



Community and Economic Development Planning Division

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PLANNING COMMISSION DATE: May 19, 2020

AGENDA ITEM: #3

CUP	#2020-003	To amend Conditional Use Permit #2016-008 to allow for gas scrubbing and connection to private pipeline
APN	#020-120-003 et. al.	Applicant: Biorem Energy Owner: Vlot, Case
CEQA	MND #2020-04	Mitigated Negative Declaration

REQUEST:

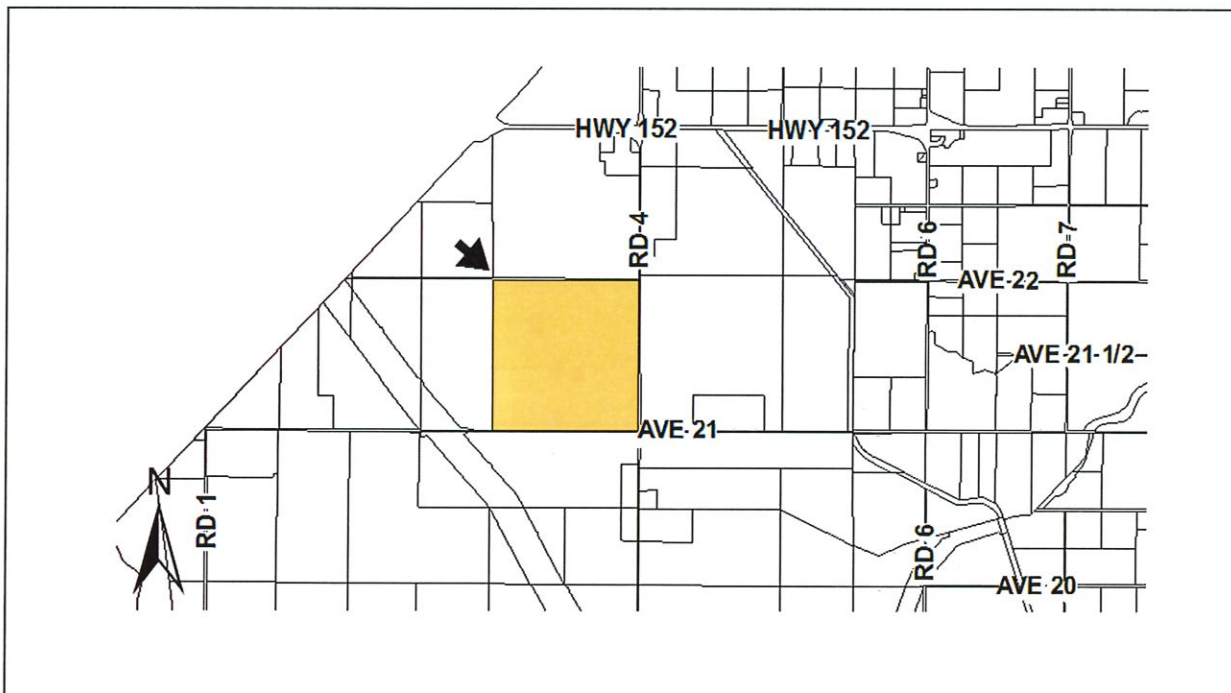
The applicant is requesting a Conditional Use Permit to amend an existing Conditional Use Permit to connect to private pipeline.

LOCATION:

The subject property is located on the northwest corner of the intersection of Avenue 21 and Road 4 (3197 Avenue 21), Chowchilla.

ENVIRONMENTAL ASSESSMENT:

A Mitigated Negative Declaration (MND #2020-04) (Exhibit P) has been prepared and is subject to approval by the Planning Commission.



RECOMMENDATION: Staff recommends approval of CUP #2020-003, Mitigated Negative Declaration #2020-04 and associated Mitigation Monitoring Program.

GENERAL PLAN DESIGNATION (Exhibit A):

SITE: AE (Agricultural Exclusive) Designation

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

SURROUNDING: Agricultural

SIZE OF PROPERTY: 647.63 acrfes

ACCESS (Exhibit A): Access to the site is via Road 4

BACKGROUND AND PRIOR ACTIONS:

Two zoning permits have been previously approved on parcels associated with the dairy. In July of 1991, Zoning Permit #91-50 was approved to allow for an exploratory gas well. In June of 1992, Zoning Permit #92-59 was approved to also allow for an exploratory gas well. No record of a conditional use permit has been found which would indicate that either of these exploratory wells were retained and operated as producing gas wells.

Conditional Use Permit #99-06 was approved on May 4, 1999 to allow for an 18,760 head custom heifer, 2,800 head dairy and 575 head support stock facility. Under the same project, the applicant also requested a zoning permit (ZP #99-23) and two variances (VA #99-04 and VA #99-05) for three additional single family residences on the project site for dairy employees.

Conditional Use Permit #2011-005 was approved on July 5, 2011 to expand the dairy herd size to 6,000 milking cows and 900 dry cows, and to allow the construction of a freestall to accommodate the increase in herd size.

Conditional Use Permit #2016-008 was approved on August 2, 2016 to allow for an anaerobic digester on an existing dairy.

PROJECT DESCRIPTION:

This is a request to amend Conditional Use Permit #2016-008 to allow an existing permitted dairy digester to connect to a scrubbing mechanism and then to a private pipeline that will send the resulting biogas to a point where it will be sold to the PG&E infrastructure for energy production.

ORDINANCES/POLICIES:

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

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

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

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

Madera County Dairy Standards outlines facility operations pursuant to new and expanding dairies.

ANALYSIS:

This is a request to amend Conditional Use Permit #2016-008 to allow an existing permitted dairy digester to connect to a scrubbing mechanism and then to a private pipeline that will send the resulting biogas to a point where it will be sold to the PG&E infrastructure for energy production.

The parcel is zoned ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District and has a general plan designation of AE (Agricultural Exclusive). Surrounding parcels are similarly zoned and have similar general plan designations. The ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District allows for agricultural uses and single family residences by right, as well as dairies with a Conditional Use Permit. While the specific use, a dairy digester, is considered an expected component of a dairy, back in 2016 Staff considered it an expansion and thus required the CUP. At the time of the original CUP, the resultant energy produced from the system was going to be used to offset energy use on the dairy. The applicant wishes to connect to a private pipeline system to send the resultant biogas to a PG&E infrastructure point to see.

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.

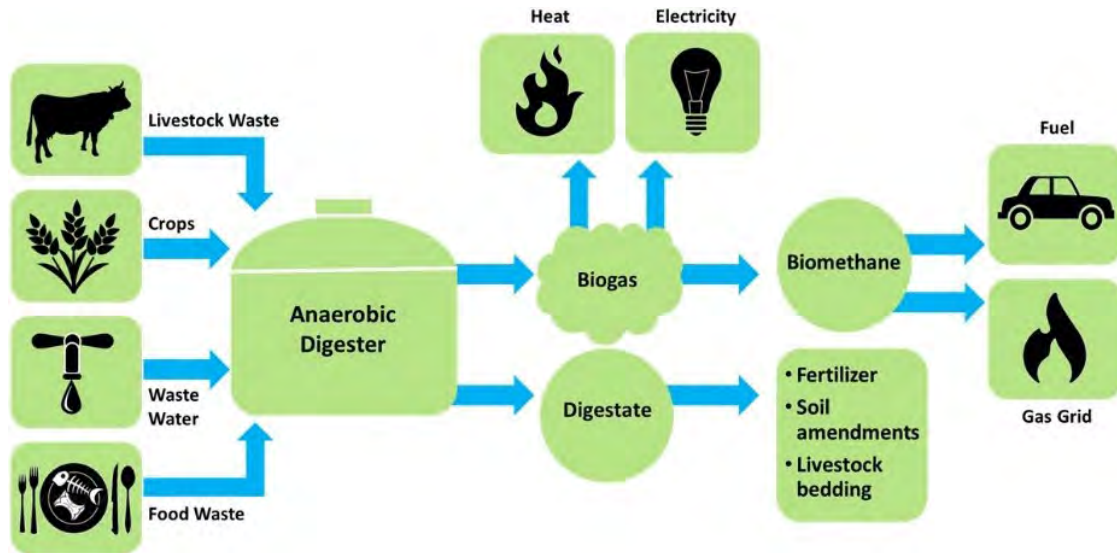
The Williamson Act (officially the California Land Conservation Act of 1965) is a California Law that provides relief of property tax to owners of farmland and open-space land in exchange for a ten-year agreement that the land will not be developed or otherwise converted to another use. The parcel in question is in the Williamson Act, however the requested activity will not interfere with any of the provisions of the Williamson Act.

According to the Madera County Transportation Commission (MCTC), the traffic counts for the area range from 142 north bound to 114 south bound vehicles along Road 4 north of its' intersection with Avenue 18 ½, which is the closest intersection to this project site for which there are traffic counts for 2018. The project anticipates generating 7 cars and 10 trucks per day between 8am and 5pm during the period of construction. Post construction, it is anticipated that one maintenance vehicle directly related to the digester system will come on site only as needed for mechanical issues. Customers who purchase the fertilizer byproduct of the system typically will not visit the site. The applicant anticipates an occasional visit as needed by customers, of which will only last about an hour. There will be no change in traffic patterns or customer visits as they relate to the actual dairy operations.

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 proposed project in this case will extend from the existing digester through a pipeline system to a collection point to provide biogas for PG&E to produce electricity for off-site infrastructure.

A part of the Biorem System is a “water conservation” piece. The resultant wastewater is repurposed for dairy flush operations and “purified” for re-use on the dairy for Cistern replenishment and milking parlor “wash down.” Current water consumption will be reduced by approximately 400,000 gallons per day or 146 million gallons per year with an eventual anticipated additional 350,000 gallons per day or 127.75 million gallons per year for in future years.

The project was circulated to internal departments as well as the County Sheriff, California Regional Water Quality Control, State Water Resources Control Board, and the San Joaquin Valley Air Pollution Control Board.

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 comments were received in return.

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 dairies with a Conditional Use Permit. As the applicant has an approved Conditional Use Permit for the origination of the dairy, and an amended Conditional Use Permit to allow for the expansion of herd size of the dairy, the spirit and intent of the zoning ordinance has not been violated. The General Plan Designation of AE (Agricultural Exclusive) does allow for agricultural uses such as dairies. The conditions of approval and mitigation measures from the previous Conditional Use Permits remain in effect and are unchanged. In all technicalities, the digester can be seen as a component of the dairy facility.
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 proposed project is also seen as beneficial as it is designed to reduce greenhouse gas emissions and potentially the odors associated with a typical dairy, so that any potentially existing health issues will be even further reduced as a result of the project. As this project does not affect the overall operations of the facility, neither existing Conditional Use Permits that allow for the dairy to operate are altered in any way and their conditions of approval remain the same.
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. While not the primary focus of the project, it would have a reducing impact of greenhouse gas emissions from the facility in the long run. No hazardous materials are being generated. There is the potential of reduction of odors as a result of the project.

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. This project is seen as a positive for the dairy as it will help reduce greenhouse gas emissions, potentially reduce odors in the immediate vicinity, and help generate electricity for the operations. While there are residences in the area, there are no major developments in the vicinity, and as designed the biogas system will blend in with the rest of the dairy facility.

WILLIAMSON ACT:

The property as a whole 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 #2020-003, Mitigated Negative Declaration (MND #2020-04) 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, Dust Control Management Plan
14. Exhibit I, Odor Control Management Plan
15. Exhibit J, Pest Management Plan
16. Exhibit K, Environmental Health Comments

CUP #2020-003
STAFF REPORT

May 19, 2020

17. Exhibit L, Public Works Comments
18. Exhibit M, Picayune Rancheria of Chukchansi Indians
19. Exhibit N, Sheriff's Comments
20. Exhibit O, Initial Study
21. Exhibit P, Mitigated Negative Declaration

CONDITIONS OF APPROVAL

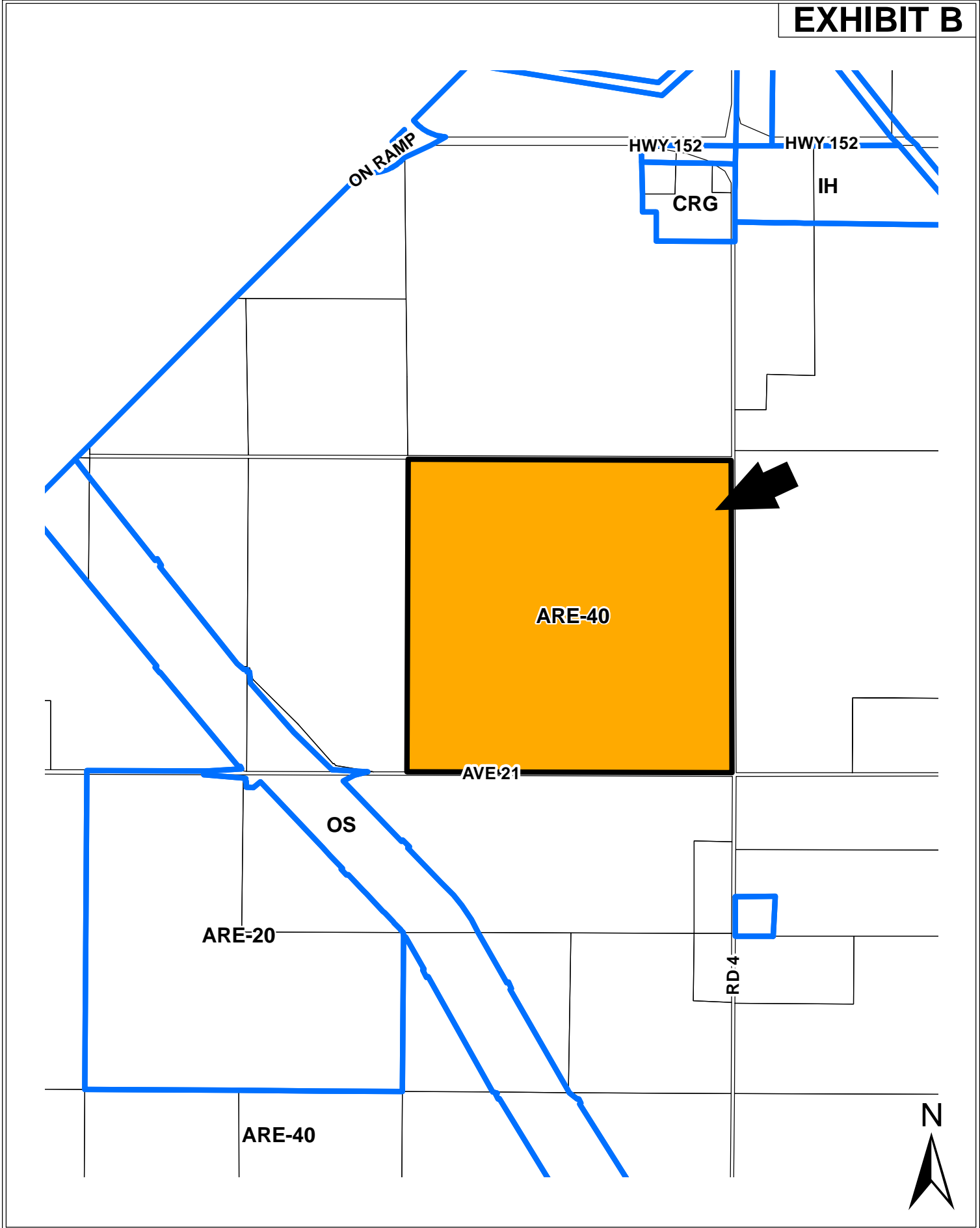
PROJECT NAME: CUP #2020-003 - Vlot
PROJECT LOCATION: on the northwest corner of Avenue 21 and Road 4 (3197 Avenue 21)
 Chowchilla
PROJECT DESCRIPTION: to amend CUP #2016-008 to allow expansion of digester facility

APPLICANT: Biorem Energy
CONTACT PERSON/TELEPHONE NUMBER: 208-233-2515

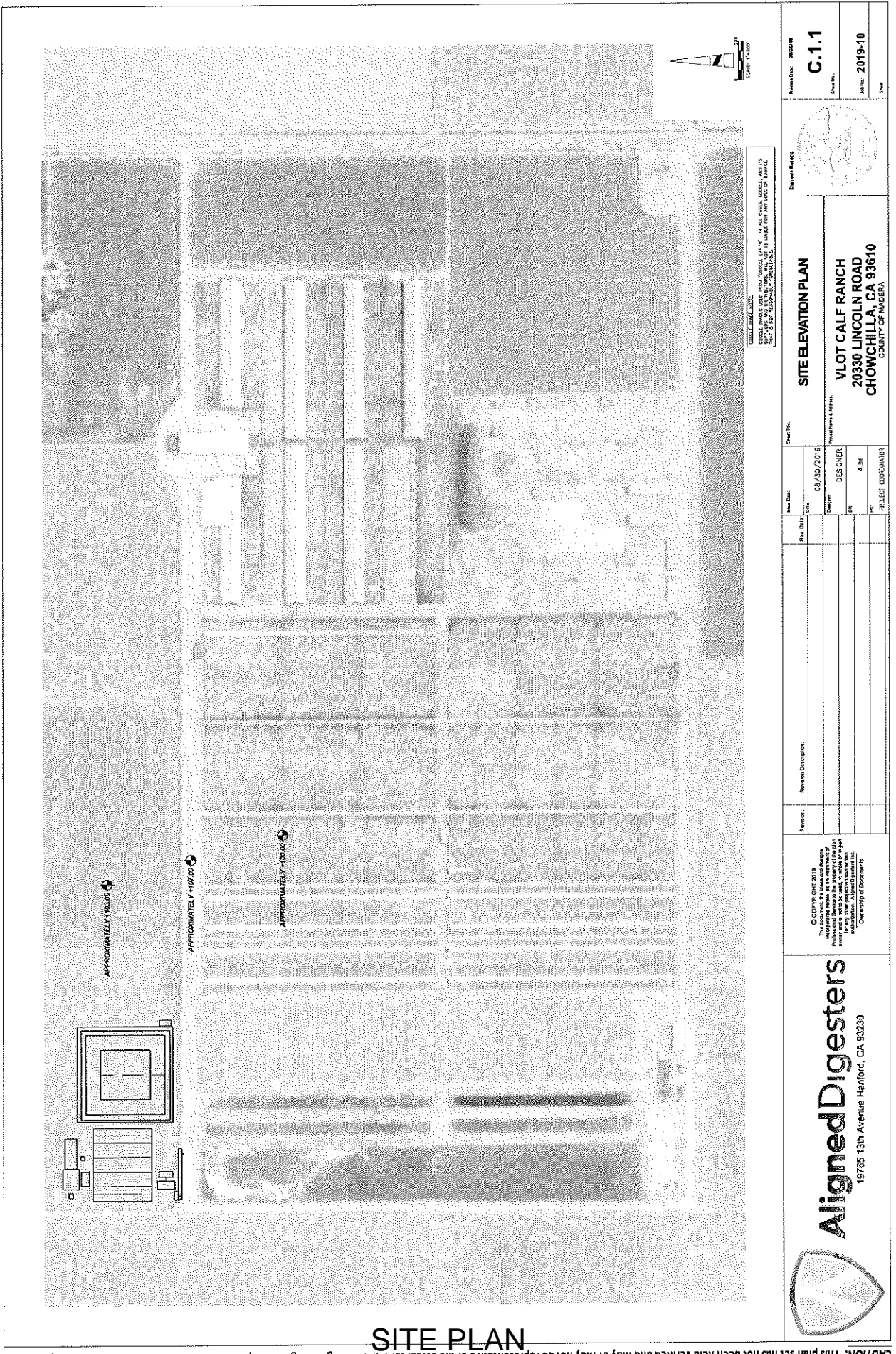
No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
Environmental Health					
1	The facility must comply with their Report of Waste Discharge (RWD) requirements under the Regional Water Quality Control Board (RWQCB).	Env. Hlth			
2	The facility must comply with their San Joaquin Valley Air Pollution Control Board (SJVAPCD) permit	Env. Hlth			
3	The facility must comply with Cal Recycle permit requirements for an Anaerobic Digester	Env Hlth			
4	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 approved 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.	Env. Hth			
5	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 Plan 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.	Env. Hlth			
6	If your facility handles/stores any hazardous materials on-site or generates hazardous waste you may be subject to permitting requirements through 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.caleta.ca.gov	Env. Hlth			

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
9	A parcel associated with this project is adjacent to Alview School on Road 4 south of Avenue 21. In no way shall the use of this property (including, but not limited to, the application of herbicides, pesticides, and dairy manure) put the student population in danger or harm by such actions.				
10	No development or operation(s) of the dairy facility shall occur within 100' (one hundred feet) of Ash Slough or the Eastside Bypass or any of their tributaries.				
11	Applicant shall not construct, repair or otherwise alter any levee in the area of the project site so as to create increased flooding upstream of the project site.				
12	In no case shall enhanced levees constrain sheet flows upstream of the operations.				
13	Applicant shall implement/maintain appropriate vector control measures consistent with industry practices and Madera County Dairy Standards.				
14	Applicant shall implement/maintain appropriate odor control procedures consistent with industry practices and Madera County Dairy Standards.				
15	Applicant shall continue to adhere to all current permits issued by all federal, state and local agencies pursuant to the operation of this facility and its' related parcels.				
16	Operator shall maintain facility per current Madera County Dairy Operational Standards.				
17	All parking and circulation areas within the project area shall be surfaced with gravel, crushed rock, or other surface material as approved by the Planning Department and maintained to control dust.				
18	Portions of the dairy operations are located within an Airport/Airspace Overlay (AAO) District due to proximity of a known airstrip. As a result, the facility must adhere to the following: 18.78.010(A)(1)(a) no uses creating electrical or electronic interference with communication or guidance devices used by aircraft or ground control is permitted to be built or used. 18.78.010(A)(1)(b) no uses that would create glare, smoke, dust or similar factors interfering with aircraft operation to and from runways and taxiways of the airport are permitted as a part of the dairy facility operations.				
Public Works - Engineering					
	none				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
Public Works - Roads					
1	Comments that were provided by the Public Works Department on CUP#2016-008 located at 3197 Avenue 21, Chowchilla, CA 93610 remain applicable to this amendment. The Department has the following conditions of approval:				
2	At any time during the operations of the proposed or existing development, at the County's discretion and depending on the condition of the roadways at the time, the County reserves the rights to require the applicant to repair and provide any necessary improvements to the existing roadways if there are damages to the existing pavement caused by the operations from the proposed the development.				
3	Prior to any construction where such construction is proposed within an existing County right-of-way, the applicant is required to apply for an Encroachment Permit from the Public Works Department. Said permit must be approved prior to commencing the work.				
4	At the time of applying for the building permits, if any grading is to occur, the applicant is required to submit a grading, drainage, and erosion control plans to the Public Works Department for review. Such improvement plans shall be prepared by a licensed professional.				
5	If access approaches or road improvements are to be added to the proposed development, the applicant is required to provide such improvement plans to the Public Works Department for review.				
6	If there are existing drainage facilities and storage pond existed on site, the developer is required to verify that the existing system and its onsite storage still have the adequate capacity and fully functional for the proposed development.				
7	All National Pollution Discharge Elimination System (NPDES) storm water regulations and standards shall be met. It is possible that the quality of storm water may be affected by pollutants. The applicant shall mitigate any impacts associated with storm water contamination caused by this project. A Storm Water Pollution Prevention Plan (SWPPP) is required for all projects 1-acre or more of site disturbance.				
8	All stabilized construction on and off site access locations shall be constructed per the latest edition of the California Stormwater Quality Association (CASQA) details to effectively prevent tracking of sediment onto paved areas. If applicable, all BMPs to be inspected weekly and before and after each rain event. Repair or replace as necessary. The contractor shall abide all of the laws, ordinances, and regulations associated with the NPDES and the Clean Water Act.				

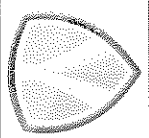


ZONING MAP



CAUTION: This plan set has not been field verified and may or may not be representative of the actual condition. Design changes and updates will occur before construction can proceed.

SITE PLAN



Aligned Digesters
 19765 13th Avenue Hanford, CA 93230

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 Ownership of Documents

Remarks:

Revision Description:

Issue Date: 06/13/2019

Drawn By: ALUM

Project Name & Address:
VLOT CALF RANCH
20330 LINCOLN ROAD
CHOWCHILLA, CA 93610
 COUNTY OF MADERA

Design Number:

Project No.: 2019-10

Date:

SCALE: 1"=20'
 NORTH
 0° 00' 00" N
 90° 00' 00" E
 180° 00' 00" S
 270° 00' 00" W

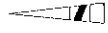


C.1.1

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SCALE: AS SHOWN
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Revision:

Rev.	Description	Date
01	DESIGNER	08/20/2019
02	PROJECT MANAGER	
03	PROJECT MANAGER	

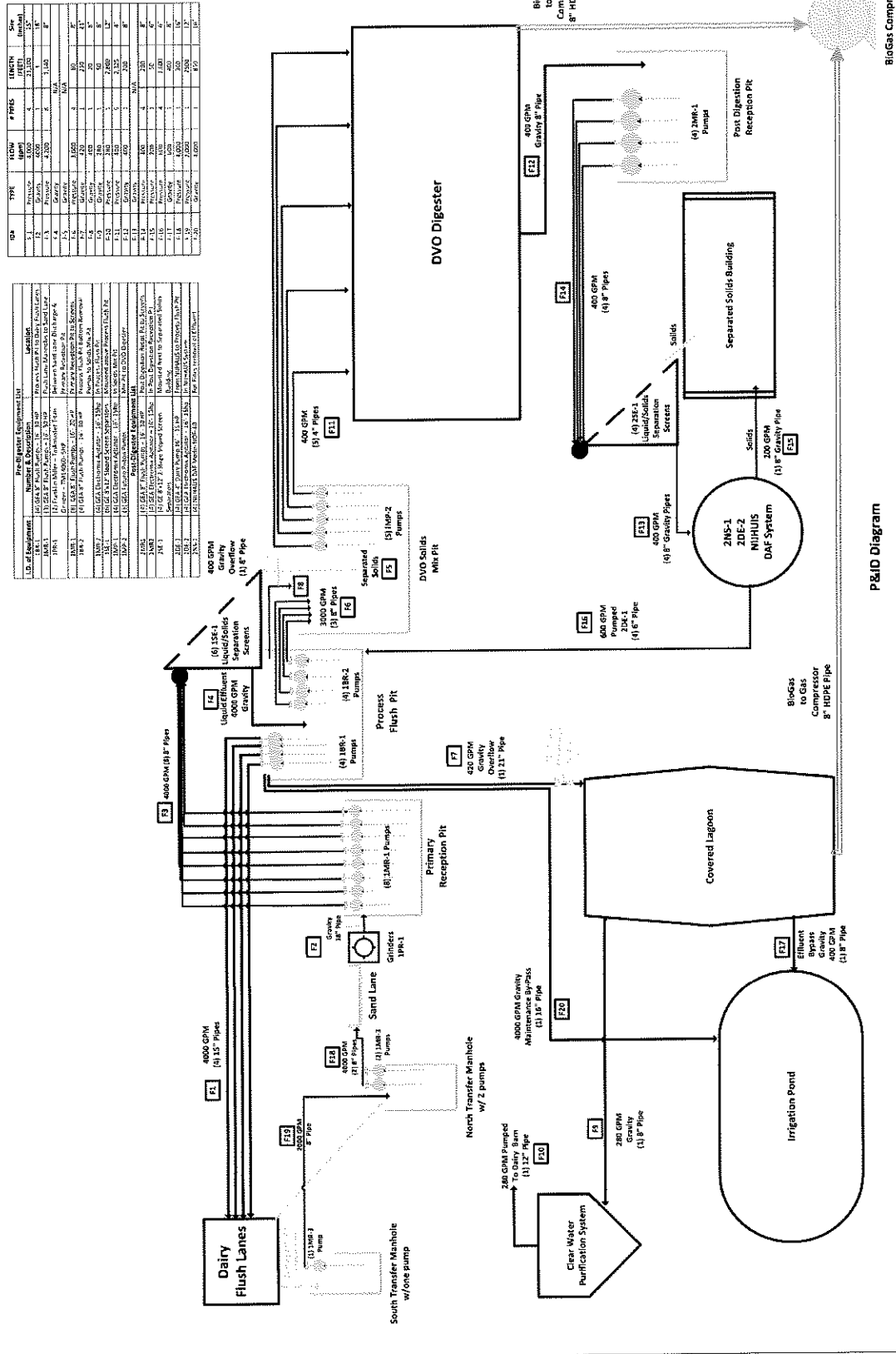
Project Name: VLOT Calf Ranch
 20330 LINCOLN ROAD
 CHOWCHILLA, CA 93610
 COUNTY OF MADERA

Scale: A.3.0

Sheet No.: 2019-10

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PROCESS FLOW CHART



ID of Resignation	Number of Resignation	Location
100-1	1	Primary Reception Pit
100-2	1	Process Flush Pit
100-3	1	Liquid/Solids Separation Screen
100-4	1	DVO Digester
100-5	1	Biogas to Gas Compressor
100-6	1	Biogas Compressor
100-7	1	Biogas to Emergency Flare
100-8	1	200 GPM (14 1/2" Pipes) DAF System
100-9	1	Separated Solids Building
100-10	1	Post Digestion Reception Pit
100-11	1	Biogas to Gas Compressor
100-12	1	Biogas Compressor
100-13	1	Biogas to Emergency Flare
100-14	1	Covered Lagoon
100-15	1	Irrigation Pond
100-16	1	Clear Water Purification System
100-17	1	Sand Lane
100-18	1	Process Flush Pit
100-19	1	Liquid/Solids Separation Screen
100-20	1	DVO Solids Mix Pit
100-21	1	Biogas to Gas Compressor
100-22	1	Biogas Compressor
100-23	1	Biogas to Emergency Flare

ID of Resignation	Number of Resignation	Location
100-1	1	Primary Reception Pit
100-2	1	Process Flush Pit
100-3	1	Liquid/Solids Separation Screen
100-4	1	DVO Digester
100-5	1	Biogas to Gas Compressor
100-6	1	Biogas Compressor
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100-12	1	Biogas Compressor
100-13	1	Biogas to Emergency Flare
100-14	1	Covered Lagoon
100-15	1	Irrigation Pond
100-16	1	Clear Water Purification System
100-17	1	Sand Lane
100-18	1	Process Flush Pit
100-19	1	Liquid/Solids Separation Screen
100-20	1	DVO Solids Mix Pit
100-21	1	Biogas to Gas Compressor
100-22	1	Biogas Compressor
100-23	1	Biogas to Emergency Flare

P & I Diagram

Revision: 08/20/2019

Project Name: VLOT CALF RANCH
20330 LINCOLN ROAD
CHOWCHILLA, CA 93610
COUNTY OF INDIANA

Designer: A-3
Project Coordinator: A-3

Aligned Digesters
18785 13th Avenue Hanford, CA 93230

Scale: 1" = 10'

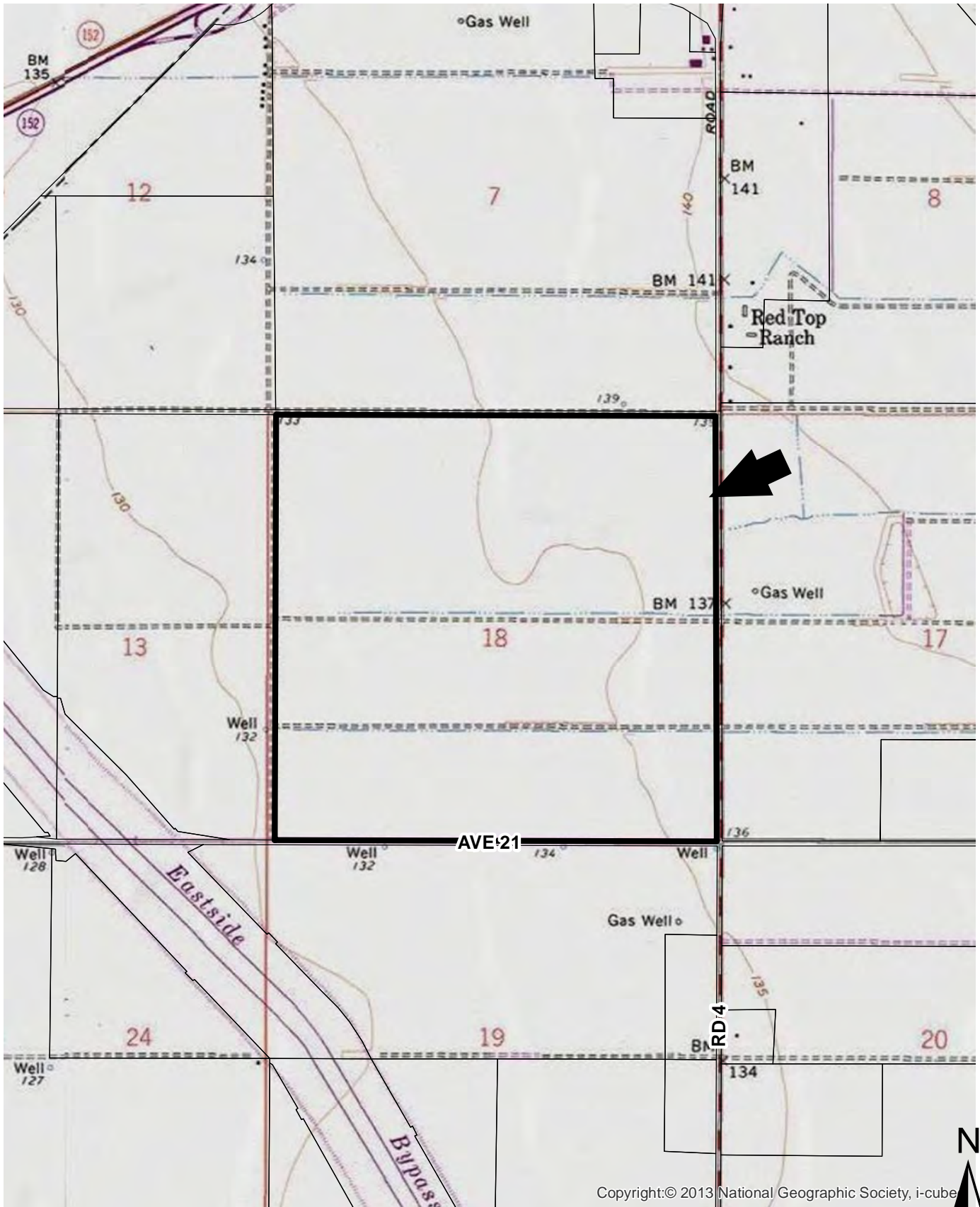
Sheet No: F.1.2

Project No: 2019-10



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

AERIAL MAP



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TOPOGRAPHICAL MAP

Operational / Environmental Statement Checklist **Amendment to 2016-008****1. Please provide the following information:**

Assessor's parcel Number: APN #20-090-002, -003; 020-120-003, -004, -011; 020-150-010; 020-160-015; 020-180-005; 020-181-002; 020-210-003

Applicant's Name: Vlot Calf Ranch – Case Vlot

Address: 20330 Road 4, Chowchilla, CA 93610

Phone Number: 209-974-4300

2. Describe the nature of your proposal / Operation.

The purpose of the Biorem Operation is to include an anaerobic digester operation and management system at the Vlot Calf Ranch. The Biorem system will transfer current effluent waste stream ODM into a DVO anaerobic Digester to create biogas which is scrubbed and then deposited into the CEE private pipeline gathering system on Avenue 21. California Energy Exchange (CEE) owns the Unocal basin and injects directly into PG&E's infrastructure. Our Biorem system will upgrade the biogas produced at the operation into Rule 21 PG&E quality natural gas. The system runs on Combined Heat Power (CHP) natural gas generators which convert the utility natural gas into electricity to supply the system's parasitic load (electricity to operate the anaerobic digester system) requirements. After energy production the resultant effluent solids are separated to create an organic pathogen free digestate (fertilizer) which Biorem will sell to its customers. The remaining "dirty water" is transferred to a covered flush lagoon to capture the remaining biogas potential of the manure effluent where the dirty water will be used either in flush for the dairy or purified for re-use for the wash-down and operation cistern applications (cooling towers) on the dairy.

3. What is the existing use of the property?

The property currently supports the dairy operations of the Vlot Calf Ranch as described in CUP 99-06 and the amended CUP 2011-005 and 2016-008.

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?

The byproducts of the operation are the same although they are repurposed and treated to create a value. Currently GHG's (Green House Gases) are emitted into the air via the open top pond systems in place. Land application of the manure waste stream occurs at various times which in some cases have been known to increase soil salts on land and affect leaching characteristics of the soil as well as nutrient uptake into crops. The Biorem System converts the biogas into energy with the remaining exhaust filtered through tier 4 exhaust systems and the exhaust temperature used to heat thermal systems used for anaerobic digestion. The manure waste is heated into an organic pathogen free digestate which has value to Biorem's customers in the Bakersfield area. By eliminating the GHG emissions, via closed and covered ponds the air quality is improved over current conditions significantly. By greatly reducing land application and changing the characteristics of the manure to an organic digestate (fertilizer) the surrounding soil conditions are greatly improved. By re-using the existing water consumed by

the Dairy for its operations the water usage of the Dairy is significantly reduced. Because the Biorem System is closed, there is a tremendous reduction in odors associated with Dairy operations. Overall, the air, land and water conditions are improved while providing natural gas to CEE and ultimately PG&E for use in the trucking industry.

5. What are the proposed operational time limits?

The system will operate with similar time limits as the existing waste management system. Current hours of operation are around the clock without seasonality. The system will operate 24/7/365.

6. How many customers or visitors are expected?

Biorem customers will be less than 20 and most will never visit the site. In the event a site visit is required, it will be scheduled and would require less than one hour to view the system and its operational capacity.

7. How many employees will be there?

Biorem will have a floating maintenance person to attend to any mechanical issues. The system is completely automated and will signal the maintenance tech in the event of a mechanical malfunction. All equipment is new and the least warranted item has a 5-Yr operational guarantee. Vlot Calf Ranch will not require any additional employees for system operations. In the future there will be contractor employees for construction for a maximum of 9 months. The employees will be employed by the general contractor and will more than likely be sourced primarily from the immediate surrounding area creating approximately 35 additional construction jobs that do not require any special expertise. General contractor jobs will require such tasks as welding plastic, excavation, concrete; installations, plumbing and electrical work.

8. What equipment, materials, or supplies will be used and how will they be stored? If appropriate provide pictures or brochures.

Material for this project include pumps, plastic liners, PVC and CPVC plumbing; three CHP cogens, biogas scrubbers, two boilers; and 5 large heat exchangers. Materials will be stored onsite during construction by the general contractor. In order to alleviate jobsite congestion, and MRP detail will order differing lead time items to allow for a timely receipt of material and installation. The equipment requirements would be similar to any construction job with poly welding tools, construction tools, electrical wire and cabinets, dirt movers and graders, etc. A complete list of materials is available upon request if needed or desired.

9. Will there be any service and delivery vehicles?

There will be service and delivery vehicles during construction only. There will be a single maintenance vehicle if or when a mechanical issue requires attention.

**10. Number of parking spaces for employees , customers, and service/delivery vehicles.
Type of surfacing on parking area.**

Construction will be out on dry land in the back (to the north) of the existing facility. There is an existing access road on the property which has been surfaced with crushed asphalt and no additional parking spaces will be required.

11. How will access be provided to the property / project?

Vehicles will access the construction site via an existing access road on the property. All or most vehicles will use highway 152 which runs perpendicular to highway 5 and 99. The vehicles will turn off highway 152 and travel on Road 4 or Avenue 21.

12. Estimate the number and type (i.e. cars or trucks) of vehicular trips per day that will be generated by the proposed development.

This is difficult to estimate. Based on experience we assume some carpooling will occur. During construction we calculate that approximately 7 cars and 10 trucks (pickup style) will travel on Road 4 and highway 152 at various times. Tractor trucks (less than one per day on average) will haul equipment and materials to the jobsite. We assume travel to the site before 8am, travel home at 5pm on most days from the site, and possible lunch travel for those who do not bring a lunch to the site. Red Top Café is a restaurant down the street on Road 4 which will more than likely be their destination. If not, either Chowchilla or Los Banos will be their destination(s) during lunch hours.

13. Describe any additional proposed advertising, including size, appearance and placement.

None

14. Will existing buildings be used or will new buildings be constructed? Indicate which building(s) or portion(s) of will be utilized and described the type of construction materials, height, color, etc. Provide floor plan and elevations, if applicable.

No existing buildings will be used and we will build one pole barn. Equipment will be mounted to a cement slab at ground level.

15. Is there any landscape or fencing proposed? Describe the type and location.

None

16. What are the surrounding land uses to the north, south, east and west property boundaries?

The surrounding land is used for crops to support the dairy operations.

17. Will this operation or equipment used, generate noise above other existing parcels in the area?

The only "new noise" would be in the form of the CHP Cogens. We included the Cogen information in the past CUP (2016-008) for your perusal.

18. On a daily basis or annual basis, estimate how much water will be used by the proposed development, and how is the water to be supplied to the proposed development?

A part of the Biorem System is a "water conservation" piece. The resultant waste water is repurposed for Dairy flush operations and "purified" for re-use on the dairy for Cistern replenishment and milking parlor "wash down". Current water consumption will be reduced by approximately 400,000 gallons per day or 146 million gallons per year during phase I and an additional ~350,000 gallons per day or 127.75 million gallons per year during phase II. In total, after phase II the dairy operation will be reduced by ~750,000 gallons per day or 273.75 million gallons per year.

19. On a daily or weekly basis, how much wastewater will be generated by the proposed project and how will it be disposed of?

The waste water will be disposed of in the same manner it is today other than the waste water will be reduced by 400,000 gallons per day in Phase I.

20. On a daily or weekly basis, how much solids waste will be generated by the proposed project and how will it be disposed of?

The answers are the same as the previous CUP 2016-008. Estimates are that approximately 18 pounds per cow of manure solids are generated each day. Approximately 5 pounds per cow is used for "bedding" and the remaining 13 pounds less 6.1# of biogas created and turned into renewable natural gas leaving a balance of 6.9 pounds in the new system will be converted into organic pathogen free digestate (fertilizer) and sold outside the area to such locations as Bakersfield thereby enhancing soil health and reducing potential groundwater risk due to excess soil salt application(s). The 5 pounds utilized for bedding will be pathogen free promoting overall animal health and reducing the risk of pathogenic infection.

21. Will there be any grading? Tree Removal? (Please state the purpose, i.e. for building pads, roads, drainage, etc.)

There has been grading. There will not be any tree removal. The grading plan was developed to "upgrade" the existing manure management plan, improve animal health and if decided in the future allow for an expandable section of the dairy. The existing lagoons are excavated in accordance with the permitting requirements. It is our desire to build a "new" pond to the side of the existing pond, line the pond with three layers (two geomembrane sandwiching a geotextile mesh in the middle layer for groundwater and soil protection) and cover the pond to capture any potential greenhouse gas emissions. Once the pond is in operation, the existing pond effluent will be transferred into the new digestion system to in effect clean out the old ponds. Once they are cleaned out, the holes in the ground can be filled accomplishing two important goals. The first goal is that of the animal health. The calving operations are closest to the open lagoons. The greatest pathogenic risk occurs closest to the calves. Moving the pond and covering it eliminates the potential exposure risk. By filling in the land we have effectively supplied an upgrade in the environmental protection barrier between manure effluent and the land, air and water. Because the pond is covered and sealed to capture biogas

it is necessary to have a slope. Attached are the drawings for the anaerobic digester and the covered pond which show the slope attachment, sealing of the liners and berm construction. All effluent is at or below ground level with a five (5) foot high bank on top for security purposes. Finally once the initial ponds are filled in the Vlot Calf Ranch would have a more simple expansion path if it is deemed desirable at a later date. The net gain is there will be a replacing of the existing ponds with newer and a better constructed closed digester and covered pond which are better for the environment and operations.

22. Are there any archeological or historical significant sites located on this property? If so, describe the and show the location on the site plan.

None

23. Locate and show all bodies of water on application plot plan or attached map.

None exist on this property.

24. Show all ravines, gullies, and natural drainage courses on the property on the plot plan.

Understood and done on the previous CUP 2016-008

25. Will hazardous materials or waste be produced as part of this project? If so, how will they be shipped or disposed of?

No

26. Will your proposal require use of any public services or facilities? (i.e. schools, parks, fire and police protection or special districts?)

No

27. How do you see this development impacting the surrounding area?

We see a large scale improvement of all three of the environmental components. Land, air and water.

28. How do you see this development impacting schools, parks, fire and police protection or special districts?

We do not see any impact.

29. If your proposal is for commercial or industrial development, please complete the following:

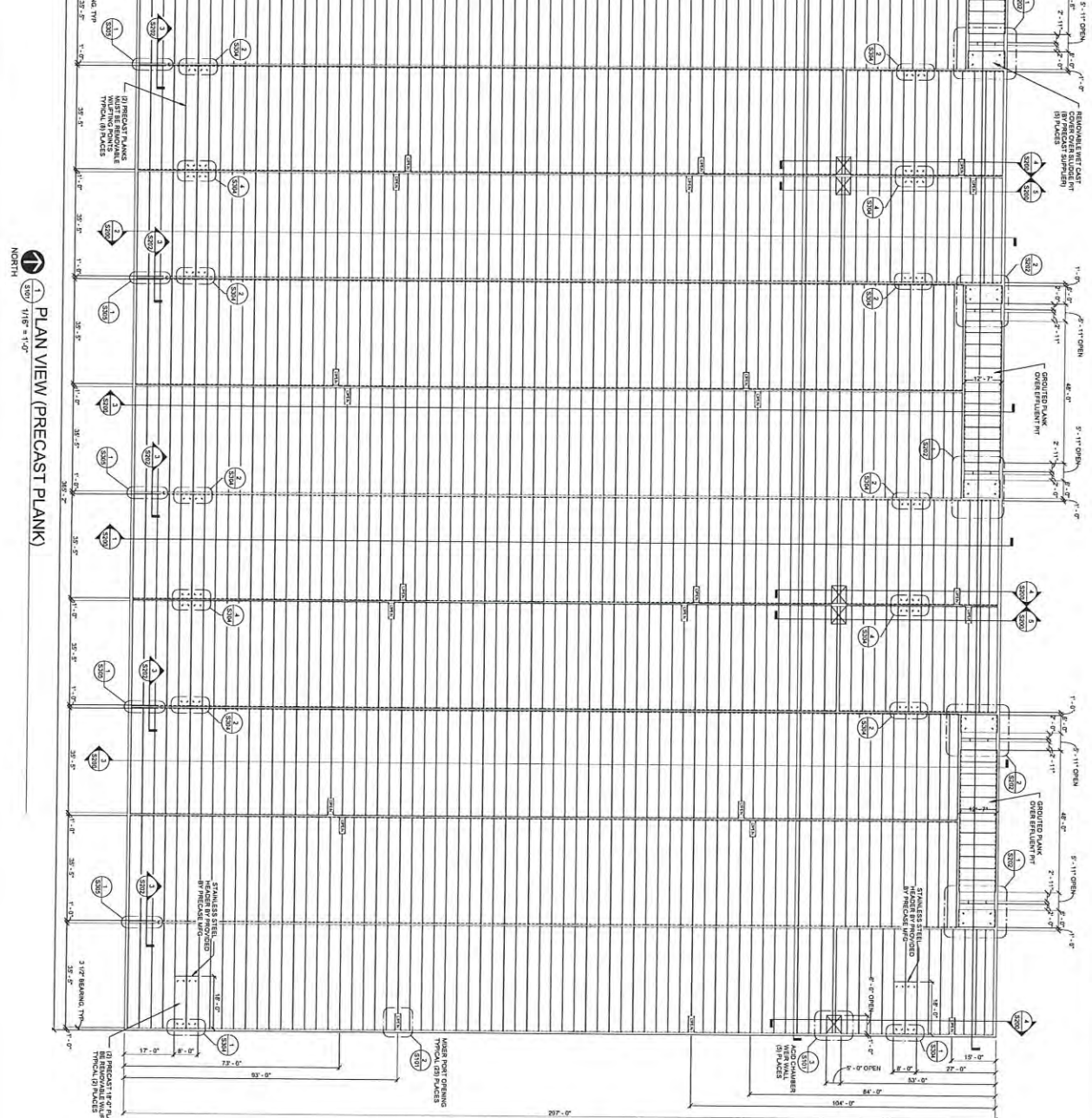
Proposed use: N/A

Square feet of building area: N/A

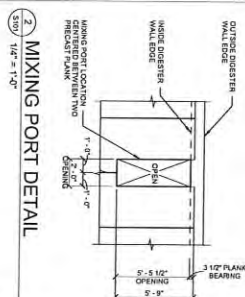
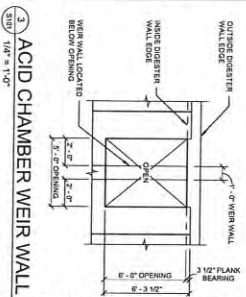
Total number of employees: N/A

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



1 PLAN VIEW (PRECAST PLANK)
 NORTH
 1/8\"/>



PRELIMINARY - NOT FOR CONSTRUCTION - STAMPED DRAWINGS TO FOLLOW

S101

NO.	DATE	DESCRIPTION
1	10/10/10	ISSUED FOR PERMIT
2	10/10/10	ISSUED FOR CONSTRUCTION

PROJECT: BIOREM ENERGY
 DRAWN BY: JAV
 CHECKED BY: JAV
 DATE: 10/10/10
 SCALE: AS SHOWN
 SHEET: S101 OF S101

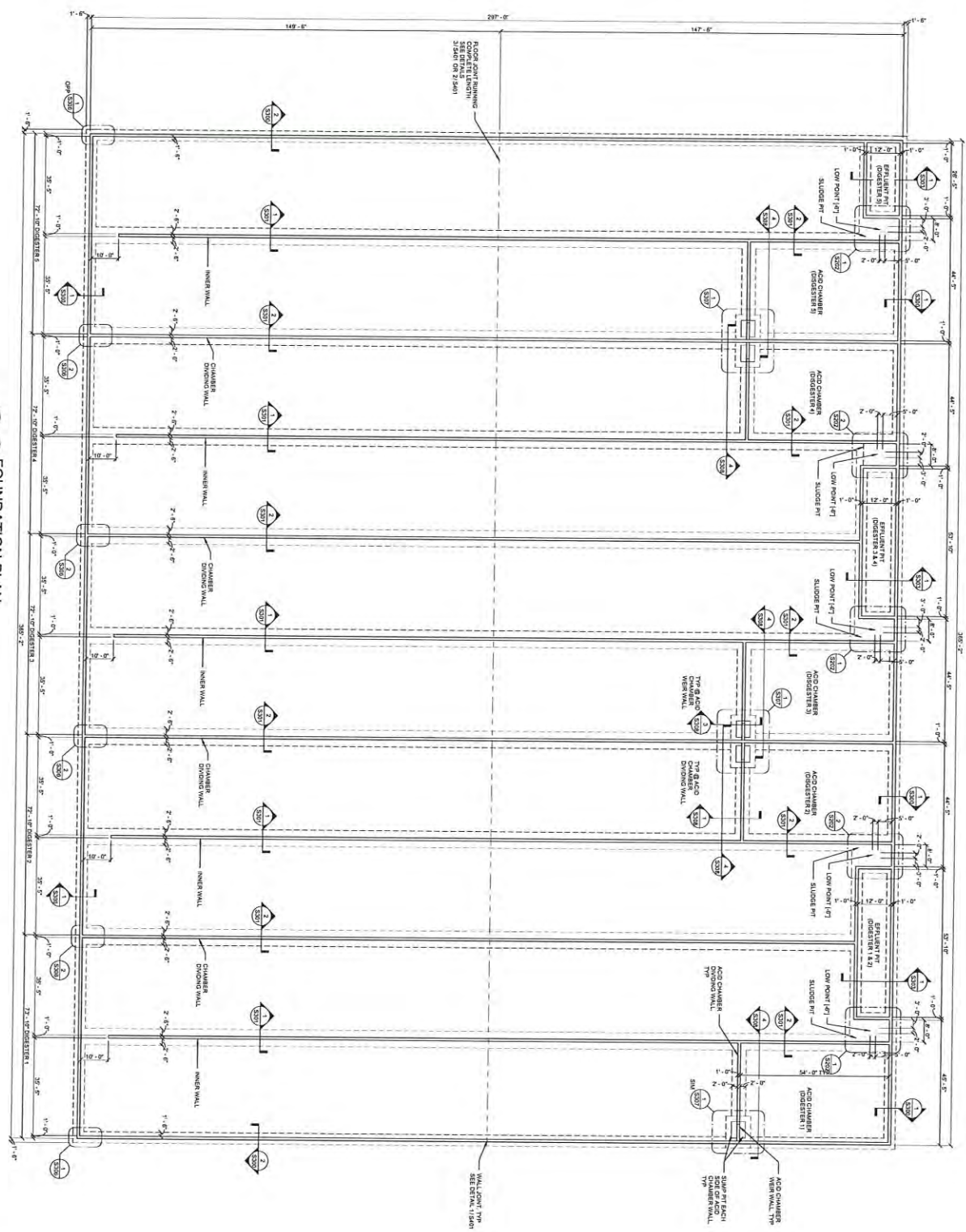
BIOREM ENERGY
VLOT BROTHERS DAIRY
ANAEROBIC DIGESTER
 20330 LINCOLN ROAD
 CHOWCILLA, CA 93610

DVO
 620 West Main Street
 P.O. Box 69, Chilton WI 53014
 Phone: 920-848-9797
 www.dvoinc.com

Larson Engineering, Inc.
 2801 E. Enterprise Avenue, Suite 200
 Appleton, WI 54913-8559
 Phone: 920.734.9567
 www.larsoneng.com

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FOUNDATION PLAN
 NORTH
 1/8" = 1'-0"



PRELIMINARY - NOT FOR CONSTRUCTION - STAMPED DRAWINGS TO FOLLOW

S100	Project: 20110711000
	Drawn By: JLF
Foundation Plan	Checked By: JLF

BIORE ENERGY
VLOT BROTHERS DAIRY
ANAEROBIC DIGESTER
 20330 LINCOLN ROAD
 CHOWCILLA, CA 93610

DVO
 820 West Main Street
 P.O. Box 60, Chilton WI 53014
 Phone: 920-843-9797
 www.dvoinc.com

Larson Engineering, Inc.
 2801 E. Enterprise Avenue, Suite 200
 Appleton, WI 54913-8559
 Phone: 920-734-5367
 www.larsoneng.com

Plot Dairy Dust Control Management Plan

Vlot Brothers Dairy
3197 Avenue 21
Chowchilla, CA 936510

Mitigation Measure AIR-1: Prepare and implement a dust control plan.

Measures included in the dust control plan could include, but are not limited to:

→Pre-activity. Pre-water the work site and phase work to reduce the amount of disturbed surface area at any one time.

→Active operations.

Apply water to dry areas during leveling, grading, trenching, and earth moving activities.

Construct and maintain wind barriers and apply water or dust suppressants to the disturbed surface areas.

Inactive operations, including after work hours, weekends, and holidays.

Apply water or dust suppressants on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.

Temporary stabilization of areas that remain unused for 7 days or more.

Restrict vehicular access and apply and maintain water or dust suppressants on all un-vegetated areas.

Establish vegetation on all previously disturbed areas.

Apply gravel and maintain gravel at all previously disturbed areas.

Apply water or dust suppressants to unpaved haul and access roads.

Post a speed limit of not more than 15 miles per hour, using signs at each entrance and again every 500 feet.

Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.

Windevents.

Water application equipment will apply water to control fugitive dust during wind events

unless unsafe to do so.

Outdoor construction activities that disturb the soil will cease whenever visible dust emission

cannot be effectively controlled.

Outdoor handling of bulk materials.

Water or dust suppressants will be applied when handling bulk materials.

Wind barriers with less than 50% porosity will be installed and maintained, and water

or dust suppressants will be applied.

Outdoor storage of bulk materials.

Water or dust suppressants will be applied to storage piles.

Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner

that prevents the cover from being removed by wind action.

Wind barriers with less than 50% porosity will be installed and maintained around the storage piles,

and water or dust suppressants will be applied.

A two or three-sided structure with less than 50% porosity that is at least as high as the storage piles will be used.

On-site transporting of bulk materials.

Vehicle speed will be limited on the worksite.

All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.

A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.

Haul trucks will be covered with a tarp or other suitable cover.

Off-site transporting of bulk materials.

The following practices will be performed:

The interior of emptied truck cargo compartment will be cleaned or covered before leaving the site.

Spillage or loss of bulk materials from holes or other openings in the cargo compartment's floor, sides, and tailgates will be prevented.

Water spray equipment will be used to sufficiently wet the materials.

Transported materials will be washed or screened to remove fines (PM10 or smaller).

Odor Control Management Plan

Odor control measures would consist of installation of covers on the Pre-treatment bioremediation lagoon, the digester tanks and the enclosure of the solids handling processes. Vent air would be evacuated with a blower and conveyed into the aerobic digestion system where odors would be removed biologically. Vlot Brothers Dairy currently operate open air lagoon systems consisting of two primary settling lagoons, two secondary settling lagoons and one tertiary settling lagoon. Odor reduction in these areas are intended to be considerable and significant when compared to current operations.

Criteria Pollutants

The federal and state governments have established ambient air quality standards for the following criteria pollutants: ozone, CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (both particulate matter smaller than 10 microns or less in diameter [PM₁₀] and particulate matter smaller than 2.5 microns or less in diameter [PM_{2.5}]), and lead. Ozone, NO₂, and particulate matter are generally considered to be regional pollutants, as these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, SO₂, lead, and particulate matter are considered to be local pollutants. Particulate matter is considered to be both a local and a regional pollutant. Toxic air contaminants (TAC) are also discussed below, although no state or federal ambient air quality standards exist for these pollutants. Brief descriptions of these pollutants are provided below.

Ozone

Ozone is a respiratory irritant that increases susceptibility to respiratory infections, and is a severe eye, nose, and throat irritant. It is also an oxidant that can cause substantial damage to vegetation and other materials. Ozone causes extensive damage to plants by leaf discoloration and cell damage. Ozone also attacks synthetic rubber, textiles, plants, and other materials. Ozone is primarily a summer air pollution problem. The ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x) are mainly emitted by mobile sources and by stationary combustion equipment.

Carbon Monoxide

Carbon monoxide is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. Carbon monoxide can cause

health problems such as fatigue, headache, confusion, dizziness, and even death. Motor vehicles are the dominant source of CO emissions in most areas. Data indicate that local CO concentrations do not approach the state standards; however, CO concentrations in the vicinity of congested intersections and freeways would be expected to be higher than those recorded at the monitoring station. CO concentrations are expected to continue to decline in the SJVAB because of existing controls and programs and the continued retirement of older, more polluting vehicles.

Inhalable Particulates

Inhalable particulates can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulates also reduce visibility and corrode materials.

Particulate emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

Toxic Air Contaminants

TACs are pollutants which may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases which lead to death. Although ambient air quality standards exist for criteria pollutants, no standards exist for TACs. For TACs that are known or suspected carcinogens, the California Air Resources Board (CARB) has consistently found that there are no levels or thresholds below which exposure is risk-free. The TAC of most concern with regards to the proposed project is biogas combustion exhaust particulate matter. Tier 4 exhaust systems are affixed to the CHP Cogeneration exhaust systems to comply with California Emissions Requirements and have been previously permitted in the San Joaquin Valley Air Pollution Control District as well as many others throughout the State of California.

Pest Management Plan

The generation and storage of manure, manure-water, animal feed and other organic materials at dairies present the possibility of increased vector activities as stated in the current Pest Management Plan for the Vlot Brothers Dairy. Mosquito and fly infestations can be observed at dairies particularly at manure separation pits and lagoons and poorly managed feed areas. Infestations will be eliminated around the covered lagoons and digestive tanks thereby lessening the overall vector activities. Ancillary benefits of a cleaner flush water will reduce infestations in the free stall areas and flush lanes although an exact reduction is not possible to calculate at this time. The current management plan analyzed the existing impacts in area and whether or not the incremental contribution of vectors from the dairy would result in a cumulatively significant impact. Conditions of approval and mitigation measures were placed on the Vlot Brothers Dairy to control situations conducive to vector generation. Those mitigations and conditions of approval lessened the impact to that of less than significant. As those conditions and controls will continue for the life of the dairy and the availability of infestation areas will be reduced comparative to current operating conditions, this digestion project will not alter the current controls and conditions

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

MEMORANDUM

TO: Robert Mansfield
FROM: Dexter Marr, Environmental Health Division
DATE: February 6, 2020
RE: Biorem Energy - Conditional Use Permit - Chowchilla (020-120-003-000)

Comments

TO: Planning Division
FROM: Environmental Health Division
DATE: February 6, 2020
RE: Conditional Use Permit (CUP) #2020-003, Biorem Energy – Chowchilla, APN: 020120003

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 through 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)

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.

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

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: February 14, 2020
TO: Robert Mansfield
FROM: Madera County Public Works
SUBJECT: Biorem Energy - Conditional Use Permit - Chowchilla (020-120-003-000)

Comments

Comments that were provided by the Public Works Department on CUP#2016-008 located at 3197 Avenue 21, Chowchilla, CA 93610 remain applicable to this amendment. The Department has the following conditions of approval:

At any time during the operations of the proposed or existing development, at the County's discretion and depending on the condition of the roadways at the time, the County reserves the rights to require the applicant to repair and provide any necessary improvements to the existing roadways if there are damages to the existing pavement caused by the operations from the proposed the development.

Prior to any construction where such construction is proposed within an existing County right-of-way, the applicant is required to apply for an Encroachment Permit from the Public Works Department. Said permit must be approved prior to commencing the work.

At the time of applying for the building permits, if any grading is to occur, the applicant is required to submit a grading, drainage, and erosion control plans to the Public Works Department for review. Such improvement plans shall be prepared by a licensed professional.

If access approaches or road improvements are to be added to the proposed development, the applicant is required to provide such improvement plans to the Public Works Department for review.

If there are existing drainage facilities and storage pond existed on site, the developer is required to verify that the existing system and its onsite storage still have the adequate capacity and fully functional for the proposed development.

All National Pollution Discharge Elimination System (NPDES) storm water regulations and standards shall be met. It is possible that the quality of storm water may be affected by pollutants. The applicant shall mitigate any impacts associated with storm water contamination caused by this project. A Storm Water Pollution Prevention Plan (SWPPP) is required for all projects 1-acre or more of site disturbance.

All stabilized construction on and off site access locations shall be constructed per the latest edition of the California Stormwater Quality Association (CASQA) details to effectively prevent tracking of sediment onto paved areas. If applicable, all BMPS to be inspected weekly and before and after each rain event. Repair or replace as necessary. The contractor shall abide all of the laws, ordinances, and regulations associated with the NPDES and the Clean Water Act.

Contractor shall be responsible for locating all underground utilities prior to the start of any work by contacting Underground Service Alert (USA) 48 hours prior to any excavation at 1-800-227-2600 Contractor shall be responsible for contacting the appropriate party in advance of any work for necessary

inspections in compliance to these plans, standard plans and standard specifications.



Picayune Rancheria
of
CHUKCHANSI INDIANS
49260 Chapel Hill, PO Box 2226 * Oakhurst, CA 93644 * (559) 412-5590

February 25, 2020

Robert Mansfield
Madera County Planning Department
200 W. 4th Street Suite #3100
Madera, CA 93637

Dear Mr. Mansfield,

Picayune Rancheria of the Chukchansi Indians has received your letter in regards to CUP – Chowchilla (020-120-003-000). At this time, we do not have concerns in regards to this project application.

Sincerely,

Heather Airey
THPO/Cultural Resources Director
559-676-9299
hairey@chukchansi-nsn.gov



Community and Economic Development Planning Division

Becky Beavers
Deputy Director

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

PROJECT REVIEW REQUEST

DATE February 04, 2020

Community Advisory Councils

- Ahwahnee Community Council
 Coarsegold Area Plan Committee

- North Fork Community Development Council
 Oakhurst Community Advisory Council

Review Agencies

- Madera County Agricultural Commissioner
 Madera County Sheriff's Office
 City of Chowchilla Planning Department
 City of Madera Planning Department
 California Department of Fish and Game
 California Department of Housing
 California Department of Transportation (CALTRANS)
 California Department of Water Resources
 California Regional Water Quality Control Board
 California Department of Conservation
 California Division of Oil and Gas
 San Joaquin Valley Unified Air Pollution Control District
 Archaeological Information Center - Bakersfield

Requesting Tribes

Other: _____

Homeowners Associations

- Bass Lake Homeowners Assn
 Bonadelle Ranchos #5
 Bonadelle Ranchos Neighborhood Committee
 Cascadel Homeowners Assn
 Goldside Estates
 Hidden Lake Estates Homeowners Assn
 Indian Lakes Estates Property Owner Assn
 Lake Shore Park Subdivision
 Madera Ranchos Neighborhood Committee
 Pierce Lake Estates
 Pines Civic Council
 Rolling Hills Citizens Assn
 Sumner Hill Homeowners Assn
 Yosemite Lakes Park Owner Assn

RETURN TO:

ROBERT MANSFIELD, Planning Department
200 West 4th Street
Madera, CA 93637
Phone: (559) 675-7821

REGARDING:

CUP #2020-003, Biorem Energy - Conditional Use Permit - Chowchilla (020-120-003-000)

The request consists of a Conditional Use Permit to allow To amend CUP #2016-007 to allow for biogas injection into PG&E infrastructure via scrubbing at source and transferring through private pipeline gathering system. The project is located on the northwest corner of the intersection of Avenue 21 and Road 4 (3197 Avenue 21) Chowchilla.

The attached application is being forwarded to you for your agency's review and comment. Please complete the attached Development Review form and return it to us prior to: February 18, 2020 If we do not receive comments from your Agency prior to this date, we will assume that your Agency has no comments to offer.

PLEASE ATTACH A COPY OF THIS COVER SHEET TO THE FRONT OF YOUR COMMENTS

NOTE: PLEASE WRITE LEGIBLY OR TYPE:

Application(s): CUP #2020-003

Return to: **Robert Mansfield, Planning Department**

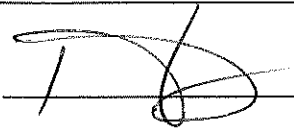
Biorem Energy

Diaryne Rancho of the Chuckchamsi Indian

Responding Agency: _____

Date: 2/25/20

Respondent's Signature: _____



1. Does your Agency or Department have a recommendation regarding the approval or denial of this project?

Approve

Deny

If your Agency or Department recommends denial of this project, please list the reasons below.

n/a

2. If the project is approved, what conditions of approval are recommended?

n/a

3. Please identify any existing regulations, standards, or routine processing procedures which would mitigate the potential impacts?

n/a

4. General Comments - Please attach on additional sheet.

NOTE: PLEASE WRITE LEGIBLY OR TYPE:

Application(s): CUP #2020-003

Return to: **Robert Mansfield, Planning Department**

Biorem Energy

Responding Agency: Picayune Rancheria of the Chukchansi Indians
 Contact Person: Heather Avey Signature: [Signature]
 Telephone No.: 559-674-9299 Date: 2/25/20

ENVIRONMENTAL REVIEW:

1. Is there sufficient information for you to evaluate the probable environmental impacts of this project?

 Yes

 No, the following information is needed: _____

2. What potential impacts will the project result in (e.g. change in traffic volumes, water quality, land use, soils air quality, etc.)? Be as precise as possible and answer only for your area of expertise.

 N/A

3. Are the potential impacts identified in Question 2, significant enough to warrant the preparation of an EIR?

 Yes No



Community and Economic Development Planning Division

Becky Beavers
Deputy Director

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

PROJECT REVIEW REQUEST

DATE February 04, 2020

Community Advisory Councils

- Ahwahnee Community Council
 Coarsegold Area Plan Committee

- North Fork Community Development Council
 Oakhurst Community Advisory Council

Review Agencies

- Madera County Agricultural Commissioner
 Madera County Sheriff's Office
 City of Chowchilla Planning Department
 City of Madera Planning Department
 California Department of Fish and Game
 California Department of Housing
 California Department of Transportation (CALTRANS)
 California Department of Water Resources
 California Regional Water Quality Control Board
 California Department of Conservation
 California Division of Oil and Gas
 San Joaquin Valley Unified Air Pollution Control District
 Archaeological Information Center - Bakersfield

- Requesting Tribes
 Other: _____

Homeowners Associations

- Bass Lake Homeowners Assn
 Bonadelle Ranchos #5
 Bonadelle Ranchos Neighborhood Committee
 Cascadel Homeowners Assn
 Goldside Estates
 Hidden Lake Estates Homeowners Assn
 Indian Lakes Estates Property Owner Assn
 Lake Shore Park Subdivision
 Madera Ranchos Neighborhood Committee
 Pierce Lake Estates
 Pines Civic Council
 Rolling Hills Citizens Assn
 Sumner Hill Homeowners Assn
 Yosemite Lakes Park Owner Assn

RETURN TO:

ROBERT MANSFIELD, Planning Department
200 West 4th Street
Madera, CA 93637
Phone: (559) 675-7821

REGARDING:

CUP #2020-003, Biorem Energy - Conditional Use Permit - Chowchilla (020-120-003-000)

The request consists of a Conditional Use Permit to allow To amend CUP #2016-007 to allow for biogas injection into PG&E infrastructure via scrubbing at source and transferring through private pipeline gathering system. The project is located on the northwest corner of the intersection of Avenue 21 and Road 4 (3197 Avenue 21) Chowchilla.

The attached application is being forwarded to you for your agency's review and comment. Please complete the attached Development Review form and return it to us prior to: February 18, 2020 If we do not receive comments from your Agency prior to this date, we will assume that your Agency has no comments to offer.

PLEASE ATTACH A COPY OF THIS COVER SHEET TO THE FRONT OF YOUR COMMENTS

NOTE: PLEASE WRITE LEGIBLY OR TYPE:

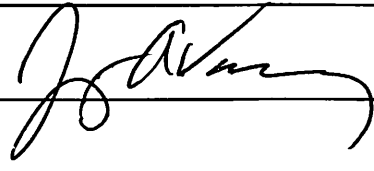
Application(s): CUP #2020-003

Return to: Robert Mansfield, Planning Department

Biorem Energy

Responding Agency: Madera County Sheriff's Office

Date: 2-13-2020

Respondent's Signature: 

1. Does your Agency or Department have a recommendation regarding the approval or denial of this project?

Approve

Deny

If your Agency or Department recommends denial of this project, please list the reasons below.

2. If the project is approved, what conditions of approval are recommended?

none

3. Please identify any existing regulations, standards, or routine processing procedures which would mitigate the potential impacts?

4. General Comments - Please attach on additional sheet.

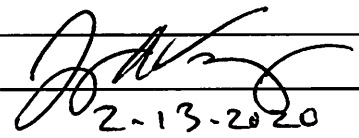
NOTE: PLEASE WRITE LEGIBLY OR TYPE:

Application(s): CUP #2020-003

Return to: Robert Mansfield, Planning Department

Biorem Energy

Responding Agency: Madera County Sheriff's Office

Contact Person: Jay Varney Signature: 

Telephone No.: 559-675-7777 Date: 2-13-2020

ENVIRONMENTAL REVIEW:

1. Is there sufficient information for you to evaluate the probable environmental impacts of this project?

Yes

No, the following information is needed: _____

2. What potential impacts will the project result in (e.g. change in traffic volumes, water quality, land use, soils air quality, etc.)? Be as precise as possible and answer only for your area of expertise.

none.

3. Are the potential impacts identified in Question 2, significant enough to warrant the preparation of an EIR?

Yes No

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

- 1. Project title:** CUP #2020-003 – Vlot Dairy CUP Amendment
- 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:** 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 subject property is located on the northwest corner of the intersection of Avenue 21 and Road 4 (3197 Avenue 21), Chowchilla.
- APN #: **020-120-003** (where the actual digester is located), 020-120-004, 020-120-011, 020-090-002, 020-090-003, 020-150-010, 020-160-015, 020-180-005, 020-181-002, 020-210-003
- 5. Project sponsor’s name and address:** Biorem Engineering
1060 Cactus Drive
Pocatello, ID
83204
- 6. General Plan Designation:** AE (Agricultural Exclusive)
- 7. Zoning:** ARE-40 (Agricultural, Rural, Exclusive – 40 Acre) District
- 8. Description of project:**
This is a request to amend Conditional Use Permit #2016-008 to allow for the scrubbing of biogas and then deposited into the CEE (California Energy Exchange) pipeline gathering system on Avenue 21. CEE owns the Unocal basin and injects directly in to PG&E’s infrastructure.

Existing Conditions:

The existing parcel is a part of the existing Vlot Dairy facility that was originally permitted in 1999 via CUP #99-06, with subsequent Conditional Use Permits to increase facility and heard sizes. The original dairy digester was permitted under Conditional Use Permit #2016-008 for the generation of electricity for on-site use.

9. Surrounding Land Uses and Setting:

Agricultural

10. Other Public Agencies Whose Approval is Required:

None

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 discussion.).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- | | | |
|----------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural/Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION (to be completed by Lead Agency)	
On the basis of this initial evaluation:	
<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signed:  Date: April 9, 2020

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 looks at the modernization of transportation analysis for transit-oriented infill projects. 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 specifically related to parking.

Land uses common in the area include agricultural uses (crops, grazing land, etc.). There are several vacant parcels also in the area. Some parcels have structures on them including the poultry farm adjacent to the project site and residential units.

(a - d) 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.

The applicant will be utilizing an existing structure on the property which does have visual characteristics of other structures in the area. Pipeline used for this project will be underground, and thus not a visible impact to the area.

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.

Based on provided documentation, no new lighting is being proposed.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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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.

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

Land uses common in the area is predominately agricultural, with scattered residential structures. There is an elementary (K - 3) school and a restaurant (Red Top Café) within 1/2 to 3/4 of a mile of the site.

(a - e) No Impact. The parcel and surrounding parcels are zoned agriculturally and are used for agriculturally oriented purposes as defined by County ordinance. The subject parcel also has approved Conditional Use Permits relating to the dairy operation. 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 Confined Animal Agricultural in the Rural Land Mapping Project of the Farmland Mapping and Monitoring Program of the California Resources Agency. This is consistent with dairy facilities.

The project will not violate the intent of the zoning ordinance in that it is consistent with current and expanding technologies being utilized on dairy facilities. 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.

The project is on a parcel that is enrolled in the Williamson Act. This project will not be inconsistent with the provisions of the Williamson Act or with operations on site.

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.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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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:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with, or obstruct implementation of, the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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 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.

(a - d) Less Than Significant Impact. The applicant is proposing to connect to a pipeline that will deliver generated biogas from an existing dairy digester to a system that is a part of the PG&E infrastructure.

Potentially the project could have impacts to sensitive receptors from odor release should anything happen to the pipeline.

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).

Alview Elementary is approximately ½ mile south of the project site. It serves K – 3 grades on a 9.47 acre site. Red Top Café is approximately ¾ of a mile north along Road 4. While adjacent to cropland associated with the dairy, the actual work being done for this application is more than ½ mile away. The project itself will not increase herd size, therefore there is no potential of increased odor generation. If anything, under normal operation, this project has the potential of reducing the odor generation of the project with the capture of gases from decomposing manure, therefore this is less than significant of an impact.

While there are residences in the vicinity of the project, the concentration of those residences is such that any pollutant and odor concentrations will have dispersed enough to not be a significant factor. This also takes in to account that the number of events per weeks is, per the applicant’s Operational Statement, limited to only three days a week, will not significantly increase potential pollutant levels in the area from vehicle exhaust.

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.

A review of available records indicates that there have been no odor complaints from the subject project site. Aside from construction activities that are known to produce impacts to sensitive generators, the operation of this facility will not be an impact.

Emissions associated with dairy digester operations would depend on several factors, such as the size and type of digester, any equipment needed for pre-processing manure, the increased truck traffic on local road networks, and the post processing of the biogas.

The basis of the project is the capture of gases produced by the decomposition of dairy manure and utilize them for energy production purposes. This in and of itself will have the long-term effect of reducing air quality impacts. While it is acknowledged that this is just one project, it has the long term potential of fostering other projects that will then have the ongoing effect of reducing other air quality impacts.

In regards to operational criteria air pollutant emissions, additional sources and emissions would include any additional diesel equipment on-site for pre-processing, increased truck traffic (in this case the transport of the pathogen free fertilizer that is an end component sold by the partner in this project), and post production of biogas.

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.

Odors from raising livestock are exempt from direct regulation by the local air quality jurisdiction under California state law (CHSC §41705(a)). That being said, odors can still be considered a perceived nuisance and an environmental impact. Typical manure management operations at dairies include collection, treatment, storage and reuse of the manure. Manure management at dairies without incorporation of digester facilities typically flush or scrape manure into on-site storage ponds or stockpiles, respectively, or a combination of these techniques are used. Manure in storage ponds and stockpiles would naturally undergo anaerobic decomposition, and as a result, odorous compounds like ammonia and hydrogen sulfide could be released into the environment. Especially when the surface layer of the manure is agitated. However, in the operation of a dairy digester facility, the manure would be flushed, scraped or transported into the digester, which would limit its' open air degradation. Operation of a dairy digester facility is anticipated to reduce odors currently associated with dairy waste products since anaerobic digestion occurs in a closed system. Volatile organic compounds are broken down through the anaerobic digestion process, and exhaust is generally processed in a more controlled environment.

However, the transport, storage and pre-processing activities of the odiferous cow manure could produce nuisance odors at digesters.

With mitigations and conditions of approval, this impact will remain less than significant.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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.

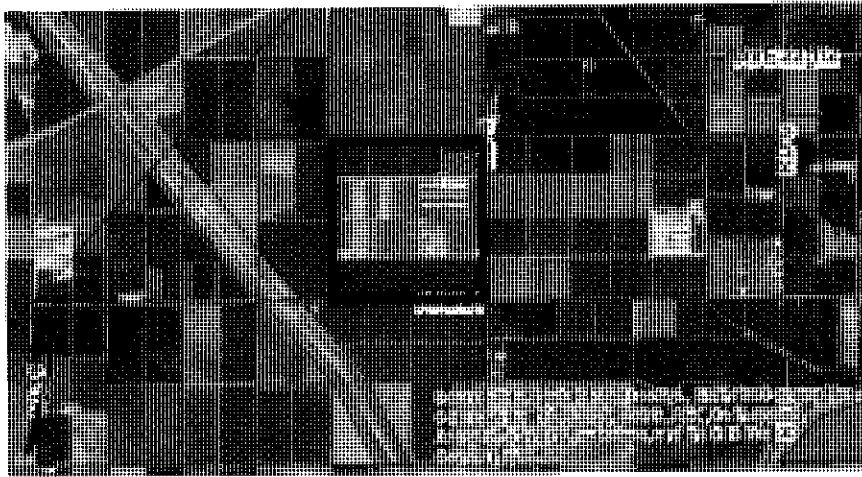
(a - f) No Impact. There are species of note in this quadrant as defined by the Fish and Wildlife Database. However, due to the limited nature of the project, and the fact that the entire area has been developed and continuously used for agricultural purposes for decades, the chances of any of these species being in the area of the project is quite remote.

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. 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.

There are no federally identified wetlands on the project site. The parcel already has structures on it, as does parcels in the immediate vicinity. The chances of any of the species identified in the area being on this parcel are minimal at best.

The site has been a dairy since at least the late 1990s, so development and operations have been going on for some time. As a result, the chances of any of the species listed below being on the project site are less than likely. There is still the chance of potential migration, but said migration would be brief in nature given operations.

With the exception of the San Joaquin Flood Bypass (Chowchilla Bypass) proximate to the property, which is typically dry with no observed habitats, there are no streams or rivers in the vicinity of this project, no fish migration will be impacted. While the project itself may not interfere with the migration of wildlife species, the construction of it will have a temporary effect on the migratory habit of species. This is due to the fact that most animals tend to shy away from areas that they perceive to be dangerous or hazardous. With loud noise and heavy equipment involved, this type of situation will be in effect during construction of the project. This will be temporary in nature for the duration of the construction. Operationally, noise is not anticipated to be an issue.



There are no wetlands, federally listed or otherwise, on the parcel involved with this project. There are no riparian areas (relating to or living or located on the bank of a natural watercourse (as a river) or sometimes of a lake or a tidewater) on the parcel. There are no streams or bodies of water of which migratory fish or other species that would use bodies of water would be impacted by the project. There is the San Joaquin Flood Bypass (Chowchilla Bypass) proximate to the property, but is typically dry with no observed habitats.

There are no habitats identified on this parcel, so no modifications are expected as a result. While there are candidate species identified in the quadrangle in which this project is located, given the development that has occurred in the area over the years, the chances of any of the listed species being on the parcel are less than likely.

While the list below shows a few species listed in the quadrangle in which this project is located, this does not necessarily mean that these species are actually located on the project site either in a habitat setting or migrating through.

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.

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 (CNDDDB), 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
Western Spadefoot	None	None	SSC	None
Swainson's Hawk	None	Threatened	None	None
Coast Horned Lizard	None	None	SSC	None
Hoover's Cryptantha	None	None	None	1A
Heartscale	None	None	None	1B.2
Lesser Saltscare	None	None	None	1B.1
Subtle Orache	None	None	None	1B.2
Recurved Larkspur	None	None	None	1B.2

Bliss Ranch 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

Surrounding quadrangles indicate additional species than what is shown for the Biola Quadrangle. However, given development and land uses in the area, the chances of impacts of species from this project on other quadrangles is not likely to occur, and thus less than significant.

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, and there are some residential uses in the area, so the chances of habitats being present for nesting or migratory species are minimal.

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 USFWS, 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.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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V. CULTURAL RESOURCES

Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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.

California Environmental Quality Act (CEQA) §15064.5 mainly describes historical and archaeological resources that need to be taken in to 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 half way 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) No Impact. 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.). There is no additional ground disturbance being proposed as a result of this project. The potential of finding any previously unknown archaeological or historical resources on site is less than likely.

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 responded with no concerns or comments.

If any of the tribes responded and requested additional reviews, consultations or studies of the site prior to further processing of the project, the County would have coordinated contact with the applicant and tribal representatives.

If any resources were found on site, their exact nature and location would not be identified by the County for safety, confidentiality and respect of the tribal resource. That said, mitigations would be incorporated in conjunction with tribal input as necessary.

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

Responses:

(a - b) No 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 intended use of the project is the production of biogas that will be utilized in the production of energy for both the dairy as well as selling to the PG&E infrastructure. This in and of itself will lessen any potential impacts due to the sustainable nature of the source material.

During the operational period of the project, there will be ongoing trip generation. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore the resulting energy consumption (fuel usage) cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful and unnecessary use of energy by vehicles.

VII. GEOLOGY AND SOILS

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault 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?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

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

c) Be located on a 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?

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?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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 portions, 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 flood 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.

(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.

San Andreas Fault: 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, groundshaking is the primary seismic hazard in Madera County. The valley portion of Madera County is located on alluvium deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking 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.

(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 localized 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.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 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 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 .

(a) Less than Significant Impact. Dairies by definition would generate components of greenhouse gases by the decomposition process of manure. However, this project is designed to capture the majority of those gases and in turn generate electricity. This process will reduce the greenhouse gas generation from this facility. While it is not of a significant amount when viewed in the larger context, it still is a reduction.

Benefits of digesters include the capture of biogas that would have been emitted anyway because of the nature of organic waste management at the facility where the digester is in operation. By capturing and combusting biogas, anaerobic digesters are preventing fugitive methane emissions. Methane is a potent GHG with a global warming potential 25 times that of carbon dioxide. When the captured biogas is combusted, methane is converted to carbon dioxide and water, thus resulting in a net GHG emissions reduction.

Prior to installation of the digester system, GHG's were emitted into the air via the open top pond system typically found at dairies. The Biorem system converts the biogas into energy with the remaining exhaust filtered through tier 4 exhaust systems. By eliminating the GHG emissions, via closed and covered ponds, the air quality is improved versus the old system.

In regards to operations, the overall impact of operations of the assumed dairy digesters to be built in the next 10 years would be a net decrease in GHG emissions of 1,650,014 metric tons of Carbon Dioxide emissions per year. The majority of this reduction is due to methane capture through the closed system inherent in the dairy digester process, whereas conventional manure storage structures result in large quantities of methane release into the atmosphere from the anaerobic digestion of animal waste.

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

Digester development and operations would comply with applicable County plans, policies and regulations adopted for the purpose of reducing the emissions of GHG's. The project would directly support several GHG reduction measures contained in AB 32 (increased renewables mix and high recycling/zero waste) which would also be beneficial in meeting any goals.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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, corrosivity, 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.

(a - b) 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. The operation will include minimal use of oil as a lubricant to the engine, but no new hazardous materials are expected as a result of this project. There will be no change to the dairy facility operations in their use of materials as a result of this project.

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 site is not located on or near any hazardous waste storage facilities, or on or near any brownfields sites as indicated by the Environmental Protection Agency.

The project is located approximately one mile from Madera airport. The project parcel is in an airport/airspace overlay zone. The project is located outside of the County's Airport Land Use Compatibility Zone.

(c) Less Than Significant Impact. The proposed project involves the production of biogas generated through the anaerobic digestion process. The biogas would be captured and could be combusted in a flare, used directly in internal combustion engines to produce electricity or heat, or upgraded to biomethane through the removal of certain components.

Methane is not toxic, but handling methane can be hazardous and it is flammable.

Unintentional releases of biogas from dairy digester facilities or pipelines could pose risks to human health and safety. For example, biogas could be released from a leak or rupture of the digester facility or one of the pipe segments. If the gas reaches a combustible mixture and an ignition source is present, a fire and/or explosion could occur, resulting in injury or death.

(d) No Impact. 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.

(e) Less Than Significant Impact. The project is not located near either airport in the County, the closest is the Chowchilla Airport which is 12.43 miles north-easterly of the project site. There is, however, a private agricultural air strip in proximity to the site, thus placing the project site within an airport/airspace overlay district. As a result, the construction and operation of the project will have to conform to the mitigation provided which is derived from the Airport Land Use Commission Plan (ALUCP).

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

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.

With mitigations, this impact will remain as less than significant.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

(a) Less Than Significant Impact. During site grading and construction related to dairy digester facilities, large areas of bare soil could be exposed to erosion by wind and water for extended periods of time. Bare soil surfaces are more likely to erode than vegetated areas due to the lack of dispersion, infiltration and retention created by covering vegetation. Soil disturbance, excavation, and grading activities could increase erosion and

sedimentation to storm drains that empty to local surface waters. Construction water quality impacts are temporary and managed through the standard industry accepted Best Management Practices (BMPs). Contractors are responsible for implementing these practices during the project.

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.

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

If nothing else, the digester project will be a benefit to groundwater sources. Any liquids from the digester will be utilized either in dairy crop irrigation or treated and used for facility wash down processes. This will diminish the use of groundwater sources.

(c) Less Than Significant Impact. There will be no streams or rivers altered as a result of this project. There may be slight changes in erosion patterns as a result of any new structures and impervious surfaces being created as a result of this project. Given that the parcel is topographically flat, any erosion will be insignificant. No instances of flooding as a result of diversion is expected as a result of the project.

Rainfall is unable to percolate into paving that is expected to be on each site (building pad, driveways, structures, etc.) 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. It is possible that the quality of storm water may be affected by pollution such as, but not limited to, oil, grease, fuel, dissolved metals from batteries and glycols from automotive coolant or antifreeze. The applicant shall mitigate any impacts associated with storm water contamination caused by this project.

There is the potential of localized flooding that could occur in the vicinity of the project. This is dependent on rain fall, site features and drainage.

(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.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

(a - b) No Impact. No impacts identified as a result of this proposed 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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XIII. NOISE

Would the project result in:

- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Responses:

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 type 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.

(a - b) Less than Significant Impact. It is anticipated that there will be a temporary increase in noise during the construction phase of this project. Minimal noise may occur as a result of the operations of this facility. The engine portion of this project is to be located in an enclosed structure, which would muffle any significant amounts of noise that potentially could be generated.

Operationally, there is no anticipated increase in background noise. The surrounding area is sparsely populated. Noise from localized point sources (sources that can be identified and are at a fixed location) typically decreases by approximately 6 dBA (decibels attenuated) with each doubling of distance from the source. While there is an increase in herd size, given the location of the project, and the fact that it is not near any population centers, the amount of noise generation expected is insignificant.

With the exception of construction related activities, there is no known instance of groundborne vibrations related to this project. What groundborne vibrations are generated as a result of construction, they will be temporary in nature for the duration of construction. No operational vibrations are expected, and if any are generated will be localized to the point of origin.

c) No Impact. The project is not within proximity to a known airport. County records indicate that there is an agriculturally related airstrip, and the project is in an Airport/Airspace Overlay district. This project will not interfere with flight patterns as an overall whole, however certain design criteria will need to be adhered to to avoid interference of flight (i.e. glare, instrument interference, etc.).

Regarding ground-borne vibration levels, none are significantly expected. There might be some minor vibrations as trucks enter and leave, but they are not expected to be significant.

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 (L)	Industrial (H)	Agricultural
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 (L)	AM	55	60	60	65	60
	PM	50	55	55	60	55
Industrial (H)	AM	60	65	65	70	65
	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 People 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	Architectural damage and possibly minor structural damage

Source: Whiffen and Leonard 1971

XIV. POPULATION AND HOUSING

Would the project:

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)?

Potentially Significant Impact Less Than Significant With Mitigation Incorporation Less Than Significant Impact No Impact

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Responses:

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

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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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:

i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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. While this is not technically a residential development by the strict determination, given that RV Park Facilities are considered a type of housing in the Health & Safety code, it is still a concern.

(a - i) Less Than Significant Impact. Operationally, there is the chance that unanticipated occurrences of wildfire could happen. There is also the possibility of unanticipated structural fires from any number of causes that could occur as a direct or indirect result of this project.

The facility is not near any fire station. It will need to be constructed pursuant to most current building and life safety codes at time of construction.

There is the minimal chance of "flare off" from the generation of gases as a result of decomposition of manure. However, if properly constructed and maintained, the chances are minimal of that occurring.

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.

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 City of Hayward v. Board of Trustees, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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

XVII. TRANSPORTATION

Would the project:

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

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.

State 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 land 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.

The site would be expected to have its own access to the adjacent local roadway. All local roadways in the rural areas of the county are typically straight, two-laned roads in a relatively flat terrain. Overall, visibility and sight distances are considered good and most of the area is currently used for agricultural purposes.

According to the Madera County Transportation Commission (MCTC), the traffic counts for the area range from 142 north bound to 114 south bound vehicles along Road 4 north of its' intersection with Avenue 18 ½, which is the closest intersection to this project site for which there are traffic counts for 2018. The project anticipates generating 7 cars and 10 trucks per day between 8am and 5pm during the period of construction. Post construction, it is anticipated that one maintenance vehicle directly related to the digester system will come on site only as needed for mechanical issues. Customers who purchase the fertilizer

byproduct of the system typically will not visit the site. The applicant anticipates an occasional visit as needed by customers, of which will only last about an hour. There will be no change in traffic patterns or customer visits as they relate to the actual dairy operations.

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

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 dead-end 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.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- | | | | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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 half way 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. The only Tribe that responded back was the Table Mountain Rancheria, and they indicated they had no concerns with the project.

(a – i, ii) No Impact. No impacts have been identified as a result of this project. Tribes were contacted as a result of standard review process. No responses were received.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS				
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 area. 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.

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.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XX. WILDFIRE				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

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

As previously discussed, there is no direct ignitions sources that could spark a wildfire in the area. However, due to the site being surrounded by agricultural crops, depending on various factors – including wind, moisture content of crops, fuel breaks and the like – the spread of any wildfire type incidents could impact evacuation routes from the site. Pollutant (smoke) concentrations can also be a concern depending on the severity of potential fires, which could hamper not just health issues, but also visibility in the area.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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. Construction of the project would not substantially degrade the quality of the environment or reduce the habitat of fish or wildlife species. There are no wetlands identified, so impacts would not occur. The proposed project would not cause population numbers of any special status species to drop below self-sustaining levels or threaten to eliminate a plant or animal community. The construction and eventual operation will not reduce the number or restrict the range of a rare plant or animal.

(b) Less Than Significant Impact. Overall construction and operation of this project will be minimal in light of the whole.

(c) No Impact. The project would not adversely affect human beings either directly or indirectly. Environmental parameters with potential to impact human health would include impacts from changes in air quality and existing hazards and hazardous materials use. Potential impacts from hazards and hazardous materials or air quality, and other environmental resources that could affect human beings, would be reduced to a less than significant level with the implementation of mitigation measures identified in this document.

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/CNDDDB/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

MND 2020-04

1

April 9, 2020

MITIGATED NEGATIVE DECLARATION

MND

RE: CUP #2020-003 – Vlot Dairy

LOCATION AND DESCRIPTION OF PROJECT:

The subject property is located on the northwest corner of the intersection of Avenue 21 and Road 4 (3197 Avenue 21), Chowchilla.

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.

This is a request to amend Conditional Use Permit #2016-008 to allow for the scrubbing of biogas and then deposited into the CEE (California Energy Exchange) pipeline gathering system on Avenue 21. CEE owns the Unocal basin and injects directly in to PG&E's infrastructure.

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: April 9, 2020

FILED:

PROJECT APPROVED:

MITIGATION MONITORING REPORT

MND # 2020-04

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance	
						Initials	Date
Aesthetics							
	All lighting associated with this project shall be hooded and directed away from neighboring parcels.	Construction and operations	Planning and building	Planning			
Agricultural Resources							
Air Quality							
	No idling of vehicles longer than 10 minutes.	Operations	Planning	Planning			
	No on site operations to generate nuisances (odor, dust, etc.)	Operations	Env. Hlth	Env. Hlth			
Biological Resources							
Cultural Resources							
	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.						
	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 biological traits—as those of a Native American, California 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 Likely Descendent who would determine the manner in which the remains are treated.						
Geology and Soils							

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
	For any grading, must obtain grading permits.	construction	Public Works	Public Works				
	Do not create situations where rainfall will create substantial erosion events.	construction and operations	Public Works	Public Works				
Greenhouse Gas Emissions								
	No idling of vehicles longer than 10 minutes.							
Hazards and Hazardous Materials								
Hydrology and Water Quality								
	Applicant shall create and maintain a grading and erosion control plan.	Operations	Public Works	Public Works				
	Applicant shall get grading permits as needed.	Operations	Public Works	Public Works				
Land Use and Planning								
Mineral Resources								
Noise								
	Shall maintain noise levels pursuant to County General Plan	Operations	Planning	Planning				
Population and Housing								
Public Services								
Recreation								
Transportation and Traffic								
Utilities and Service Systems								

