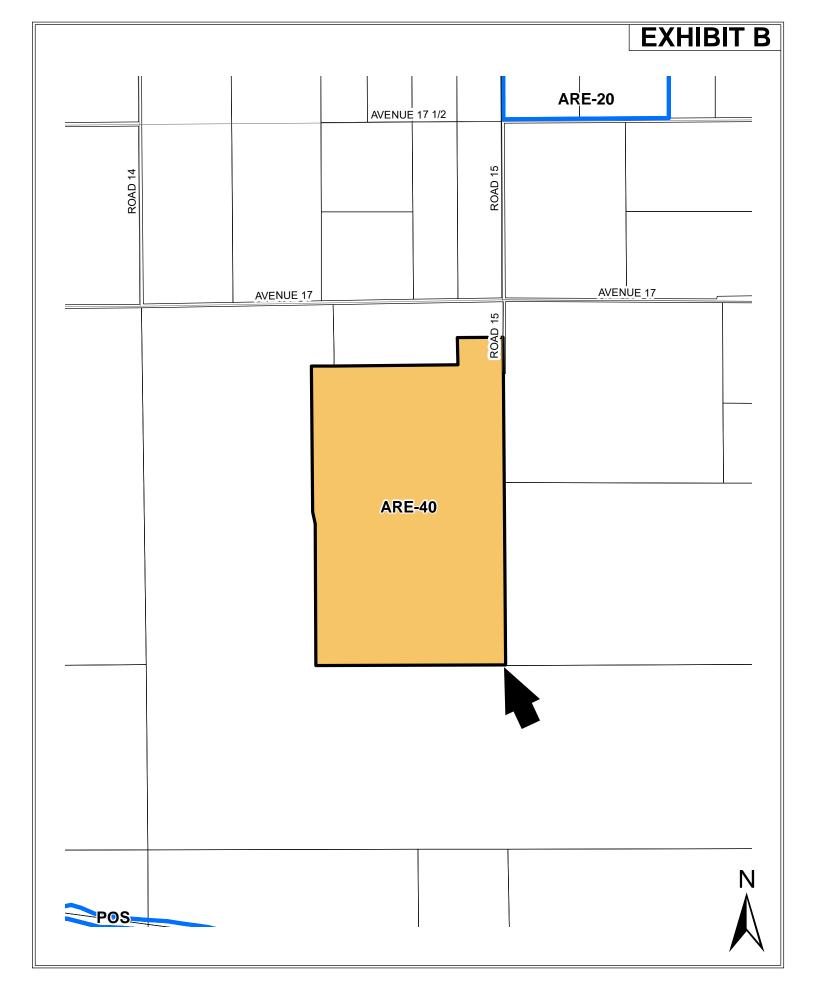
- 1. Exhibit A, General Plan Map
- 2. Exhibit B, Zoning Map
- 3. Exhibit C, Assessor's Map
- 4. Exhibit D, Site Plan
- 5. Exhibit D-1, Site Plan Close-up
- 6. Exhibit D-2, Equipment Buildings and Floor Plans
- 7. Exhibit D-3, Equipment Details
- 8. Exhibit D-3a, Equipment Details
- 9. Exhibit D-4, Process Flow Chart
- 10. Exhibit E, Aerial Map
- 11. Exhibit F, Topographical Map
- 12. Exhibit G, Operational Statement
- 13. Exhibit H, Environmental Health Department Comments
- 14. Exhibit I, Public Works, Engineering Comments
- 15. Exhibit J, Regional Water Quality Control Board Comments
- 16. Exhibit K, Initial Study
- 17. Exhibit L, Mitigated Negative Declaration

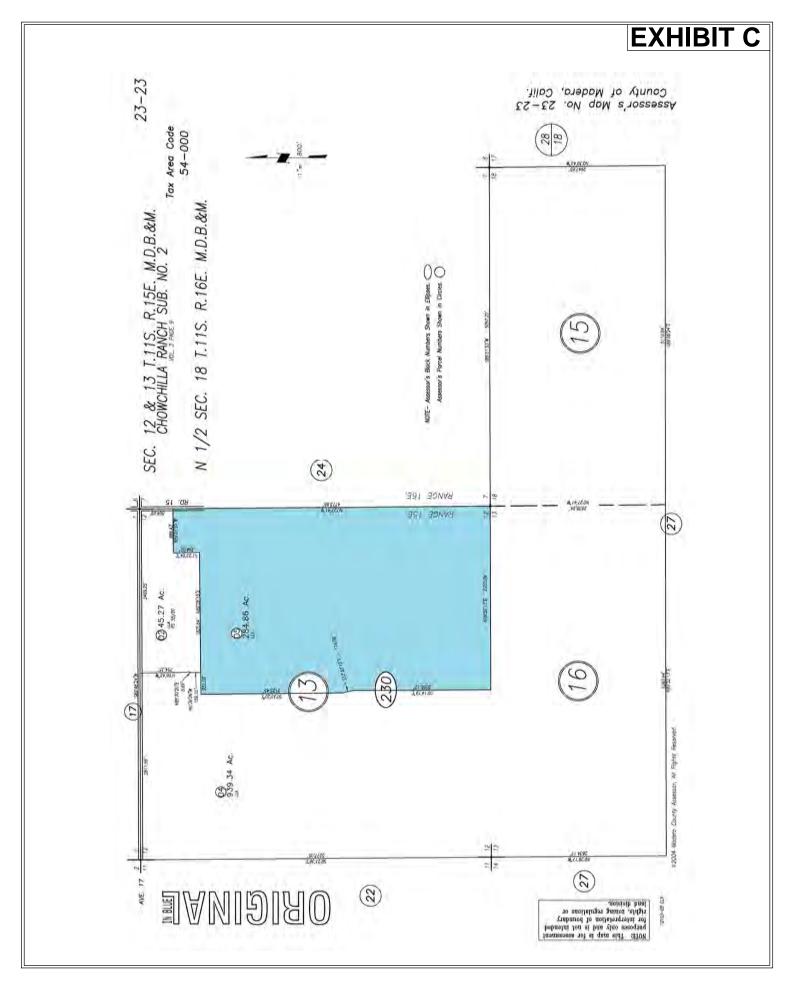
	CONDITIONS OF APPROVAL	VAL				
PROJECT NAME		CUP #2020-010 - RNG Moovers, (Costa View Dairy	RNG Moovers	(Costa View Da	airy	
PROJEC.	PROJECT LOCATION:	On the west side of Road 15, approximately 548 feet south of its	f Road 15, ap	proximately 548	feet south of its	
		intersection with Avenue 17 (16800 Road 15) Madera	venue 17 (168	00 Road 15) Ma	adera	
PROJECT	PROJECT DESCRIPTION:	to construct dairy digester and transport biogas to Soares Dairy	ligester and tra	ansport biogas t	to Soares Dairy	
		utility usage				
APPLICANT		RNG Moovers, LLC	O			
CONTAC	ERSON/TELEPHONE NUMBER:	559-318-6303				
ė.	Condition	Department/A	nitials	Verification of	Verification of Compliance	
Environn	Environmental Health	,				
	The facilities must comply with their Report of Waste Discharge (RWD) requirements under the Regional Water Quality Control Board (RWQCB).					
	The facility must comply with their San Joaquin Valley Air Pollution Control Board (SJVAPCD) permit.					
	The facility must comply with Cal Recycle permit requirements for an Anaerobic Digester.					
	Provide/Update Pest (vector) Management Plan. The Pest (vector) Management Plan must go into detail of how each known vector will be identified, tracked, eliminated or significantly reduced and how this program will be implemented. This Pest Management Plan must be provided for review and approval by this department prior to approving of this CUP to ensure that vector(s) are handled on site to effectively prevent them or at a minimum significantly reduce them from becoming an off-site nuisance.					
	Provide/Update Odor and Dust Management Plans. The Management Plans must go into detail in describing how odor and dust control will be managed and implemented. The Odor and Dust Management Plans must be provided for review and approval by this department prior to approval of this CUP to ensure that each known dairy nuisance(s) are handled on site to effectively prevent them from moving off-site creating a nuisance.					
	If your facility handles/store any hazardous materials on-site or generates hazardous waste you may be subject to permitting requirements though our department. As of January 2013 all Certified Unified Program Agency (CUPA) regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at www.cers.calepa.ca.gov.					

Q Z	and it is in an and	A)tuomtion00		Verification	Verification of Compliance
		gency	Initials	Date	Remarks
	The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s); Dust, Odor(s), Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best Management Practices (BMP) and as required by the County General Plan, County Ordinances and any other related State and/or Federal jurisdiction.				
Fire					
	None				
Planning				_	
	Facility to operate per submitted Operational Statement except where modified by conditions of approval and/or mitigation measures associated with this project.				
	All lighting associated with this project is to be hooded and directed down and away from neighboring parcels.				
	All areas of circulation related to this project are to be constructed and maintained in a dust free manner.				
	Any signage associated with this project shall be approved by the Planning Department prior to placement on the project site.				
	Any noise generated by this project as a part of normal operations shall conform to County Noise Ordinance.				
	Facility to be maintained in accordance with County Dairy Standards.				
:					
Public W	Public Works - Engineering			-	
	At the time of applying for the building permits, the applicant/contractor is required to submit a grading permit to the Public Works Department for review and approval. Grading permit must be obtained prior to performing any grading on site.				
	This parcel is located within Special Flood Hazard Area Zone A. This approximate A Zone has been mapped by FEMA as a flood zone without BFE's provided. For approximate A Zones with development of 5 Acres or 50 lots, whichever is fewer, a detailed study is required to determine Base Flood Elevations for the 100 year flood plain. The minimum NFIP(National Flood Insurance Program) standard for development in an approximate A zones can be found in Section 60.3(b)(3) of the NFIP regulations.				

No.	Condition	Department/A		Verification	Verification of Compliance
		gency	Initials	Date	Remarks
Public Wo	Public Works - Roads				
	none				
Regional	Regional Water Quality Control Board				
	Adhere to all conditions from the RWQCB				

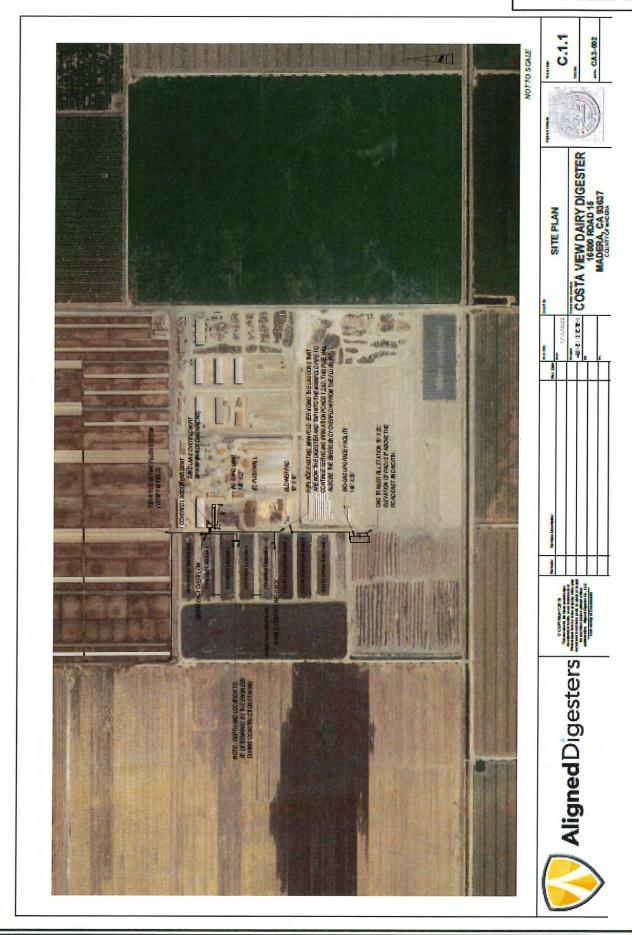






ASSESSOR'S MAP

EXHIBIT D



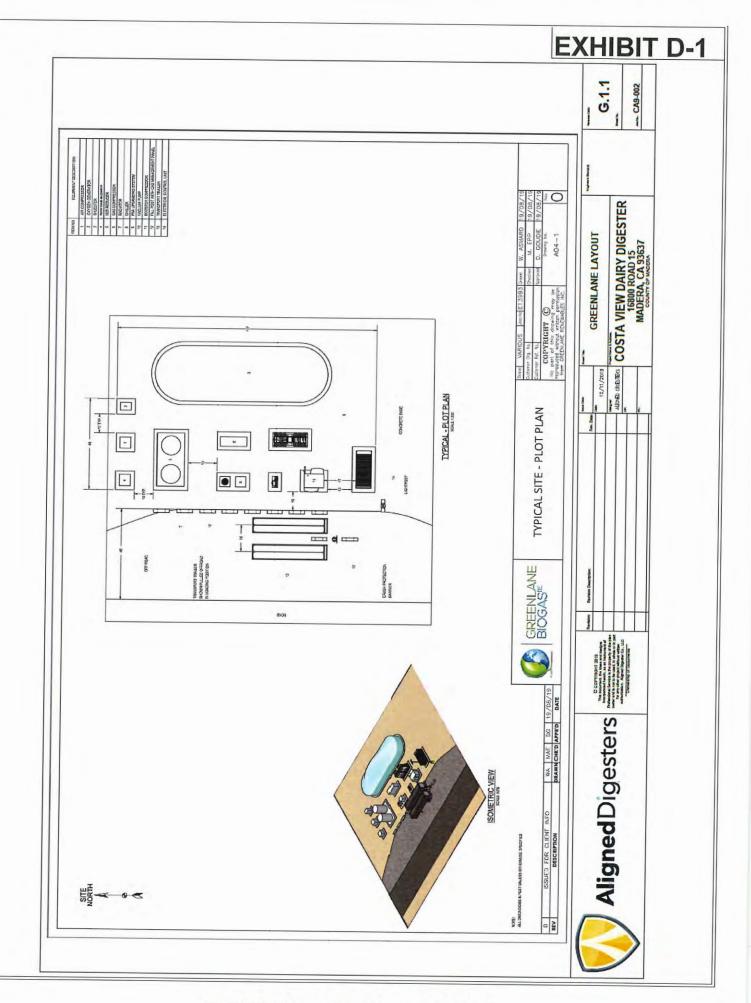
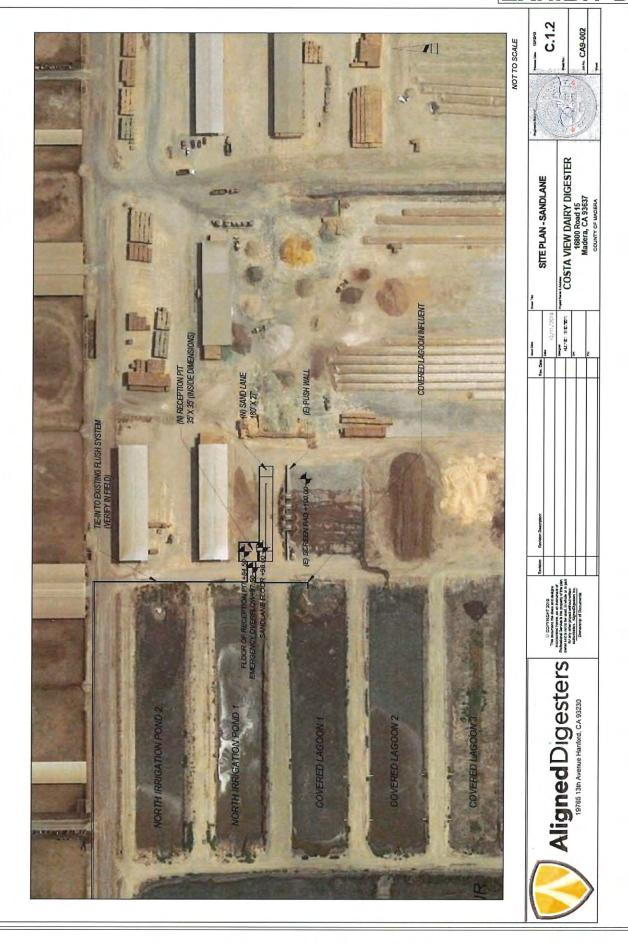
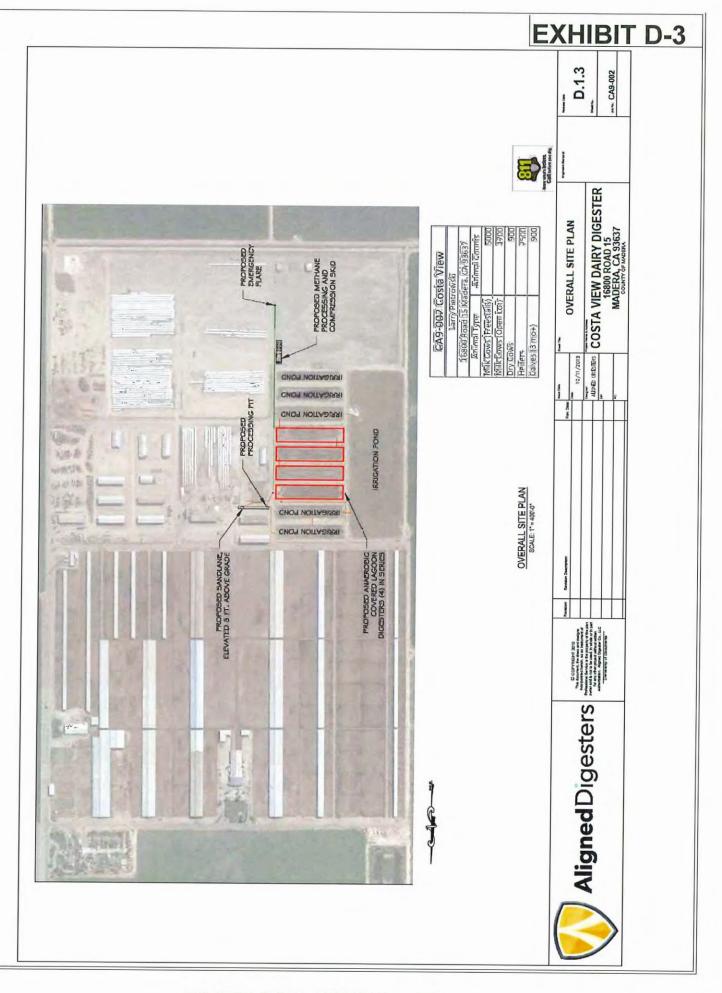
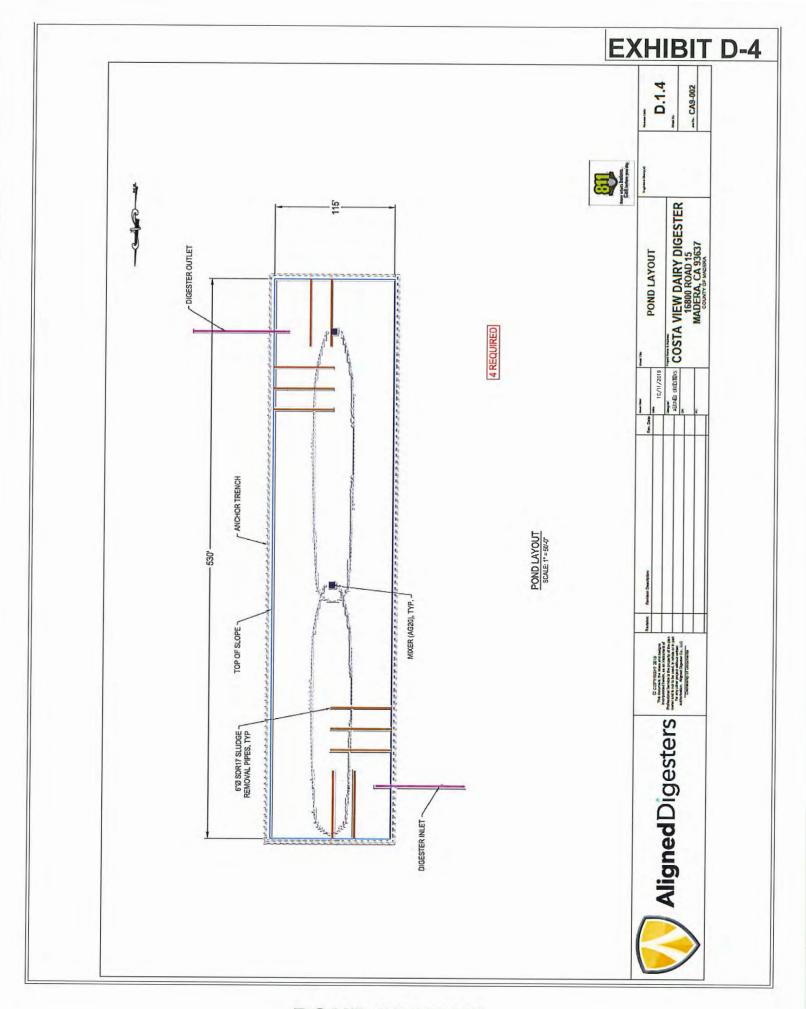


EXHIBIT D-2

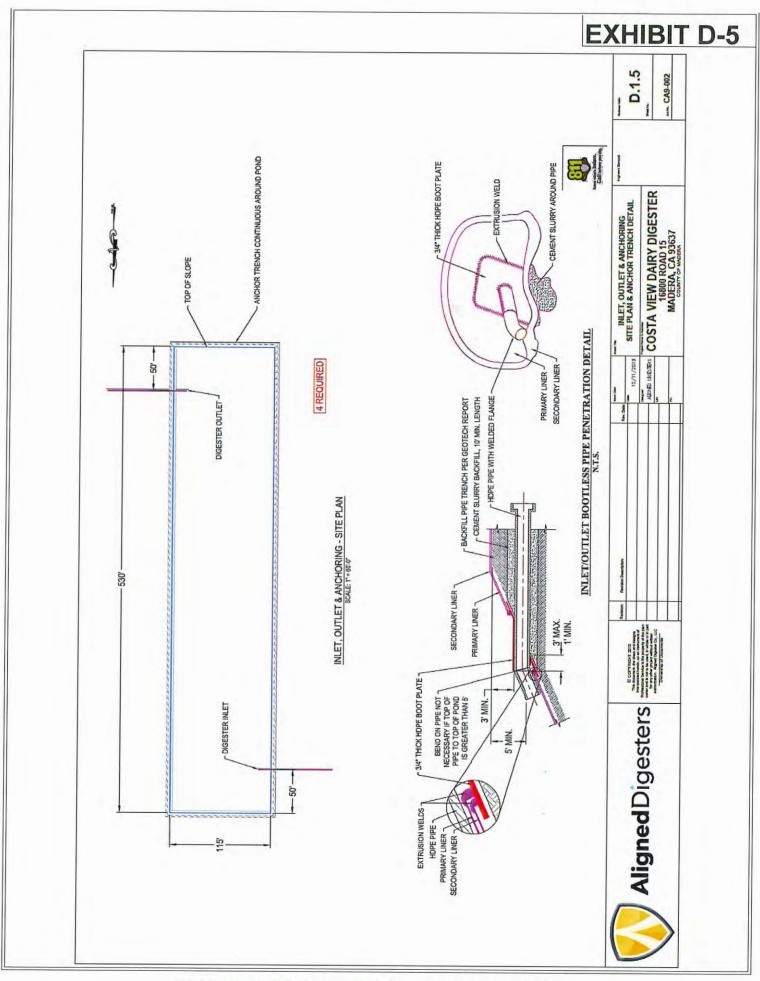


SITE PLAN - SANDLANE

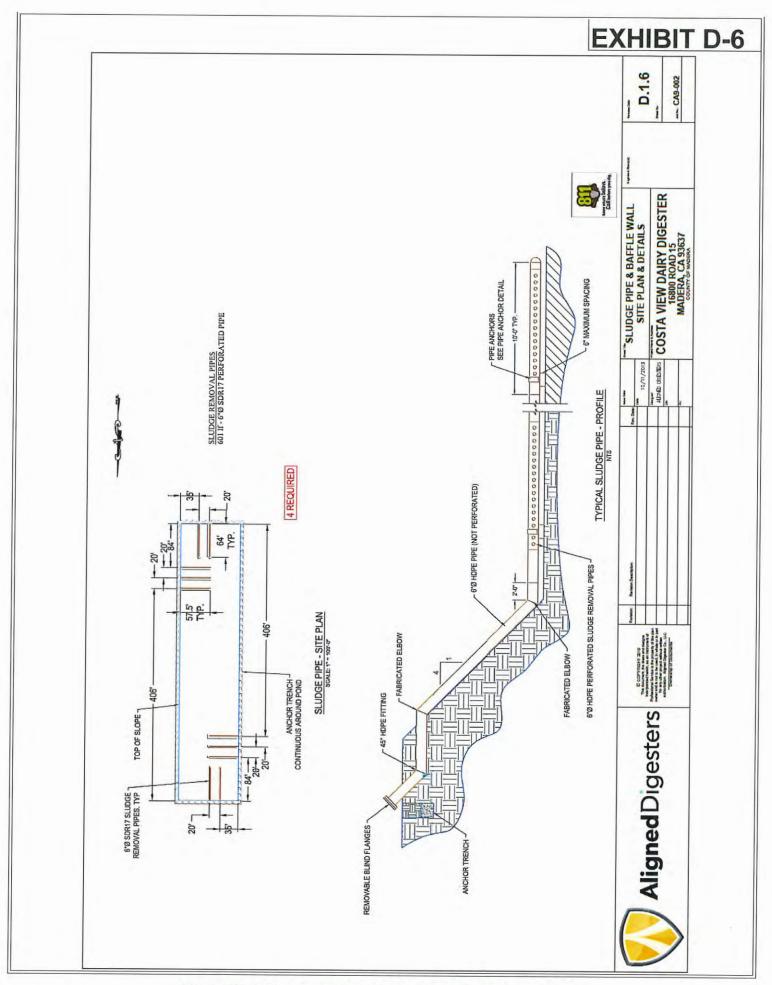




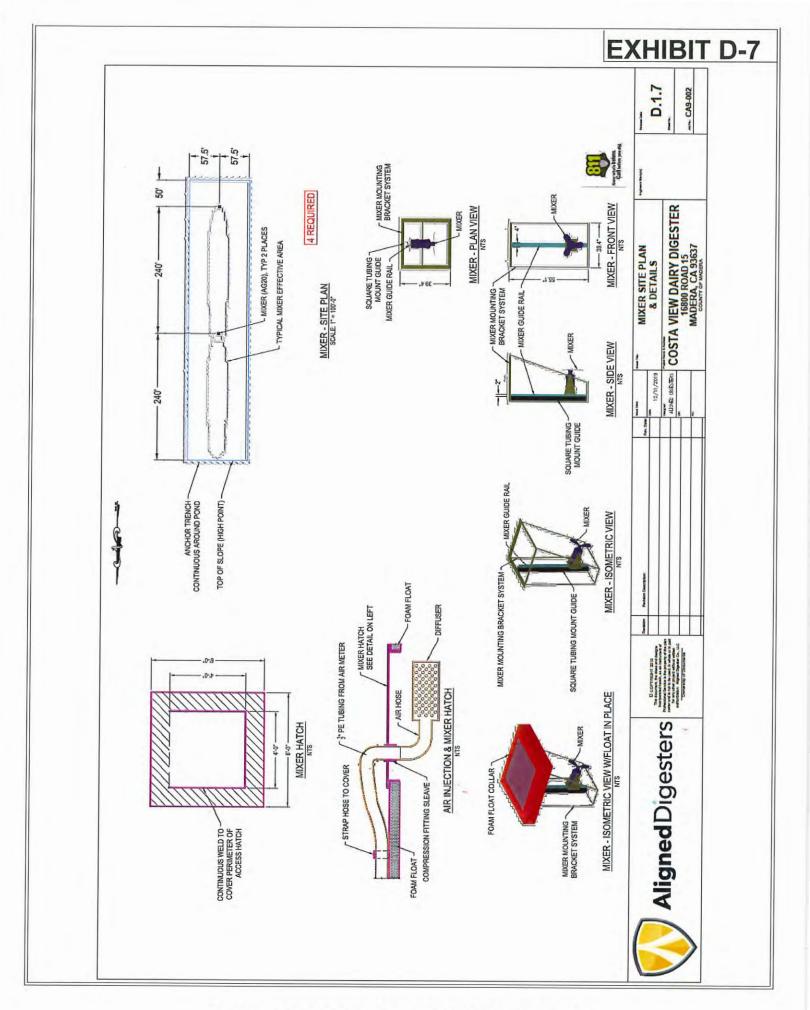
POND LAYOUT



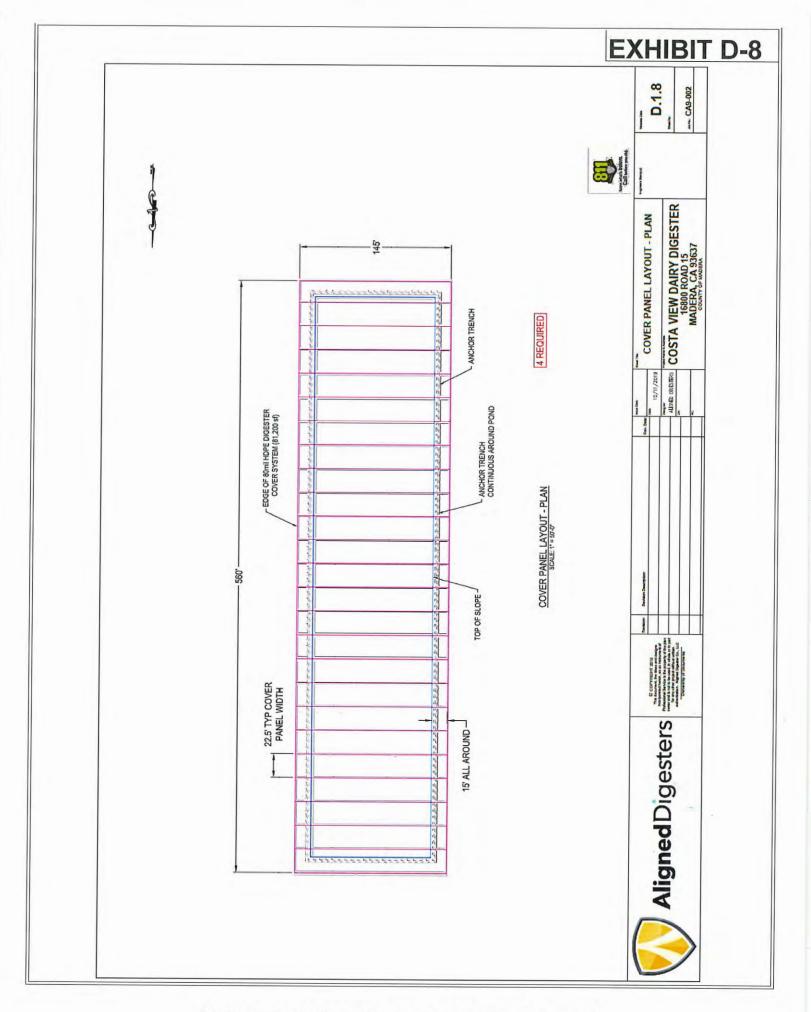
INLET, OUTLET & ANCHORING SITE PLAN & ANCHOR TRENCH DETAIL



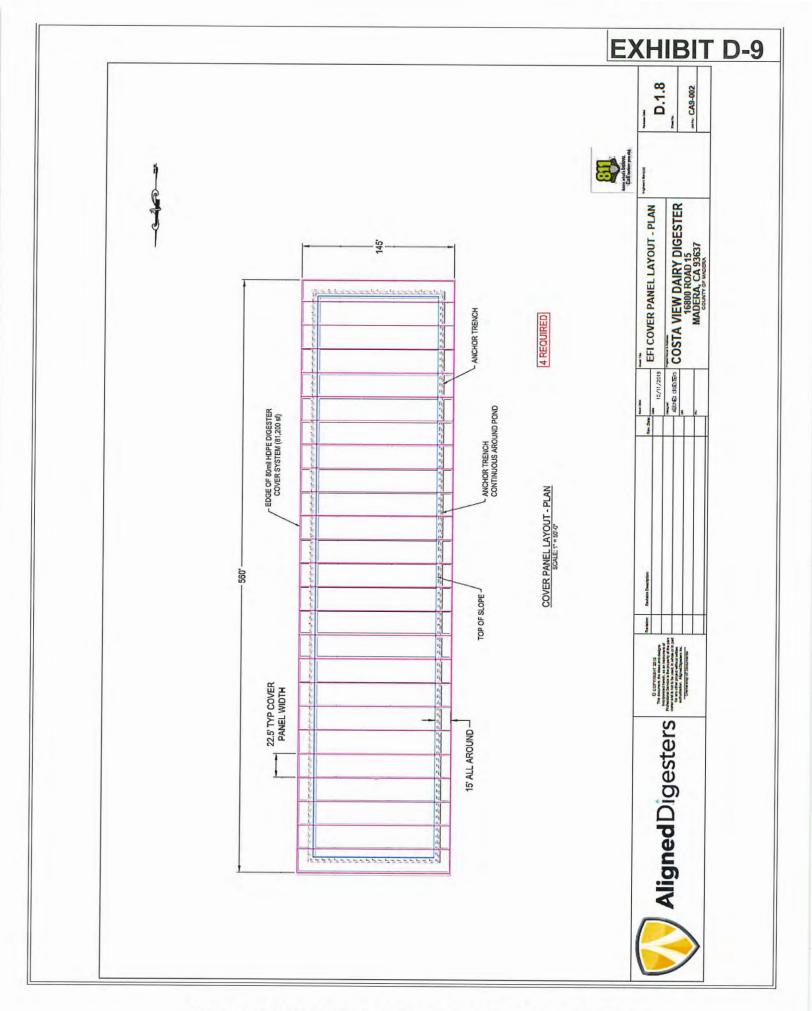
SLUDGE PIPE & BAFFLE WALL SITE PLAN & DETAILS



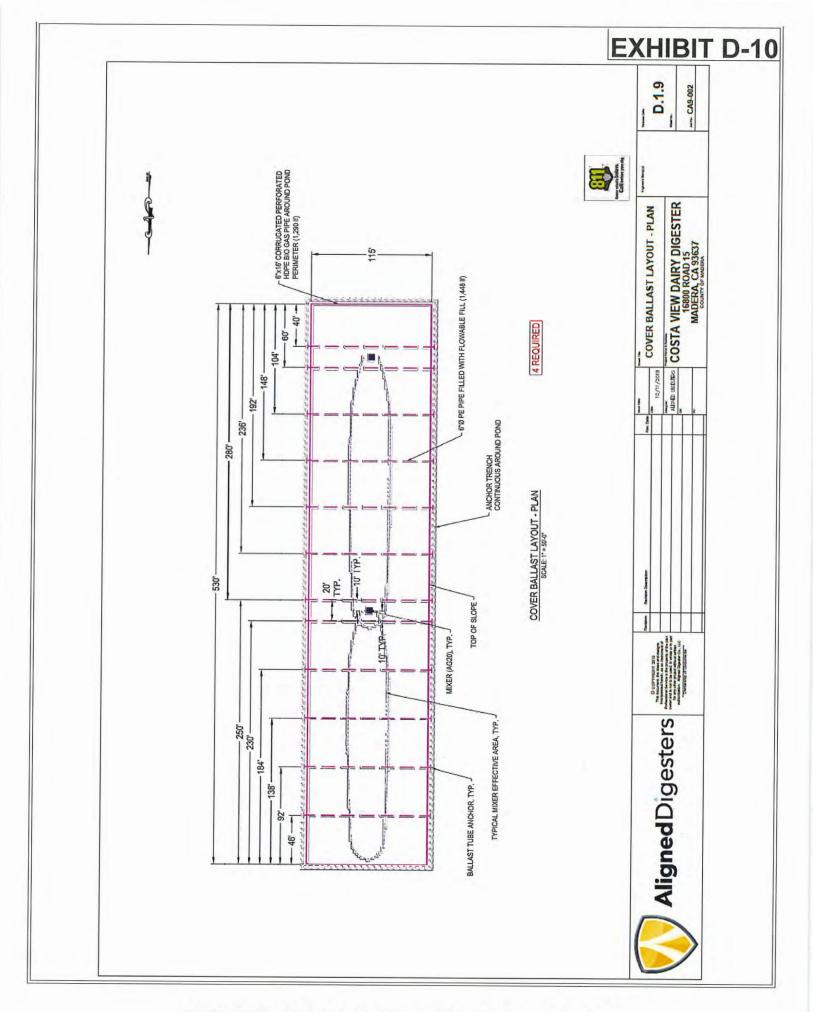
MIXER SITE PLAN & DETAILS



COVER PANEL LAYOUT - PLAN

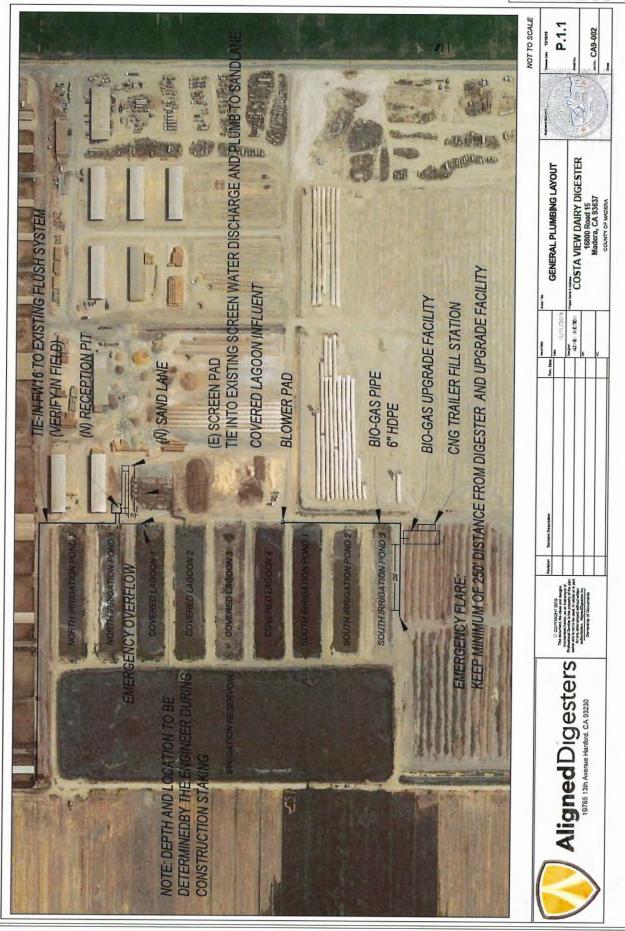


EFI COVER PANEL LAYOUT - PLAN



COVER BALLAST LAYOUT - PLAN

EXHIBIT D-11

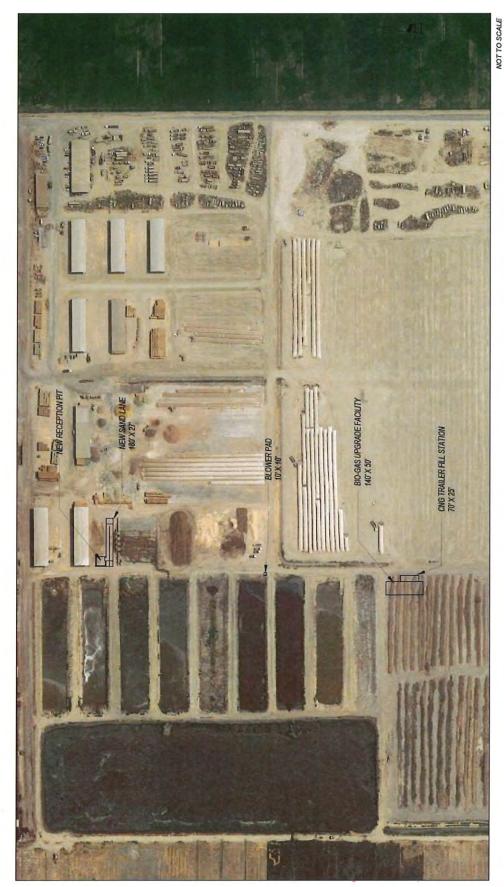


GENERAL PLUMBING LAYOUT

EXHIBIT D-12

- CA9-002

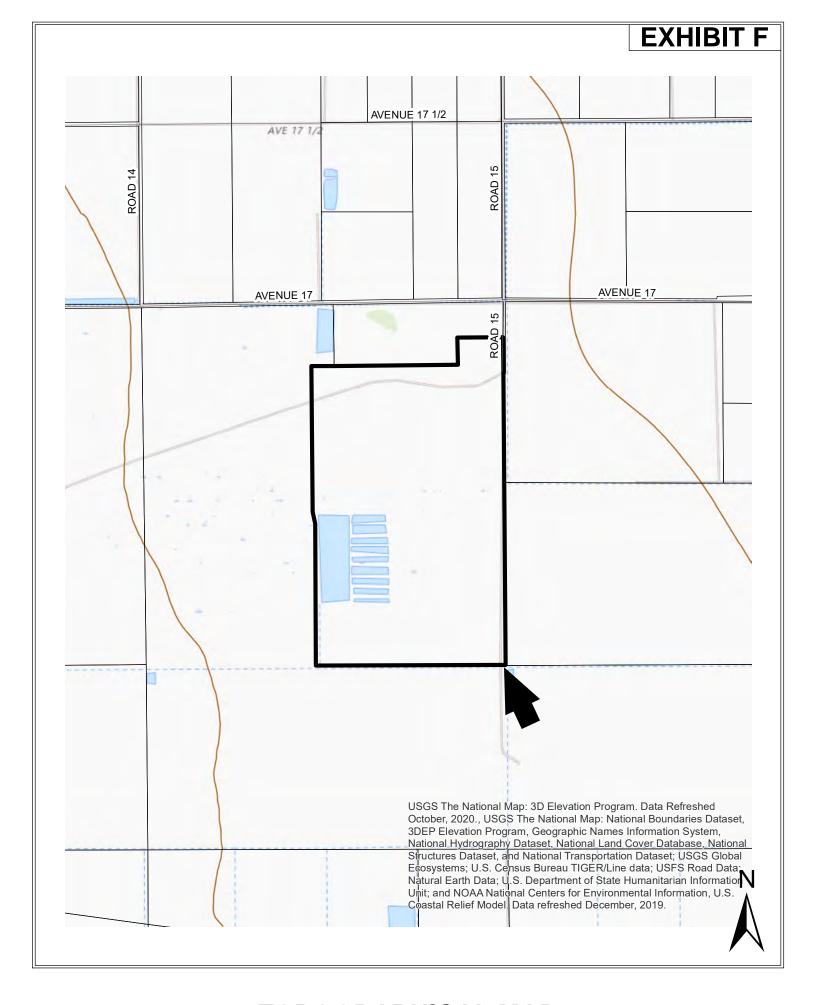
5.1.1



COSTA VIEW DAIRY DIGESTER 16800 Road 15 Madera, CA 93637 COUNTY OF WICHON STRUCTURAL SITE PLAN Aligned Digesters



AERIAL MAP





Community and Economic Development Planning Division

Norman L. Allinder, AICP Director

EXHIBIT (

- 200 W 4" Street
- Suite 3100
- Madera, CA 93637
- (559) 675-7821
- FAX (559) 675-6573
- TDD (559) 675-8970
- mc_planning@madera-county.com

OPERATIONAL/ENVIRONMENTAL STATEMENT CHECKLIST

It is important that the operational/environmental statement provides for a complete understanding of your project proposal. Please be as detailed as possible.

1.	Please provide the following information:
	Assessor's Parcel Number: (Costa View Dairy)
	Applicant's Name: RNG Moovers, LLC
	Address: 12852 Road 9 Madera, CA 93637
	Phone Number: (559) 318-6303
2.	Describe the nature of your proposal/operation. Develop a Covered Lagoon Anaerobic Digester System to cover some of the existing permitted lagoons. Lagoons will not be modified in permitted volume size. The created biogs from the digester
	will be upgraded to meet pipeline quality gas and will furthermore be trucked with Zero Nox CNG Class A semi trucks to a designated RNG injection facility at Soares Dainy in Madera County.
3.	What is the existing use of the property?
4.	What products will be produced by the operation? Will they be produced onsite or at some other location? Are these products to be sold onsite?
	Biogas will be produced at the Costa View Dairy through the constructed Covered Lagoon Anaerobic Digester System. This biogas will be upgraded and converted to Renewable Natural Gas (RNG) Oniste.
	Once the biogas is converted to RNG, it will be hauled to a neighboring facility in (Jose Soares Dairy in Madera County) where it will be injected into the Natural Gas Pipeline.
5.	What are the proposed operational time limits?
	Months (if seasonal): Year round operation
	Days per week: 7
	Hours (fromto _): Total Hours per day: 24 Hour Facility
6.	How many customers or visitors are expected?
	Average number per day: 0
	Maximum number per day: 1
	What hours will customers/visitors be there? 8am-4pm
7.	How many employees will there be?
	Current: N/A
	Future: 1
	Hours they work: Weekly Checkup of 8 Hours
	Do any live analta? If an in what canacity (i.e. caratakar)? N/A

8.	What equipment, materials, or supplies will be used and how will they be stored? If appropriate,
	provide pictures or brochures.
	On-site maintenance technician will have all necessary equipment and supplies in his work truck.
9.	Will there be any service and delivery vehicles? Yes
	Number: ²
	Type: (1) Maintenance Vehicle, (1) Class A Semi for RNG Transport
	Frequency: Once Daily
10.	Number of parking spaces for employees, customers, and service/delivery vehicles. Type of surfacing on parking area. Existing Dairy has assigned parking area. All visitors and employees will park in established designated parking.
11.	How will access be provided to the property/project? (street name) Existing Dairy Access Road for the Digester and Upgrade Equipment
12.	Estimate the number and type (i.e. cars or trucks) of vehicular trips per day that will be generated by the proposed development.
	1 - Car
	1 - Class A Truck
13.	Describe any proposed advertising, inlcuding size, appearance, and placement. No Advertisement Proposed
14.	Will existing buildings be used or will new buildings be constructed? Indicate which building(s) or portion(s) of will be utilized and describe the type of construction materials, height, color, etc. Provide floor plan and elevations, if applicable. No New Buildings. Minor Equipment Slabs will be included as per plans.
15.	Is there any landscaping or fencing proposed? Describe type and location.
16.	What are the surrounding land uses to the north, south, east and west property boundaries?
17.	Will this operation or equipment used, generate noise above other existing parcels in the area? No major noise increases will be seen with the equipment. Noise Levels are around 85bd
18.	On a daily or annual basis, estimate how much water will be used by the proposed development, and how is water to be supplied to the proposed development (please be specific). Existing dairy water supply will be used. Roughly 50 gallons per day and discharge water will go into existing dairy irrigation pond.

19.	On a daily or weekly basis, how much wastewater will be generated by the proposed project and how will it be disposed of? Discharge water to drain into existing dairy irrigation pond.
20.	On a daily or weekly basis, how much solid waste (garbage) will be generated by the proposed project and how will it be disposed of? No daily or weekly solid waste will be generated.
21.	Will there be any grading? Tree removal? (please state the purpose, i.e. for building pads, roads, drainage, etc.) Grading will occur for the equipment pads. Equipment pad will maintain existing drainage slope direction.
22.	Are there any archeological or historically significant sits located on this property? If so, describe and show location on site plan. No.
23.	Locate and show all bodies of water on application plot plan or attached map. Shown in plans
24.	Show any ravines, gullies, and natural drainage courses on the property on the plot plan.
25.	Will hazardous materials or waste be produced as part of this project? If so, how will they be shipped or disposed of? N/A
26.	Will your proposal require use of any public services or facilities? (i.e. schools, parks, fire and police protection or special districts?) N/A
27.	How do you see this development impacting the surrounding area? No impact is anticipated.
28.	How do you see this development impacting schools, parks, fire and police protection or special districts?
29.	If your proposal is for commercial or industrial development, please complete the following; Proposed Use(s): Biogas produced will be upgraded to RNG and hauled to a central injection facility (Jose Soares Dairy Injection Site). Square feet of building area(s): N/A Total number of employees: 2 Building Heights: N/A

30.	If your proposal is for a land division(s), show any slopes over 10% on the map or on an attached
	map.
	N/A

EXHIBIT H

Community and Economic Development

Environmental Health Division

Dexter Marr Deputy Director · 200 W. Fourth St.

• Suite 3100

Madera, CA 93637

• TEL (559) 661-5191

FAX (559) 675-6573TDD (559) 675-8970

M EMORANDUM

TO:

Robert Mansfield

FROM:

Dexter Marr, Environmental Health Division

DATE:

July 22, 2020

RE:

RNG Moovers, LLC - Conditional Use Permit - Chowchilla (023-210-001-000)

Comments

TO:Planning Division

FROM:Environmental Health Division

DATE:July 22, 2020

RE:Conditional Use Permit (CUP) #2020-010, RNG Moovers LLC - Chowchilla, APN: 023210001

Environmental Health Division Comments:

The facilities must comply with their Report of Waste Discharge (RWD) requirements under the Regional Water Quality Control Board (RWQCB).

The facility must comply with their San Joaquin Valley Air Pollution Control Board (SJVAPCD) permit.

The facility must comply with Cal Recycle permit requirements for an Anaerobic Digester.

Provide/Update Pest (vector) Management Plan. The Pest (vector) Management Plan must go into detail of how each known vector will be identified, tracked, eliminated or significantly reduced and how this program will be implemented. This Pest Management Plan must be provided for review and approval by this department prior to approving of this CUP to ensure that vector(s) are handled on site to effectively prevent them or at a minimum significantly reduce them from becoming an off-site nuisance.

Provide/Update Odor and Dust Management Plans. The Management Plans must go into detail in describing how odor and dust control will be managed and implemented. The Odor and Dust Management Plans must be provided for review and approval by this department prior to approval of this CUP to ensure that each known dairy nuisance(s) are handled on site to effectively prevent them from moving off-site creating a nuisance.

If your facility handles/store any hazardous materials on-site or generates hazardous waste you may be subject to permitting requirements though our department. As of January 2013 all Certified Unified Program Agency (CUPA) regulated businesses must submit their Hazardous Material Business Plan electronically into the California Environmental Reporting System (CERS) at www.cers.calepa.ca.gov.

The construction and then ongoing operation must be done in a manner that shall not allow any type of public nuisance(s) to occur including but not limited to the following nuisance(s): Dust Odor(s)

Page 1 of 2

Noise(s), Lighting, Vector(s) or Litter. This must be accomplished under accepted and approved Best Management Practices (BMP) and as required by the County General Plan, County Ordinances and any

other related State and/or Federal jurisdiction.

If there are any questions or comments regarding these conditions/requirements or for please, contact this department at (559) 675-7823.

EXHIBIT I

COUNTY OF MADERA DEPARTMENT OF PUBLIC WORKS

AHMAD M. ALKHAYYAT

DIRECTOR

200 West 4th Street Madera, CA 93637-8720 Main Line - (559) 675-7811 Special districts - (559) 675-7820 Fairmead Landfill - (559) 665-1310

MEMORANDUM

DATE:

July 30, 2020

TO:

Robert Mansfield

FROM:

Madera County Public Works

SUBJECT:

RNG Moovers, LLC - Conditional Use Permit - Chowchilla (023-210-001-000)

Comments

July 29, 2020

CUP #2020-010

At the time of applying for the building permits, the applicant/contractor is required to submit a grading permit to the Public Works Department for review and approval. Grading permit must be obtained prior to performing any grading on site.

This parcel is located within Special Flood Hazard Area Zone A. This approximate A Zone has been mapped by FEMA as a flood zone without BFE's provided. For approximate A Zones with development of 5 Acres or 50 lots, whichever is fewer, a detailed study is required to determine Base Flood Elevations for the 100 year flood plain. The minimum NFIP(National Flood Insurance Program) standard for development in an approximate A zones can be found in Section 60.3(b)(3) of the NFIP regulations. Any questions please contact me at 559-675-7811.

Fahed Mosleh
Engineer I
Madera County Public Works Department
200 W. 4th Street, 3rd Floor
Madera, CA 93637
P 559.675.7811
fahed.mosleh@maderacounty.com





Central Valley Regional Water Quality Control Board

3 September 2020

Robert Mansfield Madera County Community and Economic Development Planning Division 200 West 4th Street Madera. CA 93637

REVIEW OF CONDITIONAL USE PERMIT (CUP #2020-010), RNG MOOVERS LLC, APPLICATION TO ALLOW CONSTRUCTION AND OPERATION OF AN ANAEROBIC DIGESTER SYSTEM AT COSTA VIEW FARMS DAIRY #2 FACILITY, PLACE ID 215853, 16800 ROAD 15, MADERA, MADERA COUNTY

On 23 July 2020, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff received your request for review of the above referenced project. The information you submitted included the Project Review Request (PRR) cover sheet with Development Review Form for the proposed anaerobic digester system at the subject facility with accompanying site plans, general plan map, zoning map and operational/environmental statement checklist.

The PRR consists of a Conditional Use Permit (CUP) proposing to build and operate an anaerobic digester system to capture methane gas from one of the existing wastewater storage ponds at the subject facility (Dairy).

By Executive Office letter of 29 June 2007, the Dairy was enrolled under the Waste Discharge Requirements General Order for Existing Milk Cow Dairies, Order R5-2007-0035 (2007 General Order) and accompanying Monitoring and Reporting Program (MRP). In response to a Sacramento County Superior Court decision, the 2007 General Order was replaced by the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies, Order R5-2013-0122 (Reissued General Order) on 3 October 2013. A Notice of Adopted Reissued General Order issued to the owner/operator of the Dairy by the Executive Officer on 1 November 2013 provided notification of the Dairy coverage under the Reissued General Order.

Provision G.4 of the Reissued General Order requires the submittal of a Report of Waste Discharge (RWD) in accordance with Water Code section 13260 at least 140 days prior to any material change or proposed change in the character, location, or volume of the discharge, including any expansion of the facility or development of any treatment technology, or construction of an anaerobic digester.

Based on the information provided in the PRR and records available in the Central Valley Water Board office, the Discharger is required to submit a complete RWD in order to comply with the requirements of the Reissued General Order.

If you have any questions or need additional information, please contact Balraj Tammali by email at balraj.tammali@waterboards.ca.gov or by telephone at (559) 445-5156.

DALE E. ESSARY, PE

Senior Engineer

Confined Animals Facilities Unit

Dale & Emary

Enclosure: CUP Review Form

cc: Costa View Farms c/o Larry Pietrowski, Madera

County of Madera California Environmental Quality Act (CEQA) Initial Study

1. Project title:

CUP #2020-010 – RNG Moovers, LLC (Costa View Dairy)

2. Lead agency name and address:

County of Madera

Community and Economic Development Department

200 West 4th Street, Suite 3100

Madera, California 93637

3. Contact person and phone

number:

Robert Mansfield, MURP, AICP, Senior Planner

559-675-7821

Robert.mansfield@maderacounty.com

4. Project Location & APN:

The subject property is located on the west side of Road 15

approximately 548 feet south of its intersection with Avenue

17 (16800 Road 15) Madera

APN #: 023-230-005

5. Project sponsor's name

and address:

RNG Moovers, LLC

12852 Road 9

Madera, CA 93637

6. General Plan Designation:

AE (Agricultural Exclusive)

7. Zoning:

ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District

8. Description of project:

The applicant is requesting to amend Conditional Use Permit #98-40 to construct a covered anaerobic digester facility at an existing dairy facility; resultant biogas to be converted to Renewable Natural Gas and transported via Class A trucks to designated RNG injection facility.

Existing Conditions:

Parcel has been developed as a milk dairy, as was approved by Conditional Use Permit (CUP #98-40). Facility includes freestall barns, milking barns and other related structures related to dairies.

Land use in the surrounding area is predominantly agricultural including crops and other dairies.

9. Surrounding Land Uses and Setting:

Agricultural

10. Other Public Agencies Whose Approval is Required:

None

discussion.).

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Under AB 52, Tribal Governments that have requested to be notified of any ministerial projects being processed have been notified pursuant to those requirements. (See Section XVIII for additional

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors of involving at least one impact checklist on the following page	checked below would be poter t that is a "Potentially Significal es.	ntially affected by this project, nt Impact" as indicated by the
☐ Aesthetics	☐ Agricultural/Forestry Resources	☐ Air Quality
☐ Biological Resources	Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	Mineral Resources
□ Noise	☐ Population/Housing	☐ Public Services
Recreation	☐ Transportation	☐ Tribal Cultural Resources
Utilities/Service Systems	Wildfire	Mandatory Findings of Significance
DETERMINATION (to be con	mpleted by Lead Agency)	
On the basis of this initial eva	luation:	
	project COULD NOT have a signi ARATION will be prepared.	ficant effect on the environment,
there will not be a signific	cant effect in this case because re	ificant effect on the environment, evisions in the project have been ED NEGATIVE DECLARATION
	project MAY have a significant ef ACT REPORT is required.	ffect on the environment, and an
significant unless mitigate adequately analyzed in a 2) has been addressed b on attached sheets. An	ed" impact on the environment, b an earlier document pursuant to by mitigation measures based on	significant impact" or "potentially ut at least one effect 1) has been applicable legal standards, and the earlier analysis as described EPORT is required, but it must
because all potentially si EIR or NEGATIVE DECI avoided or mitigated purs	gnificant effects (a) have been a LARATION pursuant to applicab suant to that earlier EIR or NEGA neasures that are imposed upo	ificant effect on the environment, nalyzed adequately in an earlier le standards, and (b) have been TIVE DECLARATION, including in the proposed project, nothing etober 5, 2020

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

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Responses:

Regional views in the western portion of Madera County are characterized by the broad plains of the Central Valley and Sierra Foothills. Lower-elevation views in the region are generally rural in nature with concentrated pockets of small communities. Higher-elevation views in the region include the edge of the Coast Mountain range to the west, Sierra Nevada range to the east, and the Tehachapi Mountains to the south. The primary scenic resources in the County include the ridgelines and steep slopes of the prominent major relief features, such as the mountain ranges listed above, as well as undeveloped rural areas that have retained their nature and scenic integrity.

Public Resource Code §21099, specifically section (d), looks at infill projects and their impacts to aesthetics of residential, mixed-use residential, or employment center projects.

Land uses common in the area include agricultural uses (crops, grazing land, dairies, etc.). There are several vacant parcels (residentially speaking) also in the area.

The proposed project includes a biogas/RNG injection facility that hooks up to a utility pipeline. This facility takes up a minimal portion of the overall existing dairy facility.

(a & b) No Impact. There are no designated scenic vistas by the true definition (scene, view or panorama; it's what one stops to see when one climbs to the top of a mountain, or pull off the road at the "scenic view") in the vicinity of the project site.

The closest areas that are being considered as scenic highways by the California Department of Transportation (CALTRANS) are the areas surrounding the Highways 41 and 49 intersection in and north of Oakhurst.

The visual character of the parcel and the area surrounding it is agriculturally based in terms of structures and land uses. There are few residential type structures in the vicinity.

A nighttime sky in which stars are readily visible is often considered a valuable scenic/visual resource. In urban areas, views of the nighttime sky are being diminished by "light pollution." Light pollution, as defined by the International dark-Sky Association, is any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste. Two elements of light pollution may affect city residents: sky glow and light trespass. Sky glow is a result of light fixtures that emit a portion of their light directly upward into the sky where light scatters, creating an orange-yellow glow above a city or town. This light can interfere with views of the nighttime sky and can diminish the number of stars that are visible. Light trespass occurs when poorly shielded or poorly aimed fixtures cast light into unwanted areas, such as neighboring property and homes.

Light pollution is a problem most typically associated with urban areas. Lighting is necessary for nighttime viewing and for security purposes. However, excessive lighting or inappropriately designed lighting fixtures can disturb nearby sensitive land uses through indirect illumination. Land uses which are considered "sensitive" to this unwanted light include residences, hospitals, and care homes.

Daytime sources of glare include reflections off of light-colored surfaces, windows, and metal details on cars traveling on nearby roadways. The amount of glare depends on the intensity and direction of sunlight, which is more acute at sunrise and sunset because the angle of the sun is lower during these times.

It is anticipated that there will be some lighting associated with the injection facility, but this will be for security purposes only. Given the lack of residential units overall in the vicinity of the project, any lighting will be of minimal impact overall. However, mitigations will be incorporated into the project to maintain a minimal impact.

(c & d) Less Than Significant Impact. Only a small portion of the overall project has the potential of being seen from viewpoints along the road network. As the area is predominated by agricultural uses, the overall impact of seeing these aspects of the project will be minimal.

The proposed above ground structural components of the project are minimal overall, as the majority are at ground level (digester coverings) with few support structures and related injector site facilities. As the site is in an agricultural based area of the county, the overall impact will be minimal.

There is the potential for new lighting proposed for the site. Overall, the increase in lighting will be minimal and localized to the site-specific equipment.

With mitigations, impacts will remain as less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FORESTRY RESOURCES In determining whether agricultural 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture 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 Resources Board.	Шриос		, mpass	
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?				\boxtimes
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 Resources 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?				
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?				

Land uses common in the area is agricultural, with scattered residential structures.

(a - e) No Impact. No impacts have been identified as a result of this project. The parcel and surrounding parcels are zoned agriculturally and are used for agriculturally oriented purposes as defined by County ordinance. No farmland will be affected directly or indirectly as a result of this project. There is no forest land, or zoning for forest land, in the vicinity of the project site.

The property involved in this project is considered Unique Farmland and Farmland of Statewide Importance in the Rural Land Mapping Project of the Farmland Mapping and Monitoring Program of the California Resources Agency. The project will not impact the meaning and intent of these designations.

The project will not violate the intent of the zoning ordinance in that it is consistent with current and expanding technologies being utilized in agricultural operations. This project is not intended to take over the site from the existing use, but only supplement it and decrease potential air and water environmental impacts. The parcel is zoned ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) which allows for dairies by Conditional Use Permit.

While there are properties in the area that may be within the Williamson Act, the two parcels on this specific project are not in the Williamson Act contract. This project as designed will not interfere with any of those properties or contracts.

General Information

The California Land Conservation Act of 1965 -- commonly referred to as the Williamson Act -- enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

The Department of Conservation oversees the Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The program's definition of land is below:

PRIME FARMLAND (P): Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

FARMLAND OF STATEWIDE IMPORTANCE (S): Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

UNIQUE FARMLAND (U): Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include no irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

FARMLAND OF LOCAL IMPORTANCE (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

GRAZING LAND (G): Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

URBAN AND BUILT-UP LAND (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

VACANT OR DISTURBED LAND (V): Open field areas that do not qualify as an agricultural category, mineral and oil extraction area, off road vehicle areas, electrical substations, channelized canals, and rural freeway interchanges.

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

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Responses:

The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, also are factored in. Factors such as wind speed and direction, and air temperature gradients interact with physical landscape features to determine the movement and dispersal of criteria air pollutants.

The area comprising Madera County lies within the San Joaquin Valley Air Basin (SJVAB), basically a flat area bordered on the east by the Sierra Nevada Mountains; on the west by the Coast Ranges; and to the south by the Tehachapi Mountains. Airflow in the SJVAB is primarily influenced by marine air that enters through the Carquinez Straits where the San Joaquin-Sacramento Delta empties into the San Francisco Bay. The region's topographic features restrict air movement through and out of the basin. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Frequent transport of pollutants into the SJVAB from upwind sources also contributes to poor air quality.

Wind speed and direction play an important role in dispersion and transport of air pollutants. During summer periods, winds usually originate from the north end of the San Joaquin Valley and flows in a south-southeasterly direction through the valley, through the Tehachapi pass and into the neighboring Southeast Desert Air Basin. During winter months, winds occasionally originate from the south end of the valley and flow in a north-northwesterly direction. Also, during winter months, the valley experiences light, variable winds, less than 10 miles per hour (mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high concentrations of certain air pollutants.

The SJVAB has an inland Mediterranean climate that is characterized by warm, dry summers and cooler winters. Summer high temperatures often exceed 100 degrees Fahrenheit, averaging from the low 90s in the northern part of the valley to the high 90s in the south. The daily summer temperature variation can be as high as 30 degrees Fahrenheit. Winters are for the most part mild and humid. Average high temperatures during the winter are in the 50s, while the average daily low temperature is in the 40s.

The vertical dispersion of air pollutants in the valley is limited by the presence of persistent temperature inversions. Air temperatures usually decrease with an increase in altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Air above and below an inversion does not mix because differences in air density restrict air pollutant dispersal.

The dairy is located in the San Joaquin Valley Air Basin, which is defined by the Sierra Nevada to the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The SJVAB is comprised of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties, and the valley portion of Kern County (approximately 25,000 square miles).

Commonly identified greenhouse gases and sources include: Carbon dioxide (CO_2) , Methane (CH_4) , Nitrous Oxide (N_2O) , water vapor, Ozone (O_3) , Chlorofluorocarbons (CFC_s) , Hydrofluorocarbons (HFC_s) , Perfluorocarbons (PFC_s) , and Sulfur hexafluoride (SF_6) .

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2 , CH_4 , and N_2O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2 . Therefore, CH_4 is a much more potent GHG than CO_2 . Methane is an odorless greenhouse gas that absorbs and reflects terrestrial radiation back to the earth. Methane is emitted into the environment from various sources including ruminant livestock and manure decomposition. Methane accounts for about 30% of the anthropogenic methane generated in the United States.

Methane generation from ruminant animals is influenced by feed quality, essential nutrients in the feed, quantitative feeding level and feed schedule, and animal health. Methane is released through the animal's mouth, nostrils and digestive system and from anaerobic decomposition of livestock manure.

Part of this project uses methane production as a part of the process to produce biogas that is eventually turned into RNG. Because the system is encapsulated, the amount of methane emitted from the dairy itself will be lessened.

(a - d) Less Than Significant Impact. Construction related emissions are temporary in nature. Graders, loaders, excavators, backhoes, concrete trucks, pumper trucks, water trucks, hauling trucks and dump trucks will be utilized for the duration of the construction phase. While yes, these vehicles could potentially contribute negatively to the area air quality, once again it will be for a short duration in the big picture.

Construction emissions will predominately be related to $PM_{2.5}$ and PM_{10} (Particulate Matter of 2.5 and 10 micron in size respectively) from fugitive emissions. $PM_{2.5}$ and PM_{10} emissions will occur during any earthmoving (grading) activities. There will also be a limited increase in diesel emissions from the heavy equipment associated with the grading and construction activities. These emissions will be temporary in nature for the duration of the construction process.

Project operations would not significantly contribute negatively to the local air quality, or to criteria pollutant emissions. It is anticipated that there may even be a reduction in emissions based on the nature of the project and end product generation.

Sensitive receptors are facilities that "house or attract children, the elderly, people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities and residential areas are examples of sensitive receptors." (GAMAQI, 2002).

There are no residences in the immediate vicinity of the project, the concentration of those residences is such that any pollutant concentrations that may be generated as a result of the project will have dispersed enough to not be a significant factor.

Given the distances between habitation and uses, odors are not substantially concentrated. As the odors spread from their source, they tend to disperse and dilute. While there might be "faint traces" of odors, they are not as concentrated. This is typical of this type of operation.

Construction impacts would be localized to the area where the turnout and pipeline would be placed. Given the distances to the potential receptors, any potential impacts would be minimized. No operational odors have been identified.

An odor management plan has been prepared per request of County Environmental Health. While not necessarily an air quality issue, vector management practices have been and will continue to be in place to reduce vector impacts.

With mitigations, any impacts will remain at less than significant impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES Would the project:	торис	mosiporatori	», par	,
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 Game 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, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
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 a native wildlife nursery site?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				\boxtimes
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?				

The area where the facility's located includes a large portion of western Madera County. The climate of this region is characterized by hot, dry summers and cool, wet winters. Urban areas are centered within the cities of Madera and Chowchilla, while the remaining portions of the area are characterized as agricultural lands. The San Joaquin River delineates the area boundary to the south and west, while the northern boundary is established by the Chowchilla River. The Fresno River and Chowchilla Canal are other major water bodies in the area.

The evaluation of biological resources includes a programmatic review of vegetation and wildlife habitat, special-status species, and wetland habitats that may meet the criteria for jurisdictional waters of the U.S. which occur or potentially occur in the area. The results of this programmatic evaluation are based upon literature searches and database queries of known and existing data.

The area surrounding the proposed project site has been disturbed through agricultural uses, roads, canals, and residential units are in the area. Orchards surround the project site and represent the primary land use in the area. Habitats/land uses identified within the project site included ruderal and irrigation canal. Ruderal (disturbed) areas consist of road margins, the edge of an almond orchard and the edge of an agricultural basin.

The California Department of Fish and Wildlife (formally the Department of Fish and Game) was also contacted, and provided with a review packet, for this project. As of the writing of this Initial Study, there was no response.

(a) Less Than Significant Impact. While species have been identified as being potentially in the quadrangle of this project, no impacts to those species have been identified as a result of this project, directly or indirectly. A vernal pool is defined as a contained basin depression lacking a permanent above ground outlet. They contain water for a few months in the spring and early summer. There are no vernal pools or habitats identified on the project site, nor any that would be impacted directly or indirectly as a result of this project. There are no federally identified wetlands on the project site. The chances of any of the species identified in the area being on this parcel are minimal at best.

Riparian habitats are found along rivers, creeks, streams, and lakes and are made up of plant communities of woody vegetation. Riparian habitat can range from a dense thicket of shrubs to a closed canopy of large mature trees covered by vines. Vernal pools are temporary pools of water that provide habitats. They are considered to be a distinctive type of wetland usually devoid of fish, and thus allow the safe development of natal amphibian and insect species. Most vernal pools are dry for at least part of the year. There are no indications of vernal pools present on the project site.

While there might be other species indicated in adjacent quadrangles, again due to the limited nature of this project and the fact that the land uses of the area have been occurring for countless years, it is less than likely that the proposed use will have any impacts to those species.

The Center Canal and the Salisberry Canal traverse the site and contain little in the way of riparian vegetation. The Fresno River, adjacent to the southern border of the project site, has been channeled by levees.

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized in some fashion by federal, state, or other agencies as deserving special consideration. Some of these species receive specific legal protection pursuant to federal or state endangered species legislation. Others lack such legal protection, but have been characterized as "sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives.

While the list below shows a species listed in the quadrangle in which this project is located, this does not necessarily mean that this species is actually located on the project site either in a habitat setting or migrating through. The CNDB only lists species in the quadrangle where the project is located, but this never is an indication of whether these species are or ever were on the project site. The Department of Fish and Wildlife was contacted in the early stages of the project for review and comment on the proposal. They did not provide any feedback as to whether there were any potential impacts on the site.

Special Status Species is a general term that refers to all taxa tracked by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), the USFWS IPac, and the CNPS (Resource Agencies), regardless of their legal or protection status. Special Status Species include:

- Plants and animals that are legally protected or proposed for protection under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA);
- Plants and animals defined as endangered or rare under the California Environmental Quality Act (CEQA) §15380;
- Animals designated as species of special concern by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG);
- Animals listed as "fully protected" in the Fish and Game Code of California (§3511, §4700, §5050 and §5515); and
- Plants listed in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California.

A review of the Department of Fish and Wildlife's databases for special status species has identified the following species:

Species	Federal Listing	State Listing	Dept. of Fish and Game Listing	CNPS Listing
Swainson's Hawk	None	Threatened	None	None
Mountain Plover	None	None	SSC	None
Tri-colored Blackbird	None	Threatened	SSC	None
San Joaquin Kit Fox	Endangered	Threatened	None	None
American Badger	None	None	SSC	None
Blunt-nosed Leopard Lizard	Endangered	Endangered	FP	None
Coast Horned Lizard	None	None	SSC	None
Valley Sacaton Grassland	None	None	None	None
Valley Sink Scrub	None	None	None	None
Heartscale	None	Non	None	1B.2
Lesser Saltscale	None	None	None	1B.1
Subtle Orache	None	None	None	1B.2
Palmate-bracted Bird's Beak	Endangered	Endangered	None	1B.1
California Alkali Grass	None	None	None	1B.2
Recurved Larkspur	None	None	None	1B.2

Firebaugh NE Quadrangle

- List 1A: Plants presumed extinct
- List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- List 3 Plants which more information is needed a review list
- List 4: Plants of Limited Distributed a watch list

Ranking

- 0.1 Seriously threatened in California (high degree/immediacy of threat)
- 0.2 Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3 Not very threatened in California (low degree/immediacy of threats or no current threats known)
- SSC Species of Special Concern
- WL Watch List

Movement corridors are characterized by the regular movements of one or more species through relatively well-defined landscape features. They are typically associated with ridgelines, wetland complexes, and well-developed riparian habitats.

The area surrounding the parcel site has been developed for agricultural purposes, so the chances of habitats being present for nesting or migratory species are minimal. There is no construction proposed on the parcel, so there will be no disruptions in that regard.

- (b & c) No Impact. No impacts have been identified as a result of this project.
- (d) Less Than Significant Impact. Ash Slough runs along just outside the south-eastern portion of the project property. The majority of the work is to be in the north-eastern portion of the parcel (where the injection facility is to be placed.
- (e & f) No Impact. No impacts have been identified as a result of this project.

General Information

Effective January 1, 2007, Senate Bill 1535 took effect that has changed de minimis findings procedures. The Senate Bill takes the de minimis findings capabilities out of the Lead Agency hands and puts the process into the hands of the California Department of Fish and Wildlife (formally the California Department of Fish and Game). A Notice of Determination filing fee is due each time a NOD is filed at the jurisdictions Clerk's Office. The authority comes under Senate Bill 1535 (SB 1535) and Department of Fish and Wildlife Code 711.4. Each year the fee is evaluated and has the potential of increasing. For the most up-to-date fees, please refer to: http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

The Valley Elderberry Longhorn Beetle (VELB) was listed as a threatened species in 1980. Use of the elderberry bush by the beetle, a wood borer, is rarely apparent. Frequently, the only exterior evidence of the elderberry's use by the beetle is an exit hole created by the larva just prior to the pupal stage. According to the USFWWS, the Valley Elderberry Longhorn Beetle habitat is primarily in communities of clustered Elderberry plants located within riparian habitat. The USFWS stated that VELB habitat does not include every Elderberry plant in the Central Valley, such as isolated, individual plants, plants with stems that are less than one inch in basal diameter or plants located in upland habitat.

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

Virtually any physical evidence of past human activity can be considered a cultural resource, although not all such resources are considered significant. They often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values. Cultural resources can be defined as buildings, sites, structures, objects, or places of importance that may have historical, architectural, archaeological, cultural, or scientific importance (including those associated with Native Americans or Native American activities). Preservation of the County's unique cultural heritage should be considered when planning for future development of the area.

California Environmental Quality Act (CEQA) §15064.5 mainly describes historical and archaeological resources that need to be taken into consideration for evaluating impacts from any proposed project. The primary factor is determining if there is any potential resources on site, and this is typically done through consultation of tribal members with knowledge of the site or its surroundings, as well as review of jurisdictional documentation. In some cases, tribal members will request any number of site inspections to determine if there are any Native American resources.

The western area of the County was originally inhabited by the Northern Valley Yokuts. Ethnographic information about this group is sparse due to the early dissemination of the aboriginal populations in the lower San Joaquin Valley.

The Northern Valley Yokuts territory is defined roughly by the crest of the Diablo Range on the west, and the foothills of the Sierra Nevada on the east. The southern boundary is approximately where the San Joaquin River bends northwards, and the northern boundary is roughly halfway between the Calaveras and Mokelumne Rivers.

Principle settlements were located on the tops of low mounds, on or near the banks of larger watercourses. Settlements were composed of single family dwellings, sweathouses, and ceremonial assembly chambers. Dwellings were small and lightly constructed, semi-subterranean and oval. The public structures were large and earth covered.

With the development of Spanish Ranchos throughout California, cattle husbandry was prevalent, while dairy farms remained crude and sparse.

(a - c) Less Than Significant Impact with Mitigation Incorporation. Although there is no record of archaeological resources at the dairy facility itself, an Environmental Impact Report done as a part of the "Tri-Dairies" project back in 2007 conducted a cultural resources record search for the Costa View Dairy in August 2006. According to the Southern San Joaquin Valley Historical Resources Information Center's records there are no known cultural resources within the subject parcel area or within ½ mile of the area.

The area surrounding the project site has been developed for agricultural purposes for years with significant ground disturbances as a result (infrastructure, roadways, agricultural uses, etc.).

Due to the agricultural nature of the parcel and its' surroundings, it is not anticipated that any unknown archaeological resources will be disturbed as a result of the project.

Most of the archaeological survey work in the County has taken place in the foothills and mountains. This does not mean, however, that no sites exist in the western part of the County, but rather that this area has not been as thoroughly studied. There are slightly more than 2,000 recorded archaeological sites in the county, most of which are located in the foothills and mountains. Recorded prehistoric artifacts include village sites, camp sites, and bedrock milling stations, pictographs, petroglyphs, rock rings, sacred sites, and resource gathering areas. Madera County also contains a significant number of potentially historic sites, including homesteads and ranches, mining and logging sites and associated features (such as small camps, railroad beds, logging chutes, and trash dumps).

Public Resource Code 5021.1(b) defines a historic resource as "any object building, structure, site, area or place which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." These resources are of such import, that it is codified in CEQA (PRC §21000) which prohibits actions that "disrupt, or adversely affect a prehistoric or historic archaeological site or a property of historical or cultural significance to a community or ethnic or social groups; or a paleontological site except as part of a scientific study."

Archaeological importance is generally, although not exclusively, a measure of the archaeological research value of a site which meets one or more of the following criteria:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory.
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions.

- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.
- Is at least 100 years old and possesses substantial stratigraphic integrity (i.e. it is essentially undisturbed and intact).
- Involves important research questions that historic research has shown can be answered only with archaeological methods.

As a result of AB 52, which requires jurisdictions to notify Tribal Governments that request such outreach, the County alerted Tribal Entities that requested initial review packets. The Picayune Rancheria of Chukchansi Indians to date have been the only tribe to respond back to the County. They indicated that they had no comments or concerns over the project.

With mitigations, any impacts can be reduced to less than significant impact.

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

Responses:

PG&E is the primary provider of energy to the area, and by all accounts has sufficient supplies to support growth within the County.

Construction vehicles and construction worker vehicles utilize fossil fuels. The increased fuel consumption during the construction would be of temporary nature.

(a - b) Less Than Significant Impact. There will be some construction related activities occurring during the connection of piping for the digester. Operationally, there may be some vehicle related impacts in regards to vehicle trips for maintenance and end use.

The overall goal of the project is to produce biogas, which can be utilized as an alternative fuel source towards the production of energy. Most dairies have a dairy digester on site and a system by which to produce energy for their purposes on-site as well. In some cases, dairies will connect to delivery infrastructure (pipes, collection points, etc.) in order to sell off excess biogas to the utility infrastructure.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS Would the project:	пприст	то роганоп	impact	прасс
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone 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?			\boxtimes	
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				\boxtimes
b) Result in substantial soil erosion or the loss of topsoil?				
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?				
d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				\boxtimes
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?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				\boxtimes

The regional geology of the area is influenced by the Great Valley, a topographically dominant northwest-trending valley approximately 50 miles wide and 400 miles long that formed between the Coast Range Mountains to the west and the Sierra Nevada Mountains to the east. The Great Valley itself is divided into northern and southern portioned, named the Sacramento and San Joaquin Valleys respectively. The western portion of the county, which consists of the rich alluvial bottom lands of the San Joaquin Valley, is predominately agricultural. Most of the County's agricultural activities occur here, due to the level topography, prime cultivable soils, and excellent drainage.

Soils in the western (or valley) portion of Madera County can generally be placed in one of three major groups: recent alluvial fans and flop plains, the basin area, and older alluvial fans and terraces. The recent alluvial fans are gently sloping cone-shaped features located primarily along the Chowchilla, Fresno and San Joaquin Rivers. Flood plain soils along the San Joaquin River resulted primarily from flood events now largely controlled by Friant Dam. The basin area is located in the western portion of the valley and is nearly level. The area contains fine soil carried beyond the alluvial fans and deposited in the slower water of the flatlands. The older alluvial fans and terraces are areas that no longer receive flood deposits and have been subject to erosion and weathering in the time since their deposition.

All soils of the site and on surrounding lands no longer maintain their native soil characteristics due to soil disturbing activities associated with agricultural practices.

(a i - iii) Less than Significant Impact. Madera County is divided into two major physiographic and geologic provinces: the Sierra Nevada Range and the Central Valley. The Sierra Nevada physiographic province in the northeastern portion of the county is underlain by metamorphic and igneous rock. It consists mainly of homogenous types of granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley province, underlain by marine and non-marine sedimentary rocks.

The foothill area of the County is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams which carry runoff from the Sierra Nevadas.

Seismicity varies greatly between the two major geologic provinces represented in Madera County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada's, partly within Madera County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Ranges on the west side of the Central Valley are also a result of these forces, and continued movement of the Pacific and North American tectonic plates continues to elevate the ranges. Most of the seismic hazards in Madera County result from movement along faults associated with the creation of these ranges.

There are no active or potentially active faults of major historic significance within Madera County. The County does not lie within any Alquist Priolo Special Studies Zone for surface faulting or fault creep.

However, there are two significant faults within the larger region that have been and will continue to be, the principle sources of potential seismic activity within Madera County.

<u>San Andreas Fault</u>: The San Andreas Fault lies approximately 45 miles west of the county line. The fault has a long history of activity and is thus a concern in determining activity in the area.

Owens Valley Fault Group: The Owens Valley Fault Group is a complex system containing both active and potentially active faults on the eastern base of the Sierra Nevada Range. This group is located approximately 80 miles east of the County line in Inyo County. This system has historically been the source of seismic activity within the County.

The *Draft Environmental Impact Report* for the state prison project near Fairmead identified faults within a 100-mile radius of the project site. Since Fairmead is centrally located along Highway 99 within the county, this information provides a good indicator of the potential seismic activity which might be felt within the County. Fifteen active faults (including the San Andreas and Owens Valley Fault Group) were identified in the *Preliminary Geotechnical Investigation*. Four of the faults lie along the eastern portion of the Sierra Nevada Range, approximately 75 miles to the northeast of Fairmead. These are the Parker Lake, Hartley Springs, Hilton Creek and Mono Valley Faults. The remaining faults are in the western portion of the San Joaquin Valley, as well as within the Coast Range, approximately 47 miles west of Fairmead. Most of the remaining 11 faults are associated with the San Andreas, Calaveras, Hayward and Rinconada Fault Systems which collectively form the tectonic plate boundary of the Central Valley.

In addition, the Clovis Fault, although not having any historic evidence of activity, is considered to be active within quaternary time (within the past two million years), is considered potentially active. This fault line lies approximately six miles south of the Madera County line in Fresno County. Activity along this fault could potentially generate more seismic activity in Madera County than the San Andreas or Owens Valley fault systems. However, because of the lack of historic activity along the Clovis Fault, there is inadequate evidence for assessing maximum earthquake impacts.

Seismic ground shaking, however, is the primary seismic hazard in Madera County because of the County's seismic setting and its record of historical activity (General Plan Background Element and Program EIR). The project represents no specific threat or hazard from seismic ground shaking, and all new construction will comply with current local and state building codes. Other geologic hazards, such as landslides, lateral spreading, subsidence, and liquefaction have not been known to occur within Madera County.

According to the Madera County General Plan Background Report, ground shaking is the primary seismic hazard in Madera County. The valley portion of Madera County is located on alluvium deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground shaking than those located in the foothill and mountain areas.

Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground shaking. According to the Madera County General Plan Background Report, although there are areas of Madera County where the water table is at 30 feet or less below the surface, soil types in the area are not conducive to liquefaction because they are either too coarse in texture or too high in clay content; the soil types mitigate against the potential for liquefaction.

While the County has not been affected directly by any known recent earthquakes, there still stands the possibility of being affected by those elsewhere. The 2019 Ridgecrest earthquake (Ridgecrest, CA near China Lake Military Installation) is an example of this. While the quake was centered in proximity to Ridgecrest, Madera County and surrounding communities felt the vibrations.

- (a iv) No Impact. The area is topographically flat, so landslides are not likely.
- **(b)** Less Than Significant Impact. The parcel is subject to potential erosion due to rain events. Due to the topographically flat nature of the project site, the erosion may be minimal. The area surrounding where the venue is on the property is paved, so rainfall will flow off in accordance to the sloping nature of the paved area, no matter how minimal the slope is.
- (c f) No impact. There are no known impacts that will occur as a direct or indirect result of this project.

The Project site and surrounding areas do not contain substantial grade changes. Risk of landslides, lateral spreading, subsidence, liquefaction, and collapse are minimal. The Project does not propose significant alteration of the topography of the site and it does not involve development of structures or facilities that could be affected by expansive soils or expose people to substantial risks to life or property.

No septic tanks or alternative wastewater disposal systems are proposed as a part of this project.

The proposed project is not in an area known for paleontological resources.

VIII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	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?				\boxtimes

The Earth's climate has been warming for the past century. It is believed that this warming trend is related to the release of certain gases into the atmosphere. Greenhouse gases (GHG) absorb infrared energy that would otherwise escape from the Earth. As the infrared energy is absorbed, the air surrounding the Earth is heated. An overall warming trend has been recorded since the late 19th century, with the most rapid warming occurring over the past two decades. The 10 warmest years of the last century all occurred within the last 15 years. It appears that the decade of the 1990s was the warmest in human history (National Oceanic and Atmospheric Administration, 2010). Human activities have been attributed to an increase in the atmospheric abundance of greenhouse gases.

The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, also are important. Factors such as wind speed and direction, and air temperature gradients interact with physical landscape features to determine the movement and dispersal of criteria air pollutants.

The area within Madera County lies within the San Joaquin Valley Air Basin (SJVAB), basically a flat area bordered on the east by the Sierra Nevada Mountains; on the west by the Coast Ranges; and to the south by the Tehachapi Mountains. Airflow in the SJVAB is primarily influenced by marine air that enters through the Carquinez Straits where the San Joaquin-Sacramento Delta empties into the San Francisco Bay. The region's topographic features restrict air movement through and out of the basin. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Frequent transport of pollutants into the SJVAB from upwind sources also contributes to poor air quality.

Wind speed and direction play an important role in dispersion and transport of air pollutants. During summer periods, winds usually originate from the north end of the San Joaquin Valley and flows in a south-southeasterly direction through the valley, through the Tehachapi pass and into the neighboring Southeast Desert Air Basin. During winter months, winds occasionally originate from the south end of the valley and flow in a north-northwesterly direction. Also, during winter months, the valley experiences light, variable winds, less than 10 miles per hour (mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high concentrations of certain air pollutants.

The SJVAB has an inland Mediterranean climate that is characterized by warm, dry summers and cooler winters. Summer high temperatures often exceed 100 degrees Fahrenheit, averaging from the low 90s in the northern part of the valley to the high 90s in the south. The daily summer temperature variation can be as high as 30 degrees Fahrenheit. Winters are for the most part mild and humid. Average high temperatures during the winter are in the 50s, while the average daily low temperature is in the 40s.

The vertical dispersion of air pollutants in the valley is limited by the presence of persistent temperature inversions. Air temperatures usually decrease with an increase in altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Air above and below an inversion does not mix because differences in air density restrict air pollutant dispersal.

Commonly identified greenhouse gases and sources include: Carbon dioxide (CO_2) , Methane (CH_4) , Nitrous Oxide (N_2O) , water vapor, Ozone (O_3) , Chlorofluorocarbons (CFC_s) , Hydrofluorocarbons (HFC_s) , Perfluorocarbons (PFC_s) , and Sulfur hexafluoride (SF_6) .

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO₂ to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO₂, CH₄, and N₂O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO₂e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂.

The impacts of climate change have yet to fully manifest. A hotter plant is causing the sea level to rise, disease to spread to non-endemic areas, as well as more frequent and severe storms, heat events, and air pollution episodes. Also affected are agricultural production, the water supply, the sustainability of ecosystems, and therefore the economy. The magnitude of these impacts is unknown.

Long term operational emissions associated with the project are estimated to be minimal in nature. Maintenance will be provided on an as needed basis by existing MID staff. Additionally, it is anticipated that the project will reduce energy usage and pollution. To the extent that Greenleaf Orchards uses surface water made available by the proposed project, less groundwater would be pumped so its well pumps would run for shorter time periods.

- (a) Less than Significant Impact. Gases that trap heat in the atmosphere are called greenhouse gases. The principle greenhouse gases are: Carbon Dioxide (CO_2) , Methane (CH_4) , Nitrous Oxide (N_2O) , Sulfur Hexafluoride (SF_6) , Perfluorocarbons (PFCs), Hydrofluorocarbons (HFCs) and water vapor (H_sO) . Carbon Dioxide (CO_2) and methane are greenhouse gases that are prevalent at dairies, with the production of cow manure. However, this project, and others like it, capture the vast majority of the off-gassing of manure (known as biogas) and are able to convert it into something that can be utilized in generation of electricity either at the source or in the power grids.
- (b) No Impact. No impacts have been identified as a result of this project.

In accordance with SJVAPCD recommended guidance, project generated emissions would be considered less than significant if (1) the project complies with applicable best performance standards, (2) operational GHG emissions would be reduced or mitigated by a minimum of 29% in comparison to business as usual (year 2004) conditions, or (3) project generated emissions would comply with an approved plan or mitigation program.

Greenhouse Gas (GHG) Emissions: The potential effect of greenhouse gas emission on global climate change is an emerging issue that warrants discussion under CEQA. Unlike the pollutants discussed previously that may have regional and local effects, greenhouse gases have the potential to cause global changes in the environment. In addition, greenhouse gas emissions do not directly produce a localized impact, but may cause an indirect impact if the local climate is adversely changed by its cumulative contribution to a change in global climate. Individual development projects contribute relatively small amounts of greenhouse gases that when added to other greenhouse gas producing activities around the world would result in an increase in these emissions that have led many to conclude is changing the global climate. However, no threshold has been established for what would constitute a cumulatively considerable increase in greenhouse gases for individual development projects. The State of California has taken several actions that help to address potential global climate change impacts.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, outlines goals for local agencies to follow in order to bring Greenhouse Gas (GHG) emissions to 1990 levels (a 25% overall reduction) by the year 2020. The California Air Resources Board (CARB) holds the responsibility of monitoring and reducing GHG emissions through regulations, market mechanisms and other actions. A Draft Scoping Plan was adopted by CARB in order to provide guidelines and policy for the State to follow in its steps to reduce GHG. According to CARB, the scoping plan's GHG reduction actions include: direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

Following the adoption of AB 32, the California State Legislature adopted Senate Bill 375, which became the first major bill in the United States that would aim to limit climate change by linking directly to "smart growth" land use principles and transportation. It adds incentives for projects which intend to be in-fill, mixed use, affordable and self-contained developments. SB 375 includes the creation of a Sustainable Communities Strategy (SCS) through the local Metropolitan Planning Organizations (MPO) in order to create land use patterns which reduce overall emissions and vehicle miles traveled. Incentives include California Environmental Quality Act streamlining and possible exemptions for projects which fulfill specific criteria.

IX. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	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 or excessive noise for people residing or working in the project area?				
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?			\boxtimes	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				
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The western part of Madera County has historically experienced several concerns related to hazardous materials. The dominant land use in the area consists of existing dairies and irrigated agricultural crop production. Additional land uses include agricultural crop processing facilities, grain storage facilities and irrigation water supply canals and reservoirs.

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The California Code of Regulations (CCR) defines a hazardous material as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (CCR Title 22 Division 4.5 Chapter 10 Article 2 §66260.10).

Hazardous wastes are defined in the same manner. Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxicity, ignitability, corrosively, and reactivity.

The use and management of chemicals, including hazardous materials, within the agricultural areas of the County are dominated by the application of fertilizer and pesticides for crop production. Hazardous materials management in agricultural areas also includes storage and use of hydrocarbon fuel. Diesel fuel is used to power mobile farm equipment (trucks, tractors, combines) and stationary equipment, including irrigation pumps and groundwater well pumps. Gasoline is stored at some facilities. Other hazardous materials used at dairies can include chlorine and other disinfectants, oils and lubricants, and antifreeze.

The greatest wildland fire hazards exist in areas with quickly ignitable, dense understory vegetation, such as grasses, adjacent to slower and hotter burning fuels such as trees. These conditions exist in varying degrees over approximately two-thirds of Madera County, to the north and east of the Madera Canal.

Hazardous materials are used for the operation of the dairies and continued agricultural production in the project area but are applied by contract and not stored on the project site. Fuel stored in above ground tanks, lubricants, and cleaning solutions are required for the operation and maintenance of equipment during normal operations. Pesticides (for control of vectors) and medicines for dairy cattle are used at the dairy. Agricultural chemicals, including insecticides, herbicides, and fertilizer are used for continued farming.

(a - g) Less Than Significant Impact. The western part of Madera County has historically experienced several concerns related to hazardous materials. Typically, these hazards are in line with agriculturally based operations (fertilizers, pesticides, equipment oils and grease, etc.). The use and management of chemicals, including hazardous materials, within the agricultural areas of the County are dominated by the application of fertilizer and pesticides for crop production.

Construction activities would likely require use of limited quantities of hazardous materials such as fuels for construction equipment, oils, lubricants, and the like. The improper use, storage, handling, transport or disposal of these materials could result in accidental release. Due to the minimal amounts typically in these vehicles, no real impact is anticipated.

Handling of hazardous materials is covered by federal and state laws which minimize worker safety risks from both physical and chemical hazards in the workplace. Businesses are required to submit a Hazardous Materials Management Plan with the local CUPA which performs routine inspections to ensure compliance with regulations. Transportation of materials is covered by the Department of Transportation (DOT).

Any hazardous material because of its quantity, concentration, physical or chemical properties, pose a significant present or potential hazard to human health and safety, or the environment the California legislature adopted Article I, Chapter 6.95 of the Health and Safety Code, Sections 25500 to 25520 that requires any business handling or storing a hazardous material or hazardous waste to establish a Business Plan. The information obtained from the completed Business Plans will be provided to emergency response personnel for a better-prepared emergency response due to a release or threatened release of a hazardous material and/or hazardous waste.

Business owners that handle or store a hazardous material or mixtures containing a hazardous material, which has a quantity at any one time during the year, equal to or greater than:

- 1) A total of 55 gallons,
- 2) A total of 500 pounds.
- 3) 200 cubic feet at standard temperature and pressure of compressed gas.
- 4) Any quantity of Acutely Hazardous Material (AHM).

Assembly Bill AB 2286 requires all business and agencies to report their Hazardous Materials Business Plans to the Certified Unified Program Agency (CUPA) information electronically at http://cers.calepa.ca.gov

The project is not located near either airport in the County. There are no known agricultural or private airstrips in the vicinity of the project.

According to the Department of Toxic Substance Control (DTSC), there are no sites on or near this project site that is or was hazardous waste sites.

The California Department of Forestry and Fire Protection (Cal-Fire) provides for protection services to most of Madera County.

County services such as fire suppression continue to remain inadequate and seriously underfunded. While not normally an environmental concern, new residential development in the foothills represents a heightened potential for fire risks, risks that the County does not have the resources to counter. While new development is required to maintain a fire safe area around each home site, little if any efforts are extended to the majority of large rural home sites to maintain a fire safe perimeter.

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

Madera County lies entirely within the San Joaquin River hydrological watershed, the boundaries of which are formed by the ridge lines of the Sierra Nevada, the Tehachapi, and the Coast Ranges. The most prominent hydrological features in the county are the San Joaquin, Fresno and Chowchilla Rivers. In the foothills, there are large reservoirs including Eastman, Hensley, Millerton, Bass Lake and Mammoth Pool.

The San Joaquin River forms the southern and western borders of Madera County. Originating in the high Sierras, southwest of Yosemite National Park, it serves as the principle drainage system for the San Joaquin Valley. Most of the other rivers and creeks in the valley are tributaries of the San Joaquin. The river is impounded at Friant Dam in Fresno County, forming Millerton Lake, which lies partially in Madera County. From this point, most of the water is diverted into the Madera and Friant-Kern Canals, and the remainder is released into the river below the dam.

The Fresno River is a tributary of the San Joaquin River and runs from the eastern portion of the county in the Sierra Nevadas, through the City of Madera, joining the San Joaquin River near the northwestern corner of the County. Its elevation ranges between approximately 7,100 feet at its headwaters, to approximately 10 feet at its lowest point in the valley. Cottonwood Creek, which is connected to the Fresno River near its intersection with the Madera Canal, serves as a distributary of the river's waters during flood flows.

The Chowchilla River is also a tributary of the San Joaquin River. The Chowchilla River originates in Mariposa County to the north, and forms a portion of Madera County's northwestern border, running parallel to the Fresno River. Its elevation ranges from approximately 6,800 feet at is headwaters to approximately 100 feet at its lowest point. Ash and Berenda Slough serves as distributaries for its floodwaters.

Only a short portion of the Merced River runs through Madera County, with the majority lying in Mariposa and Merced Counties. The stretching lying within Madera County (portions of its south and main forks) are above 5,100 feet.

The Madera Canal is a component of the U.S. Bureau of Reclamation Control Valley Project and is managed by the Madera Irrigation District (MID) for the conveyance of CVP water from Millerton Lake to agricultural users. The canal is located east of the cities of Madera and Chowchilla, approximately at the valley's eastern edge.

The dairy site is located within the San Joaquin Basin Hydrologic Study Area, which includes roughly the southern two-thirds of the Central Valley. In western Madera County, groundwater occurs in unconfined, semi-confined, and confined aquifers.

(a & b) No Impact. No impacts identified as a result of this project.

The major wastewater treatment plants in the County are operated in the incorporated cities of Madera and Chowchilla and the community of Oakhurst. These wastewater systems have been recently or are planned to be upgraded, increasing opportunities for use of recycled water. The cities of Madera and Chowchilla have adopted or are in the process of developing Urban Water Management Plans. Most of the irrigation and water districts have individual groundwater management plans. All of these agencies engage in some form of groundwater recharge and management.

Groundwater provides almost the entire urban and rural water use and about 75 percent of the agricultural water use in the Valley Floor. The remaining water demand is met with surface water. Almost all of the water use in the Foothills and Mountains is from groundwater with only three small water treatment plants relying on surface water from the San Joaquin River and its tributaries.

Existing dairy water will be used. Roughly 50 gallons of water per day will be used in the digester equipment. Dairy water is characterized as that used as a part of the flushing of stalls and related facilities onsite. What drainage there will be, will be utilized by the irrigation pond.

(c i - iii) Less Than Significant Impact. The erosion or siltation caused by the project is anticipated to be less than significant.

The rate and amount of surface runoff from the proposed project would not be substantially increased as a result of the project.

It is not expected that the project will substantially create runoff that exceeds the stormwater drainage capacity nor produced polluted runoff.

- (c iv) No Impact. No impacts have been identified as a result of this project.
- (d) No Impact. A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes, or changes in barometric pressure. A tsunami (from the Japanese language, roughly translated as "harbor wave") is an unusually large sea wave produced by seaquake or undersea volcanic eruption. According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. Additionally, there are no bodies of water (lakes, etc.) within proximity of the site. Madera County is geographically located in the center of the state, therefore not affected by tsunamis.
- **(e)** Less Than Significant Impact. Due to the nature of the project, it is potentially an impact to groundwater. It is potential a SWPPP and adherence to Regional Water Quality Control requirements will be in order.

General Information

Groundwater quality contaminants of concern in the Valley Floor include high salinity (total dissolved solids), nitrate, uranium, arsenic, methane gas, iron, manganese, slime production, and dibromochloropropane with the maximum contaminant level exceeded in some areas. Despite the water quality issues noted above, most of the groundwater in the Valley Floor is of suitable quality for irrigation. Groundwater of suitable quality for public consumption has been demonstrated to be present in most of the area at specific depths.

Groundwater quality contaminants of concern in the Foothills and Mountains include manganese, iron, high salinity, hydrogen sulfide gas, uranium, nitrate, arsenic, and methylbutylethylene (MTBE) with the maximum concentration level being exceeded in some areas. Despite these problems, there are substantial amounts of good-quality groundwater in each of the areas evaluated in the Foothills and Mountains. Iron and manganese are commonly removed by treatment. Uranium treatment is being conducted on a well by the Bass Lake Water Company.

A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes, or changes in barometric pressure. A tsunami (from the Japanese language, roughly translated as "harbor wave") is an unusually large sea wave produced by seaquake or undersea volcanic eruption. According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. As this property is not located near any bodies of water, no impacts are identified.

The flood hazard areas of the County of Madera are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstruction in areas of special flood hazards which increase flood height and velocities also contribute to flood loss.

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

Responses:

The Madera County General Plan provides a general and comprehensive statement of land use policies that will guide future growth in the County. The General Plan designation for the site is Agricultural Exclusive (AE). The AE designation is intended to provide the county with enough land area for most intense agricultural uses. It provides for agricultural uses, limited agricultural support services (barns, animal feed facilities, silos, stables, etc.) agriculturally oriented services and similar and compatible uses.

The Madera County Zoning Ordinance designates the parcel as Agricultural, Rural, Exclusive, 40-acre (ARE-40). The ARE-40 district lists dairies as a compatible use but requires a conditional use permit. The purpose of the ARE-40 zone is to provide for intensive farming operations which are dependent on higher quality soils, water availability, and relatively flat topography.

Surrounding land use is predominately agriculture.

(a - b) No Impact. No impacts identified as a result of this proposed project.

The project in and of itself is not proposing any changes in land use or zoning. The construction and operations do not propose any changes to existing land uses. Nor will it require the removal of any crops or land as a result of the project.

XII. MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	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?				\boxtimes
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?				

Responses:

Mineral resources in Madera County include aggregate and stone for commercial, industrial and construction uses. There are several active quarry mining operations in the county, which generate essential aggregate and mineral resources. These materials include: (1) broken and crushed stone used primarily for waterway armor (riprap); (2) crushed rock used mainly as road base; (3) sand and gravel used as bituminous and concrete aggregate; (4) specialty sands including foundry and glass; and (5) dimension stone.

(a - b) No Impact. There are no known minerals in the vicinity of the project site.

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

The proposed project is located in an area of western Madera County, or more specifically, the area of the County considered most likely to accommodate future growth in agricultural facilities. The noise sources associated with these types of facilities are mainly agricultural equipment, and vehicles operating on local roadways. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity.

The proposed project is comprised of an existing basin and agricultural land.

(a - b) Less than Significant Impact. The applicant anticipates an increase of 80 decibels at 3 feet distance as a result of the equipment used. Given the lack of dense population in the area, and the decrease in noise levels every doubling of distance from the source, it is not anticipated to be a significant impact.

It is not anticipated that the proposed project would generate excessive ground borne vibration or noise level. Operations are anticipated to be similar to those of existing agricultural operations. The project is expected to minimally contribute to ground borne vibration and noise levels in the area.

c) No Impact. The project is not within proximity to a known airport. The project is not in an Airport/Airspace Overlay district. This project will not interfere with flight patterns as an overall whole.

General Discussion

The Noise Element of the Madera County General Plan (Policy 7.A.5) provides that noise which will be created by new non-transportation noise sources shall be mitigated so as not to exceed the Noise Element noise level standards on lands designated for noise-sensitive uses. However, this policy does not apply to noise levels associated with agricultural operations. All the surrounding properties, while include some residential units, are designated and zoned for agricultural uses. This impact is therefore considered less than significant.

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g. demolition/land clearing, grading and excavation, erection). The United States Environmental Protection Agency has found that the average noise levels associated with construction activities typically range from approximately 76 dBA to 84 dBA Leq, with intermittent individual equipment noise levels ranging from approximately 75 dBA to more than 88 dBA for brief periods.

Short Term Noise

Noise from localized point sources (such as construction sites) typically decreases by approximately 6 dBA with each doubling of distance from source to receptor. Given the noise attenuation rate and assuming no noise shielding from either natural or human-made features (e.g. trees, buildings, and fences), outdoor receptors within approximately 400 feet of construction site could experience maximum noise levels of greater than 70 dBA when onsite construction-related noise levels exceed approximately 89 dBA at the project site boundary. Construction activities that occur during the more noise-sensitive eighteen hours could result in increased levels of annoyance and sleep disruption for occupants of nearby existing residential dwellings. As a result, noise-generating construction activities would be considered to have a potentially significant short-term impact. However, with implementation of mitigation measures, this impact would be considered less than significant.

Long Term Noise

Mechanical building equipment (e.g. heating, ventilation and air conditioning systems, and boilers), associated with the proposed structures, could generate noise levels of approximately 90 dBA at 3 feet from the source. However, such mechanical equipment systems are typically shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures.

Landscape maintenance equipment, such as leaf blowers and gasoline powered mowers, could result in intermittent noise levels that range from approximately 80 to 100 dBA at 3 feet, respectively. Based on an equipment noise level of 100 dBA, landscape maintenance equipment (assuming a noise attenuation rate of 6 dBA per doubling of distance from the source) may result in exterior noise levels of approximately 75 dBA at 50 feet.

MAXIMUM ALLOWABLE NOISE EXPOSURE FOR NON-TRANSPORTATION NOISE SOURCES*

		Residential	Commercial	Industrial	Industrial	Agricultural
				(L)	(H)	
Residential	AM	50	60	55	60	60
	PM	45	55	50	55	55
Commercial	AM	60	60	60	65	60
	PM	55	55	55	60	55
Industrial	AM	55	60	60	65	60
(L)	PM	50	55	55	60	55
Industrial	AM	60	65	65	70	65
(H)	PM	55	60	60	65	60
Agricultural	AM	60	60	60	65	60
	PM	55	55	55	60	55

^{*}As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers at the property line.

AM = 7:00 AM to 10:00 PM

PM = 10:00 PM to 7:00 AM

L = Light

H = Heavy

Note: Each of the noise levels specified above shall be lowered by 5 dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).

Vibration perception threshold: The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of one-tenth (0.1)_inches per second over the range of one to one hundred Hz.

Reaction of Peop	le and Damage to Buildings from	Continuous Vibration Levels
Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006 to 0.019	Threshold of perception; possibility of intrusion	Damage of any type unlikely
0.08	Vibration readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Continuous vibration begins to annoy people	Virtually no risk of architectural damage to normal buildings
0.20	Vibration annoying to people in buildings	Risk of architectural damage to normal dwellings such as plastered walls or ceilings
0.4 to 0.6	Vibration considered unpleasant by people subjected to continuous vibrations vibration	Architectural damage and possibly minor structural damage
Source: Whiffen and Le	eonard 1971	

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

Responses:

The dairy is located in the rural northwest portion of the County. The site and surrounding lands are in intensive agricultural use and zoned ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) district. There are no rural residential land uses in the area. There may be an occasional residential unit on or near the site, for the property owner or farm workers. The General Plan designation of AE (Agricultural Exclusive) lends towards agricultural uses.

(a - b) No Impact. No impacts identified as a result of this project.

XV. PUBLIC SERVICES a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
i) Fire protection?				\boxtimes
ii) Police protection?			\boxtimes	
iii) Schools?				\boxtimes
iv) Parks?				\boxtimes
v) Other public facilities?				\boxtimes
Responses:				

County services such as fire and law enforcement continue to remain inadequate and seriously underfunded. While not normally an environmental concern, new residential development in the foothills represents a heightened potential for fire risks, risks that the County does not have the resources to counter.

The nearest fire station to the project site is Station #4, located northeast of the community of Dairyland, at 13802 Avenue 21. Staffed by paid on-call firefighters. Station #4 is approximately 3 1/2 miles north of the dairy facility.

The Madera County Sheriff's Office patrols from the Madera Station and Chowchilla Substation.

The site is in the Alview/Dairyland Union Elementary School District and the Chowchilla Union High School District.

(a - i) No Impact. It is not anticipated that there will be any need for additional fire services as it relates to this project.

Madera County Fire Department provides fire protection services to all unincorporated areas of Madera County, which has an estimated 2000 population of 74,734 persons. MCFD provides fire protection services to unincorporated areas of the County. The Fire Department has 17 fire stations, a fleet of 56 apparatus and support vehicles; and 32 career fire suppression personnel and 175 paid call firefighters, and seven support personnel. The Fire Department responds to structure fires, vehicle accidents, medical aide, or any other emergencies. Sever of Madera County's fire stations are staffed 24 hours a day by a full-time career fire captain or fire apparatus engineer, and five of these stations are augmented by paid call firefighters. The remaining 10 fire stations are staffed exclusively by paid call firefighters.

The Madera County Fire Department exists through a contract between Madera County and CalFire (California Department of Forestry and Fire Prevention) and operates six stations for County responses in addition to the state-funded CALFIRE stations for state responsibility areas. Under an "Amador Plan" contract, the County also funds the wintertime staffing of four fire seasonal CALFIRE stations. In addition, there are ten paid-call (volunteer) fire companies that operate from their own stations. The administrative, training, purchasing, warehouse, and other functions of the Department operate through a single management team with County Fire Administration.

The California Department of Forestry and Fire Protection (CDF) provides for protection services to most of Madera County. There are CDF fire stations located within the vicinity of Oakhurst, staffed mostly by a volunteer personnel on a paid per call basis. Other stations in the area include facilities in Coarsegold, O'Neals, and Ahwahnee. There is a CDF (Cal-Fire) station just south and west of the site on the west side of Highway 41.

(a - ii) Less Than Significant Impact. The proposed project in and of itself would not result in any additional demands for police protection with the exception of ancillary need for potential events of vandalism and theft.

Crime and emergency response is provided by the Madera County Sherriff's Department. There will be an incidental need for law enforcement in the events of theft and vandalism on the project site.

There is the minor chance of equipment being stolen or vandalized. Given the remoteness of the project site, the theft may go unnoticed for some time.

Crime and emergency response is provided by the Madera County Sherriff's Department. There will be an incidental need for law enforcement in the events of theft and vandalism on the project site.

County Sherriff's Department personnel are strapped for resources as well. With new development, the potential for criminal activity (including but not limited to: home burglaries, assaults, auto thefts) increases.

Currently, the Madera County's Sherriff's Department provides law enforcement and patrols in the planning area, operating from substations in Oakhurst on Road 425B and the Mountain Government Center in Bass Lake. The Sherriff's Office had no comment for this project.

A Federal Bureau of Investigations 2009 study suggests that there is on average of 2.7 law enforcement officials per 1,000 population for all reporting counties. The number for cities had an average of 1.7 law enforcement officials per 1,000 population.

(a - iii through v) No Impact. No impacts identified as a result of this project.

A project that adds homes and commercial buildings to a community typically increases the need for various municipal services, such as fire and police protection. As the Court of Appeal recently confirmed in <u>City of Hayward v. Board of Trustees</u>, that need, though, is not itself an "environmental impact" of the project that the California Environmental Quality Act ("CEQA") requires the project proponent to mitigate.

In City of Hayward, a state university prepared an environmental impact report ("EIR") evaluating the environmental effects of its proposed master plan for the expansion of its campus, including two specific building projects, one for student housing and one for a parking structure. It concluded that building out the master plan would result in significant effects on aesthetics, air quality, cultural resources, and traffic, notwithstanding implementation of all feasible mitigation. All other effects, including effects on public services, were found to be insignificant or fully mitigated. The EIR concluded that the increase in campus population would not result in a significant environmental effect regarding fire and emergency medical services provided by the city fire department. It explained that the increased population would call for the addition of 11 firefighters, roughly the equivalent of one fire company, in order to maintain an adequate service ratio of one staff person for 1,000 people and that the facilities to house the added staff would be achieved by adding a bay to an existing fire station or constructing a new fire station. Noting that construction of such facilities would be subject to review under CEQA. the EIR concluded that since construction of such facilities would affect only a small area (an acre or less) in an urban location, it would not cause significant environmental effects. Based on this analysis, the EIR concluded that no mitigation regarding fire protection services was required.

The City of Hayward, in which the campus is located, sued alleging that the university had failed to comply with CEQA. The city contended that the university first should have concluded that the project would have a significant effect on emergency response times and thus the health and safety of the community, owing to the nonexistence of the additional firefighters and facilities needed to serve the increased population, and then should have assessed possible measures to mitigate that effect, such as hiring additional firefighters and building facilities to house them. The trial court agreed, explaining that it is not the increased demand for fire protection services that must per se be evaluated as an environmental impact, but rather that the lack of adequate fire protection services resulting from the project would have adverse effects on people and property. The university appealed.

The Court of Appeal reversed. With respect to the contention that the campus population increase would delay emergency response times and that would have real effects on the spread of fire and the safety of people and property, the Court responded: "While this may be true, the obligation to provide adequate fire and emergency medical services is the responsibility of the city [under the California Constitution.] The need for additional fire protection services is not an environmental impact that CEQA requires a project proponent to mitigate." The Court noted that the EIR analyzes response times and their impact on public safety, "concludes that the project will cause response times to fall to an inadequate level and finds that 11 additional fire fighters will be required to maintain adequate service levels," and "sets forth measures needed to provide adequate emergency services and concludes . . . that those measures will not have a significant effect on the environment." In the Court's view, that sufficed. It explained: "Although there is undoubtedly a cost involved in the provision of additional emergency services, there is no authority upholding the city's view that CEQA shifts financial responsibility for the provision of adequate fire and emergency response services to the project sponsor. The city has a constitutional obligation to provide adequate fire protection services. Assuming the city continues to perform its obligations, there is no basis to conclude that the project will cause a substantial adverse effect on human beings."

The Court found the EIR adequate as well in all other respects, except one, its discussion of the project's effects on two neighboring parks and ordered a writ of mandate to issue accordingly.

The Court's opinion may serve to help stem the practice of some agencies to use CEQA as a mechanism to help fund municipal services by treating projects' needs for such services as environmental impacts and calling on project proponents to mitigate those impacts by paying for municipal services and facilities.

The building construction will be governed by the requisite Building, Life, Safety and Fire Codes applicable at the time of construction. The mitigation tied to this finding is written in such a manner as to leave open as to what year the applicable codes will be enforced at the time of construction. This will ensure that the most current codes are followed instead of being tied to outdated codes.

No impacts are anticipated as a result of this project as it does not relate to any educational programs or increase the surrounding population. With the exception of an on-site manager, the facility will act more of a transient use type facility geared towards the tourism industry,

The area's public schools are provided by Yosemite Union High School District and Bass Lake Elementary School District; each head-quartered in Oakhurst adjoining the Oak Creek Intermediate School. The high school has an approximate attendance of 1000 students from ninth to twelfth grade. A bond issue was passed to assist in the expansion of school facilities including, but not limited to: addition of new classrooms, new multi-use buildings, new performance arts building, parking and recreation facilities. The Oak Creek Intermediate School provides enrollment for grades 6-8 and has a student population of approximately 225, while Oakhurst Elementary serves grades K-6 and has a student population of approximately 400. Wassuma Elementary School in Ahwahnee provides k-8 facilities for approximately 360 students. The remainder of student enrollments for the area is in Mountain Home K-10. Bass Lake K-5 and Wawona K-6 schools.

Most facilities within the district rely on portable classrooms to accommodate current enrollment with little or no reserve space. Both Yosemite Union High School District and Bass Lake Elementary School district report a trend towards declining enrollment. Long term forecasts for enrollment are not available.

The Madera County General Plan allocates three acres of park available land per 1,000 residents' population.

XVI. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				

Responses:

(a - b) No Impact. No impacts as a result of this project.

The closest parkland and recreational facilities to the site are located in the cities of Chowchilla and Madera, approximately 12 and 18 miles east of the dairy.

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

Responses:

State Route 99 (SR 99) is a four-lane freeway that links the County with the entire State and is the eastern boundary of where most of the dairies are located. SR 99 is one of the most important corridors to the economic livelihood of the San Joaquin Valley because it serves as a main shipping line for agricultural products and other commercial goods. SR 99 is also the primary link to Interstate 5, connecting the Valley with Los Angeles and Sacramento metropolitan areas.

Stare Route 145 (SR 145) is a two- and four-lane highway extending north/south from the Fresno County line to the City of Madera, then east/west to its intersection with SR41, SR 145 provides secondary access to Yosemite National Park via SR 41, and provides an important link to both SR 99 and Interstate 5. It runs north/south through an eastern portion of the County where the majority of dairies exist and is also a key shipping route for agricultural products.

State Route 152 (SR 152) is a four-lane divided expressway extending east and west from the Merced County Line to SR 99. SR 152 is a primary access route from the central San Joaquin Valley to Monterey and Santa Clara Counties. This state route is considered an important agricultural, commercial, and recreational access route and runs east/west through the northern portion of where the dairies exist in the county.

State Route 233 (SR 233) is a two- and four-lane highway extending four miles northeasterly from its intersection with SR 152 to the interchange with SR 99. This route serves primarily to provide for northbound traffic movement from SR 152 and SR 99 as well as local access to Chowchilla.

In addition to the regional state routes, a variety of County maintained roadways pass through the area. These include Avenue 7, Avenue 14, Avenue 18 ½, Road 16 and Road 9.

As with most rural areas, Eastern Madera County is served by limited alternative transportation modes. Currently, only limited public transportation facilities or routes exist within the area. Volunteer systems such as the driver escort service, as well as the senior bus system, operate for special purpose activities and are administered by the Madera County Action Committee. The rural densities which are prevalent throughout the region have typically precluded successful public transit systems, which require more concentrated populations in order to gain sufficient ridership. Oakhurst is therefore dependent on private automobile and truck access.

According to the Madera County Transportation Commission (MCTC), the traffic counts for the area range from 1,241 north bound to 1,106 south bound vehicles along Road 36 south of its' intersection with Avenue 12, which is the closest intersection to this project site (0.68 of a mile north) for which there are traffic counts for 2018.

Traffic generated for the project will predominately be associated with the construction phase of the project. Maintenance related traffic will be minimal.

- (a & b) Less Than Significant Impact. The generation of traffic is considered to be minimal, with one periodic vehicle for maintenance checks, and then one delivery (gas from other dairy) daily.
- (c & d) No Impact. The proposed project does not propose any roadway changes or infrastructure other than that for the canal work described.

The project is not anticipating to change the vehicular traffic (employee vehicles, delivery trucks, etc.) from the originating dairy operations.

In the area around the proposed project, opportunities for bicycles and pedestrians, especially as an alternative to the private automobile, are significantly limited by lack of developed shoulders, sidewalks or pavement width accommodating either mode. The condition is not uncommon in rural areas where distances between origins and destinations are long and the terrain is either rolling or mountainous. In the locations outside urbanized portions of the County, the number of non-recreational pedestrians/cyclists would likely be low, even if additional facilities were provided.

As with most rural areas, Madera County is served by limited alternative transportation modes. Currently, only limited public transportation facilities or routes exist within the area. Volunteer systems such as the driver escort service, as well as the senior bus system, operate for special purpose activities and are administered by the Madera County Action Committee. The rural densities which are prevalent throughout the region have typically precluded successful public transit systems, which require more concentrated populations in order to gain sufficient ridership.

Local circulation is largely deficient with these same State Highways and County Roads composing the only existing network of through streets. Most local streets are dead-end drives, many not conforming to current County improvement standards. Existing traffic, particularly during peak hour and key intersections, already exhibits congestion.

Madera County is predicted to experience significant population growth in the coming years (62.27 percent between 2008 and 2030). Accommodating this amount of growth presents a challenge for attaining and maintain air quality standards and for reducing greenhouse gas emissions. The increase in population is expected to be accompanied by a similar increase in vehicle miles traveled (VMT) (61.36 percent between 2008 and 2030).

Emissions of CO (Carbon Monoxide) are the primarily mobile-source criteria pollutant of local concern. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed and delay. Carbon monoxide transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). As a result, the SJVAPCP recommends analysis of CO emissions of at a local rather than regional level. Local CO concentrations at intersections projected to operate at level of service (LOS) D or better do not typically exceed national or state ambient air quality standards. In addition, non-signalized intersections located within areas having relatively low background concentrations do not typically have sufficient traffic volumes to warrant analysis of local CO concentrations.

Local circulation is largely deficient with these same State Highways and County Roads composing the only existing network of through streets. Most local streets are dead-end drives, many not conforming to current County improvement standards. Existing traffic, particularly during peak hour and key intersections, already exhibits congestion.

Local circulation improvement is needed to support state highways and county roads forming the majority of the existing network of through streets. Many local streets are deadend drives (some of which do not conform to current County improvement standards). Emergency access is, therefore, an important issue for area residents.

Several natural barriers such as the Fresno River, numerous tributary creeks and rocky and steep mountain terrain have precluded or complicated a more complete network of regional or community circulation routes. Financial constraints in the past prevented the design and construction of transportation routes which serve the community as a whole rather than individual private development. New developments occurring within the county are required to provide adequate access in the form of local roads to serve development.

The maneuvering of project construction vehicles and equipment among general purpose vehicles on local roads could cause safety hazards. Haul trucks and other on-road vehicles to be used during project construction could increase the hazard risk on existing roadways. The traffic safety hazard risk could increase because of conflicts with construction vehicles entering a public right-of-way from a project worksite; conflicts where road width is narrowed or a roadway is closed during construction activities, which could result in delays to emergency vehicles passing through a project area; or increased traffic (necessitating slower speed and a wider turning radius) during construction.

In addition to these potential impacts, the use of large trucks to transport equipment and material to and from the worksite could affect road conditions on the access roads by increasing the rate of road wear.

In 2013, the State of California passed Senate Bill 743 (SB 743) which mandates that jurisdictions can no longer use automobile delay – commonly measured by "level of service" – when doing transportation analysis under CEQA. Rather, the State has issued guidelines suggesting using a more holistic metric that can better support smart growth – called "vehicle miles traveled."

CEQA §15064.3(b) considers any project that would decrease the amount of traffic in a region, or is located within ½ mile of a transit stop (sometimes considered "within walking distance") as less than significant. This particular project does not fit either of those categories.

XVIII.	TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) V c re S c ir s	Vould the project cause a substantial adverse hange in the significance of a tribal cultural esource, defined in Public Resources Code Section 21074 as either a site, feature, place ultural landscape that is geographically defined in terms of the size and scope of the landscape, acred place, or object with cultural value to a california Native American tribe, and that is:				
i.	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				
ii.	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				

Responses:

Cultural resources can be defined as buildings, sites, structures, objects, or places of importance that may have historical, architectural, archaeological, cultural, or scientific importance (including those associated with Native Americans or Native American activities). Preservation of the County's unique cultural heritage should be considered when planning for future development of the area.

The western area of the County was originally inhabited by the Northern Valley Yokuts. Ethnographic information about this group is sparse due to the early dissemination of the aboriginal populations in the lower San Joaquin Valley.

The Northern Valley Yokuts territory is defined roughly by the crest of the Diablo Range on the west, and the foothills of the Sierra Nevada on the east. The southern boundary is approximately where the San Joaquin River bends northwards, and the northern boundary is roughly halfway between the Calaveras and Mokelumne Rivers.

Principle settlements were located on the tops of low mounds, on or near the banks of larger watercourses. Settlements were composed of single-family dwellings, sweathouses, and ceremonial assembly chambers. Dwellings were small and lightly constructed, semi-subterranean and oval. The public structures were large and earth covered.

With the development of Spanish Ranchos throughout California, cattle husbandry was prevalent, while dairy farms remained crude and sparse.

As a result of AB 52, which requires jurisdictions to notify Tribal Governments that request such outreach, the County alerted Tribal Entities that requested initial review packets.

(a – i, ii) No Impact. No impacts identified.

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

Loca Than

Responses:

Water Quality Issues

Erosion and sedimentation/siltation are two potentially significant impacts related to development with the entire Oakhurst area. These impacts are generally proportional to the intensity of development which occurs in an area, including the amount of the clearing and grading which is necessary.

Rainfall is unable to percolate into the portions of each site that are paved over and is converted almost entirely into storm run-off, often exceeding the capacity of existing drainage system, causing intermittent flooding, increased flooding and other adverse impacts. Pollutants associated with parking lots (oil & grease predominately) will be found in high quantities after the first rain of the season. These pollutants have the potential of contaminating ground and surface water sources.

Groundwater availability issues

Groundwater within the area is generally limited and unpredictable as a result of geologic formation which characterizes the mountain and foothill regions of Madera County. These areas are generally underlain by impervious bedrock, and "groundwater" is available only through water bearing fractures within these formations. Within these "fracture" systems the ability to store and transmit water is solely dependent on the development of secondary openings such as faults, joints and exfoliation planes.

Due to these concerns regarding the uncertainty of groundwater, the Area Plan outlines the need to both understand groundwater availability for the area, and to examine opportunities to develop a source of surface water for the community. Several potential surface water sources for the greater eastern Madera County area have been evaluated over the years. Planning documents for the area beginning in the early 1960's identified the potential for a "Soquel" reservoir above Oakhurst within the Sierra National Forest. Later concepts included purchasing surface rights and delivering water from Bass Lake or the Fresno River. Most recently, the potential to purchase and deliver water from Redinger Lake has been studied. The development and implementation of a plan for surface water source been hindered by the presence of existing commitments for all surface water in the Additionally, environmental clearances, technical requirements, and the costs associated with developing a surface water source are significant. Despite these hurdles, the Area Plan notes that a surface water source must be viewed as the long-term solution and includes as a policy the initiation of a study to examine opportunities for a surface water source. The following Area Plan policies are proposed to address issues related to the provision of water.

Wastewater Issues

The reliance on septic systems has generated concerns regarding potential impacts to both surface and ground water quality, particularly where septic systems are concentrated on individual lots. This project will have an on-site treatment facility.

Solid Waste Issues

According to the Madera County General Plan Background report, all solid waste generated in the unincorporated area is currently disposed of at the Fairmead Landfill, which is owned by the County and operated by Madera Disposal Systems, Inc. The landfill facility is located on 48 acres at the southeast corner of Road 19 and Avenue 22. The landfill is expected to reach capacity in 2020. If additional waste can be diverted, the life of the expansion area could be increased. There is the potential for approximately 28 residential units' total that would be in need of disposing of residential related waste material to this landfill. Recycling measures are strongly encouraged. According to the California Integrated Waste Management Board, the generation rate per resident is 0.63 pounds per day of trash.

(a - e) No Impact. No impacts have been identified as a result of this project.

The dairy is in the rural area of the County. Urban services are not available, nor are they needed to support the agricultural area.

General Discussion

Madera County has 34 County Service Areas and Maintenance Districts that together operate 30 small water systems and 16 sewer systems. Fourteen of these special districts are located in the Valley Floor, and the remaining 20 special districts are in the Foothills and Mountains. MD-1 Hidden Lakes, Bass Lake (SA-2B and SA-2C) and SA-16 Sumner Hill have surface water treatment plants, with the remaining special districts relying solely on groundwater.

The major wastewater treatment plants in the County are operated in the incorporated cities of Madera and Chowchilla and the community of Oakhurst. These wastewater systems have been recently or are planned to be upgraded, increasing opportunities for use of recycled water. The cities of Madera and Chowchilla have adopted or are in the process of developing Urban Water Management Plans. Most of the irrigation and water districts have individual groundwater management plans. All of these agencies engage in some form of groundwater recharge and management.

Groundwater provides almost the entire urban and rural water use and about 75 percent of the agricultural water use in the Valley Floor. The remaining water demand is met with surface water. Almost all of the water use in the Foothills and Mountains is from groundwater with only three small water treatment plants relying on surface water from the San Joaquin River and its tributaries.

In areas of higher precipitation (Oakhurst, North Fork, and the topographically higher part of the Coarsegold Area), groundwater recharge is adequate for existing uses. However, some problems have been encountered in parts of these areas due to well interference and groundwater quality issues. In areas of lower precipitation (Raymond-Hensley Lake and the lower part of the Coarsegold area), groundwater recharge is more limited, possibly requiring additional water supply from other sources to support future development.

Madera County is served by a solid waste facility (landfill) in Fairmead. There is a transfer station in North Fork. The Fairmead facility also provides for Household Hazardous Materials collections on Saturdays. The unincorporated portion of the County is served by Red Rock Environmental Group. Above the 1000 foot elevation, residents are served by EMADCO services for solid waste pick-up.

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

Responses:

(a – d) No Impact. No impacts identified as a result of this project.

The Project is not located in or near a state responsibility area or very high fire hazard severity zone. The Project would have no impact on emergency response plans adopted by Madera County.

The Project is not located in or near a state responsibility area or very high fire hazard severity zone. The proposed Project does not include the installation or maintenance of infrastructure that may exacerbate fire risk or may result in temporary or ongoing impacts to the environment.

The project does not propose any actions or structures that would expose people or structures to significant risks. Furthermore, the proposed project would not generate runoff, post-fire slope instability or negatively impact drainage.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)				
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			\boxtimes	

Responses:

CEQA defines three types of impacts or effects:

- Direct impacts are caused by a project and occur at the same time and place (CEQA §15358(a)(1).
- Indirect or secondary impacts are reasonably foreseeable and are caused by a project but occur at a different time or place. They may include growth inducing effects and other effects related to changes in the pattern of land use, population density or growth rate and related effects on air, water and other natural systems, including ecosystems (CEQA §15358(a)(2).
- Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (CEQA §15355(b)). Impacts from individual projects may be considered minor, but considered retroactively with other projects over a period of time, those impacts could be significant, especially where listed or sensitive species are involved.

- (a) Less Than Significant Impact. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, would have a less than significant effect on the environment. The potential for impacts to biological resources, geology and soils, and cultural resources from the implementation of the proposed Project would be less than significant with the incorporation of the mitigation measures. Accordingly, the Project would involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period of California history or prehistory
- **(b)** Less Than Significant Impact. CEQA Guidelines Section 15064(i) States 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. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects.
- (c) Less Than Significant Impact. The project would include the construction of pipeline and a new injection facility. The project in and of itself would not create significant hazard to the public or the environment. Implementation of the project would allow Greenleaf Orchards to utilize surface water for its irrigation operations. Air quality/dust exposure impacts could occur temporarily as a result of project construction. However, implementation of basic regulatory requirements would ensure that impacts are less than significant.

Mitigation Measures

See attached.

Bibliography

California Department of Finance

California Department of Transportation (CALTRANS)

California Integrated Waste Management Board

California Environmental Quality Act Guidelines

United States Environmental Protection Agency

Caltrans website http://www.dot.ca.gov/hq/LandArch/scenic highways/index.htm

California Department of Fish and Wildlife "California Natural Diversity Database" https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018410-cnddb-quickview-tool

Madera County Airport Land Use Compatibility Plan

Madera County Dairy Standards Environmental Impact Report

Madera County General Plan

Madera County Integrated Regional Water Management Plan

Madera County Department of Environmental Health

Madera County Fire Marshall's Office

Madera County Department of Public Works

Madera County Roads Department

State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark. Sacramento, California, May 2012

U.S. Department of the Interior, Bureau of Reclamation Categorical Exclusion Checklist. 2019.

MND 2020-13

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October 5, 2020

MITIGATED NEGATIVE DECLARATION

MND

RE: CUP #2020-010 - RNG Moovers - Costa View Dairy

LOCATION AND DESCRIPTION OF PROJECT:

The subject property is located on the west side of Road 15, approximately 548 feet south of its intersection with Avenue 17 (16800 Road 15), Madera

Madera County, California, is located in the central portion of California's Sacramento/San Joaquin Valley. Located in the center of the state, Madera County comprises 2,147 square miles. Elevations above mean sea level (msl) range from less than 180 feet msl in the western portion of the county to over 13,000 feet msl along the crest of the Sierra Nevada Mountains.

The applicant is requesting to amend Conditional Use Permit #2007-030 to allow for construction of a dairy digester and then truck resultant biogas to an injector site on an existing dairy.

ENVIRONMENTAL IMPACT:

No adverse environmental impact is anticipated from this project. The following mitigation measures are included to avoid any potential impacts.

BASIS FOR NEGATIVE DECLARATION:

See attached

Madera County Environmental Committee

A copy of the negative declaration and all supporting documentation is available for review at the Madera County Planning Department, 200 West Fourth Street, Ste. #3100, Madera, California.

DATED:

October 5, 2020

FILED:

PROJECT APPROVED:

MITIGATION MONITORING REPORT

MND # 2020-13

2	Misitority M	M	,	: : : : : : : : : : : : : : : : : : :	Action Indicating		Verification o	Verification of Compliance	
	mingaion measare	Phase	Agency	Agency		Initials	Date	Remarks	
Aesthetics	S								
	All lighting associated with this project shall be hooded and directed away from neighboring parcels.	Construction and Planning and operations building		Planning					
Agricultu	Agricultural Resources								
Air Quality	· A								
	no idling of vehicles for more than 10 minutes								
	maintain all equipment so as to prevent biogas leaks								
Biologica	Biological Resources						•		
Cultural R	Cultural Resources						-		
5	-						_		
	In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire project area, all work in the vicinity of the find shall halt until a qualified archaeologist can assess the discovery. The District shall implement all recommendations of the archaeologist necessary to avoid or reduce to a less than significant level potential impacts to cultural resource. Appropriate actions may include a Data Recovery								
	Plan or preservation in place.								

					Action Indicating		Verification	Verification of Compliance
No	Mitigation Measure	Monitoring	Enforcement	Monitoring	Compliance			
		Phase	Agency	Agency		Initials	Date	Remarks
	If human remains are uncovered, or in any other case when human remains are discovered during construction, the Madera County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or							
	Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC would then identify the Most iskely December who would determine the manner is which iskely December who would determine the manner is which							
	the remains are treated.							
Geology and Soils	and Soils							
	L							
Greenno	Greennouse Gas Emissions							
Hazards a	Hazards and Hazardous Materials							
Hydrolog	Hydrology and Water Quality							
001	Series Discussion							
Lalid Osc								
Mineral R	Mineral Resources							
Noise								
Populatio	Population and Housing							

No.	Mitigation Measure	Monitorina	Fnforcement		Action Indicating Compliance		Verification	Verification of Compliance
		Phase	Agency	Agency		Initials	Date	Remarks
Public Services	rvices							
Recreation	u							
Transport	Transportation and Traffic							
Utilities an	Utilities and Service Systems							
Tribal Cul	Tribal Cultural Resources							
Energy								
Wildfire								